



Ca' Foscari
University
of Venice

Master's degree in
Environmental Humanities

Final Thesis

**Multispecies
Communication,
Listening to
Non-Human
Animals through
Literature, Art and
Cinema**

Supervisor

Ch. Prof. Lucio De Capitani

Assistant supervisor

Ch. Timeto Federica Giovanna

Graduand

Isadora Salvador

Matriculation Number 876915

Academic Year

2023 / 2024



Ca' Foscari
University
of Venice

Abstract

This thesis proposes the possibility of a (public) transmission of interspecies language through art forms.

The paper is divided into five chapters and will be conducted under the lens of eco-feminist studies, which are fundamental to the deconstruction of the anthropocentric paradigm.

-The first chapter will reconstruct the non-human-human divide from the 15th century to the present day,

-The second chapter will provide the critical framework of this thesis, through an overview of feminist movements which are strongly linked to animals' rights struggle

-The third chapter will focus on language and highlight how its perception as purely human can be dismissed through alternative proposals and developments.

-The fourth chapter will be a case study on the language of some cetaceans, flanked by an eco-feminist analysis of *Undrowned* by Alexis Gumbs.

-The fifth and final chapter will analyse a film by Massimo d'Anolfi and Martina Parenti and an art exhibition at the Venice Biennale by Carlos Casas, followed by author interviews intended as artistic demonstrations of interspecies communication

Table of Contents

Introduction “For you they are birds, for me they are voices in the forest”	4
Chapter 1. Historical Overview	11
1.1 In Between.....	11
1.2 Ornamental Lexicon.....	14
1.3 Homo Sapiens-Sapiens.....	17
1.4 Modern Outcomes.....	20
1.5 Conclusion.....	22
Chapter 1. References.....	23
Chapter 2. Feminist Movement Overview	25
2.1 Can They Suffer?.....	25
2.2 Women Empowerment.....	27
2.3 Recent Updates.....	27
2.4 Conclusion.....	34
Chapter 2. References.....	35
Chapter 3. Widening the Linguistic Assumption	38
3.1 Uncomplete.....	38
3.2 Silencing and Making Heard.....	39
3.3 Post Humanist Critique.....	42
3.4 Eco-Semiotics.....	44
3.5 Swarm Intelligence.....	46
3.6 Body Language.....	48
3.7 Conclusion.....	46
Chapter 3. References.....	53
Chapter 4. Communicating Cetaceans Through Literature	56
4.1 <i>Undrowned</i> Overview.....	56
4.2 Ocean Pollution.....	57

4.3 Dolphins.....	59
4.4 Orcas.....	63
4.5 Humpback Whales.....	66
4.6 For Indigenous people from Cook Island, Whales and Dolphins are Legal People.....	74
4.7 Conclusion.....	75
Chapter 4. References.....	77
Chapter 5. Multispecies Communication through Cinema and Art Forms.....	80
5.1 Medieval Bestiaries.....	80
5.2 <i>Bestiari Erbari e Lapidari</i> by Martina Parenti and D’Anolfi D’Anolfi.....	82
5.3 Massimo D’Anolfi Interview.....	84
5.4 <i>Bestiaries</i> , Venice Biennale Catalonia Pavillon.....	89
5.5 Carols Casas Interview.....	90
5.6 Discussion.....	96
Chapter 5. References.....	99
Conclusions.....	101
Ringraziamenti.....	103

Introduction: “For you they are birds, for me they are voices in the forest¹”

The idea for this thesis came to me one summer evening at a campsite near Marseilles. It was the first night of my holiday and as I got up around three o'clock to look for water, I heard the cry of an animal; sleepy and confused as I was at that moment, I could not understand what kind of creature had produced it, but I thought: “This could be the subject for my thesis: animal communication”. I have always lived in the company of other animals, mostly cats (Cleo, Macchia, Lilli, Mimina, Tigro, Grace, Remigio) but also a few dogs (Beppino and Nebbia), a rabbit (Igor), a guinea pig (Olieg), and a few fish.

I have always enjoyed spending time observing them. With the cats, especially Lilli, I have shared very strong bonds of mutual understanding, moments of infinite sweetness, like when on cold winter days we would 'watch' television together, and she would rest her little head right at my heart as if to listen to its beating.

Another one of my passions is documentaries, which were also part of my post-high school routine and even earlier in the afternoons spent on the couch with my grandmother watching a programme on Rai Tre, watching nature, in all its variables, with my gaze or through devices is simply something I feel the need to do to feel good.

Spending time in non-man-made spaces, observing the flow of the slight movements of the natural world allows me to feel part of a 'whole', reconnected to something bigger, in a space where the hours flow differently, slower, and the present takes on a circular form, without its linearity causing me any anxiety.

I remember once, in a park near Padua, observing and listening to the chattering of some parakeets that had 'colonised' some birch trees, I thought: “They may be talking”; their voices, which came to me in response to my movements, to the arrival of other birds, suggested to me the possibility of discourse other than that normally considered in everyday life.

Words, in fact, have always appealed to me, almost as much as sounds, music, and noises; having then obtained my first degree in Modern Literature, languages and linguistic matters have always fascinated me.

Leopardi, in his *Operette Morali* (1832), dedicates a song to birds, which he defines as 'naturally the happiest creatures in the world' because they always sing and are always on the move, thus evading the long shadow of boredom that so plagued the poet:

Wisely did he cause the earth and air to be strewn with animals that all day long, putting forth resounding and solemn voices of joy, almost as if they were applauding universal life, and inciting other living creatures to rejoicing, making continual witnesses, however false, of the happiness of things (Leopardi in Prete 1992, 78.)

¹ The quotation is from Stefen Fold, *Sound and Sentiment* (1982), 64

Looking at birds, Steven Feld in his book *Sound and Sentiment* (1982), shares the precious results of his research in Papua New Guinea with the indigenous Kaluli people, for whom those animals are a fundamental part of their culture and rituals. Their song is, in fact, the mode through which they express joy, grief, and mourning, as well as a bridge between the world of the living and the dead: the dead are said to transform into birds at the moment of death.

It is the sense of the world and the natural condition that makes the sound of birds, lament, poetics and song inseparably linked not only in mythical imagination and ritual performance but also simultaneously throughout the forest and in the treetops. (Feld, 1982, 78)

In other words, the Kaluli culture rationalises the sound of nature as its own and then turns it back into the form of what is natural and what is human in nature. In his work, Feld succeeds in returning the sounds of the forest to us written in a pentagram; the recordings he used for the studio were assembled into the *Voices of the Rain Forest* cd album.

The record represented a cultural and environmental political action, thanks to the royalty, in fact, the Bosavi People Found was set up, which for these years has offered direct support to the Bosavi people and helped organisations concerned with the survival of cultures to protect tropical rainforests.

According to Maria Bertolini, a scientific mediator at the Muse in Trento, involved in the development of a project on soundscapes, sound contributes to establishing an identity bond with places. It is a constituent part of our culture, so much so that UNESCO recognises it as 'material and immaterial heritage, an essential landscape component. (Bertolini in il Dolomiti, 2024)

It is not difficult to notice, however, how even the sound component, together with the species that produce it, is gradually disappearing in the hubbub of our societies. This was noted by Rachel Carson's *Silent Spring* (1962), whose subject is the sudden stillness of fields following the use of DDT (a pesticide), and it was noted by David Monacchi, interdisciplinary artist, sound engineer, inventor and author.

He is responsible for the Fragments of Extinction project for which he developed an ultra-high-definition 3D patent based on recordings he made since 2002 in the Amazon, Congo Basin and Borneo, with the aim of creating awareness of the global biodiversity crisis. With the project, Monacchi developed an approach to scientific dissemination through sound art for the immersive enjoyment of natural sound ecosystems, from which several deep listening spaces were born, both permanent and mobile, in Italy and Denmark.

Similarly, in 1970, Roger Payne, who will be discussed in the third chapter of this paper, was off the coast 'to make a documentary' and recorded the sounds of humpback whales on a record, *Sound of the Humpback Whales*, which was very successful. In addition to winning a platinum record, Payne succeeded through this publication in bringing people closer to this species that was experiencing one of the worst moments of its existence at the time due to unrestrained hunting. The resonance of his work was such that a few years after its publication several laws were passed to protect the species, and the sounds of humpback whales were even included in the Golden Globe, a disc sent into space

that contains sounds and images of our planet, and our species, to be transmitted in the event of a hypothetical encounter with extraterrestrials.

Another image that I find functional to the description of the content of this thesis is part of the animated film *Odette and the Swan Lake* (1981). In this scene, the queen, locked in a cage by an evil magician, talks non-stop about her birthday preparations. The wizard, exhausted by the wear and tear, then decides to silence her by transforming her into an animal: donkey, goat, monkey, but there is nothing to be done, the mumbling is infeasible!

In its simplicity, this scene describes what is the founding thesis of this paper: non-human-animal communication.

Yet human beings have always found confirmation of their superiority over other living species, the hallmark of their uniqueness in this capacity. In Coetzee's book *The Lives of Animals* (1999), one of the protagonists, Elizabeth Costello, talks about animals who refuse to speak and maintain the dignity of silence.

"I disagree they speak, and we refuse to grant them the dignity of being heard!" (Coetzee 1999,124), notes Wendi Doniger in her short essay in response to the book.

I cannot but agree. As will be developed in the following chapters, this refusal to listen has served as a weapon to legitimise the oppression and exploitation of billions of living beings. The mechanism is the same as that used in the systems of subjugation of many other human categories, of the so-called, quoting Spivak, Subalterns, the liminal categories to the roles of power.

For this reason, the first chapter of this thesis, *Historical Overview*, is intended to be, starting with the Middle Ages, an analysis of the nature-culture divide in which the various forms of oppression and the various subjects involved will be equally considered. Following the path masterfully outlined (among others) by Adams the reconstruction of the foundations of speciesism, i.e. the prevailing theory that elevates our species above all others, will be accompanied by an eco-feminist analysis, since, as it will be noted, the exploitation of other animals and the oppression of women in Western society are strongly linked by similarly articulated processes and systems. In the historical excursus covered in this chapter, we will discuss how many of the milestones of our society, especially since the Enlightenment period (Linnaeus' taxonomy, Darwin's evolutionary theory), have developed, consciously and unconsciously, precisely in the wake of this thought, thus shaping the visible and the perception derived from it to reflect the power hierarchies of the time and by which our society is still strongly permeated today.

The second chapter, *Overview of Feminist Movements* traces the milestones of feminism's establishment and the parallel path of animal rights intertwined with it. Without claiming to be exhaustive, the chapter chronologically outlines the movement's developments and diversifications. Feminist movements are, in fact, strongly linked to the commitment to animal liberation, certainly not because of natural causes but rather because of social conditions. Furthermore, the feminist approach strongly shared and supported here will act as a red thread to the discourse reported here.

In the third chapter: *The Linguistic Assumption*, following in Derrida's footsteps, *The Animal That Therefore I Am* (2002) will discuss the very concept of language. To this end, the inclusion of body language and other types of intelligence, such as semiotic echo and swarm intelligence, will enter into the discussion precisely to demonstrate the narrowness of conceiving of language as solely verbal. The inclusion of a look at artificial intelligence was also considered useful in this perspective, as it, given the most recent developments, in the same way that an in-depth comparison with other species does, contributes to questioning what were considered specifically human qualities. The idea is that we are all (humans and non-humans) involved in a world ecosystem that somehow communicates with us through its evolutions and changes, which any species involved cannot exempt itself (for its own survival) from deciphering.

Two other chapters will follow these more theoretical ones in the form of case studies. These arose from the question, "How can this anti-speciesist communicative possibility be communicated to the public?" My answer to this question is through art, in all its forms.

With this in mind, the fourth chapter, *Interspecies Communication Through Literature*, will look at Alexis Pauline Gumbs' book *Undrowned: Black Feminist Lessons from Marine Mammals* (2022), which focuses on cetaceans and marine species. Dolphins, Orcas and Humpback Whales, due to their rich sound systems, are among the most studied species in the field of animal communication. The author also skilfully interweaves the stories told with social issues such as Black Feminism, colonialism and marginalisation in general. Thus, following her example, the three species discussed (Orcas, Dolphins and Humpback Whales) will be accompanied by a commentary aimed at exposing their communicative capacities, in order to build in the reader a feeling of empathy, posited as fundamental by feminist critics to readjust our role in this planet. Empathy also responds to an emotional, perceptive modality that detaches itself from the frigid 'visual' rationalism that has allowed so much suffering and re-appropriates us with the shared value of our feelings, fundamental to the recovery of our now lost 'humanity' or 'animality'.

The second case study, in the fifth and final chapter, *Interspecies Communication Through Art and Cinema*, starts with a common word: bestiaries. The literary genre of bestiaries, which developed in the early Middle Ages, can be understood today as a summary of the way humankind looked at other animals in the past. In them, these are described as shrouded in an aura of mystery, often metaphorized to convey moral, secular and Christian teachings. The loss of this sacredness, this 'admiration', for the unknown, which followed the development of the modern sciences – sanctioning the supremacy of the mind, of reason over all the other senses at our disposal – is understood, in this paper, as a direct cause of the denigration and discrimination aimed at non-humans.

The film that opens this discussion, *Bestiari Erbari e Lapidari* (2024) by Massimo d'Anolfi and Martina Parenti, perfectly sums up the modern way in which the human animal looks at other animals. A look that throughout this first act of the film, made through the report of slides from the Munich archive, shows us the suffering caused by this supposed superiority in undisguised terms. All the

animals portrayed are in fact victims of violence: in circuses, on farms, in laboratories, during exploratory expeditions. The fact that these slides, moreover, have survived to the present day and bear witness to the human approach to other species confirms that this extremely violent process of annulment of life other than human life is perfectly normalised in our society, so much so that it can be reproduced with impunity as if the bodies subjected to it did not feel pain, or were not objects of torture. Indeed, the violence portrayed in the original footage is not intended as a 'shame' to be hidden, but, on the contrary, as an artefact to be handed down. In this respect, however, the film is very successful in presenting such footage in a different light at the right time, without indulging in moralising, but at the same time not letting us off the hook for confronting our species and its total lack of morality.

Different connotation is given the word 'Bestiaries' in the last case study presented in this thesis: the installation of the same name in the Catalonia pavilion presented at the Venice Biennale by artist and documentary filmmaker Carlos Casas. *A medieval text inspires bestiaries by Carlos Casas: Le dispute de l'Ane*, in which, following a reversal of roles, a monk finds himself being judged by a court made up of seven different species: bees, bats, snakes, elephants, dolphins, parrots, donkeys.

The artist re-proposes the process by immersing us in an acoustic journey consisting of seven corresponding listening stations. Through a sophisticated sound restitution system, the spectator can hear the vibrations and sounds of the species described. The work thus resizes the human presence, which, this time, ceding the stage as the protagonist to the other species, is placed in a listening position.

How this act is performed, moreover, was considered consusstently with what was discussed in the paper as it invites us to leave the domain of sight to approach auditory perceptibility. This is, in fact, the suggestion that is attempted through this work.

As the success of *Sound of the Humpback Whales*, and *Sound of the Forest*, demonstrate, learning to listen to other species can be crucial to their preservation and to reshaping our attitudes towards them. As with humans, giving oneself time to listen means detaching oneself from one's own egocentricity and allowing oneself to relate to others. As Timeto points out:

The ethical response to animal otherness does not deny the existence of a feeling proper to the animal, but is linked to feeling the feeling, 'a feeling' with the other that concerns not so much the correct interpretation of a phenomenon but the attention to understanding what the other has to communicate to us. (Timeto, 2024, 121)

Conceiving of other living beings as speakers, moreover, gives us the opportunity to give a social dimension to other species and to understand how they, too, live in a relational fabric that, in some cases, takes the form (in human terms) of real cultures. On the other hand, this greatly exaggerates the destructive weight of the sixth mass extinction we have created, because what we are losing, what is being lost, is much more than a number.

Likewise, reflecting on the processes that made, and make possible, the continuation of this extermination can teach us to recognise and avoid them even when they occur in the smallest contexts

of our everyday lives. For this reason, an analysis of inequalities can only be intersectional. To conclude with the words of Fannie Lou Hamer, “Nobody is free until everybody is free”. This thesis is intended to help free the human and non-human categories from the silence imposed on them by the ruling classes in the hope that they will soon finally gain the dignity and space they are due.

References:

Carson, Rachel. 2023. *Primavera silenziosa*. Italia: Feltrinelli Editore.

Casas, Carlos, dir. 2024. *Bestiaries*.

Coetzee, J. M. 1999. *The Lives of Animals*. Princeton: Princeton University Press.

D'Anolfi, Massimo, and Martina Parenti, dirs. 2024. *Bestiari, Erbari, Lapidari*. Montmorency Film.

Feld, Steven. 2012. *Sound and Sentiment: Birds, Weeping, Poetics, and Song in Kaluli Expression*. 3rd ed. with a new introduction by the author. Regno Unito: Duke University Press.

Il Dolomiti. 2024. "Il suono come elemento identitario del paesaggio: un nuovo progetto degli ecomusei è parte della nostra cultura e viene riconosciuto patrimonio dall'UNESCO." <https://www.ildolomiti.it/societa/2024/il-suono-come-elemento-identitario-del-paesaggio-un-nuovo-progetto-degli-ecomusei-e-parte-della-nostra-cultura-e-viene-riconosciuto-patrimonio-dallunesco>.

Leopardi, Giacomo, and Antonio Prete. 1992. *Operette morali*. Italia: Feltrinelli.

Rich, Richard, dir. 1994. *The Princess of Lake*. Crest Animation.

Chapter 1. Historical Overview

This chapter will be a historical overview of the main stages that led to the construction of speciesism, such as human exceptionalism above other species. The analysis will start from the humanism period XV-XVI centuries, in which the classic's rediscovery gave humankind new centrality. Another critical moment will be outlined in the Enlightenment period, and how the production of knowledge set in the print of first dictionaries and encyclopaedias further propagated the dualisms (mind/body; human/animal) in which human superiority is intrinsically intended. The overview will then continue with the analysis of Linneaus's nomenclature contribution to the definition of our species —Homo Sapiens-sapiens — as superior to other living beings and the consequences of this mindset in shaping modern society; this will be followed by the implications of Darwin's theories on the same issue. The discourse will conclude with modern society's more than human treatment, focusing mainly on meat consumption and capitalistic breeding in industrial factories. The whole chapter will be developed under an eco-feminist critique: environmental and women's oppression are, in fact, intrinsically connected as victims of the same oppression system, and for that reason, addressing them together is needed for a deeper and more effective analysis of the issue.

1.1 In Between

There was much confusion over whether or not a boundary existed between humans and animals until the seventeenth century. After the medieval period, Europeans elevated Plato's theory of essences above all other natural theories, and these have seeped into modern concepts of the human-nonhuman-animal relationship (Goodale 2015, 62)

The Middle Ages can be seen as a transitional period that connects the pagan world and folklore with the widespread spread of Christianity within the humanistic philosophy. This will be the starting point for discussing the divide between humans and non-human animals, the affirmation of what constitutes, using Ryder's words, speciesism, which is the foundation of the still highly anthropocentric world we live in, grounded on the assumption that humans are superior to other creatures. Dating back to those centuries (11th to the late 13th), the existence of multiple folk festivities where it was common to take animals' part, such as during the Feast of Fools — in which French priests dressed like animals—or May Day, celebrated in many contemporary European countries, with live animals included as participants, together with the numerous painting featuring humans with animal heads, seems to suggest a different human's relationship with other species (Salisbury 2010, 123).



Figure 1 French illustration of unknown subject in *Miroir Historial*, circa 1475, from Vincent de Beauvais' *Speculum Maius*, tempera, gold leaf and gold paint on parchment. 44cm x 30.6cm. The J Paul Getty Museum, Los Angeles.

In addition, the fact that souls transmigrated across species was quite widespread, such as in the Cathar movement, Albigensian of Southern France, and Bogomils in Bulgaria, implies the possibility of a different inter-species relationship. The belief in the conflict between a good, spiritual God and an evil, material God accompanied these movements. The material world, including human bodies, was then seen as a creation of the evil god, and the goal of the soul was to escape the physical realm and return to the spiritual realm of God. According to that vision, the soul's passage through different bodies was a journey of purification and reincarnation, and, depending on the morality of life, could involve animal forms too. Both these movements have later been declared as heretics and persecuted by the catholic church. (Moore 2012, 232).

Looking at the law system on this subject is significant because it reflects society's values. For example, in France during the Middle Ages, non-human animals could participate in legal processes, suggesting that they were believed to have agency and even single personhood (Rainis 2011, 24).

Further demonstration of the different human-non-human relationships could be found, as will be better developed in the fourth chapter, in the Bestiaries, a literature genre highly in vogue between XI and XIII centuries, in which non-human animals appear as symbolic creatures to which humans should look to acquire moral teachings (Bianchi, Marmo e Porro 2004, 45).

In the second half of the 15th century, the rise of Humanism redefined humanity's place in the world. The rediscovery of classical texts, such as those of Plato and Aristotle, reinvigorated the idea that humans were the pinnacle of creation. Combined with Christian doctrine, this view positioned humanity at the centre of the universe, asserting that only humans—made in God's image—had a special divine status.

The Christian wisdom, nourished together by patristic and Ciceronian and later by Platonism, does not represent, we can say, nothing more than an accommodation of the moral philosophy derived from other pagan thinkers rather than from Aristotle (of which ethics was not rejected) in the conduct of public life always sustained by faith and established religion. (Renucci, 1974, 1210-1267)

The rediscovery of Aristotle's *Scala Naturae*, which presents a taxonomic hierarchy of the world's creatures, has also contributed to the anthropocentric perspective. The scale has been incorporated into Christian imagery, placing God at the top, humans-animals in the middle, and animals, plants, and minerals below.



Figure 2 woodcut from a copy of Ramon Llull's treatise, *De ascensu et descensu intellectus*, Valencia, 1512

According to Aristotle, Man, by nature, is a Political Animal; the philosopher explained this assertion by noting that, among all animals, humans are uniquely endowed with the ability to speak (Clark 1999, 145). These passages underpin the modern relationship between humans and other animals, of which a fundamental stage is sure to be found in the philosophy of Pico of Mirandola (1463-1494). The latter believed that man was the architect of his destiny because God had given him the seeds of all things; having an indeterminate nature, he can choose to become anything as he self-determines. In one of his orations, *On the Dignity of Man* (1496), Pico of Mirandola affirms, “There is nothing more pleasant to be seen than man.” This vision, fundamental to humanistic thought, positions humans above other beings and leads to the idea that because of that reason, humankind can dispose of everything that lies behind them freely. The construction of the concept of humankind is based mainly on the negation of everything that man is not, resulting in the downgrading of women and animals. The then-in-vogue practice of the witch hunt represents the apotheosis of this thought. Both women and animals were framed as ‘other’ and subjected to violence and marginalization; everything that diverged from the standard idea of reason was seen as a threat to society and then publicly degraded. As Silvia Federici outlined, women who lived outside the patriarchal family, women who were old, poor, or who resisted the patriarchal order, were the prime targets of the witch hunts (Federici 2021, 24). The demonization of animals as ‘familiars’ was fuelled by the circulation of discussions of magic and witchcraft in print within the broader context provided by early modern confessional and secular imperatives and debates over the nature of animals and animal-human relations.

The appearance of the devil to a witch in the form of an animal has become a common feature of accusations of witchcraft, confessions, and trial records (Micklewright 1947, 286). Witch hunters were particularly concerned about the alleged sexual intercourse between witches and non-human animals, with consequences still present nowadays, as Agamben reminds us:

Homo sapiens, then, is a disorder that could be found in women's relationships with animals, a trigger that still haunts the relationship between animal abuse and domestic violence. This trigger would inspire male domination fantasies well into the modern era, as reflected in the continuing use of sexual objects like whips, chains, lamb-skin condoms, leopard-print panties, and sexual terms like pussy, foxy, and sex-kitten. (Agamben, 2002, 58)

The witch hunt was a form of cultural persecution targeting what was seen as a distinctly female approach to knowledge, particularly within the emotional sphere. Marginalizing emotions had profound implications and marked a significant turning point that influenced various aspects of thought and society (Federici 2018, 27).

One significant scholarly theory that supports the notion of human superiority was articulated by Francis Bacon (1561-1626). Because animals reminded people of their similarities rather than differences, Bacon's followers—Descartes in particular—viewed them as soulless machines: automata fundamentally different from humans. Centuries later (as we will see), the latter will function as a base for developing the intensive breeding practice, which finds its basis in negating the empathy relation towards humans and non-human animals, seen as objects and consequently not deserving compassion.

1.2 Ornamental Lexicon

One of the mechanisms intrinsic to the maintenance of political power is, as Meijer noted, the correlated production of truth:

Perceiving “knowledge” as a human capacity springs from unequal power relations, and knowledge produced in this system fits a discourse that reflects inequality and contributes to intensifying practices in which other animals are used. According to this, in conjunction with ethical questions, we also need to address this question of power, including how power relations have shaped and continue to shape our understanding of ourselves and others. (Meijer, 2019, 129).

As discussed above, the re-discovery of Aristotle's hierarchies has shaped our way of thinking about other beings, also because the dualism between humans and everything else that it suggests found its affirmation in the field of lexicon and philosophy: a new ‘ornamental lexicon’ is created to spread man's superiority above other beings. In Philosophy, the introduction of the concept of diarsis (the subdivision or logical decomposition of a concept into new concepts, suitable to define the extension of the first) has contributed to accentuating this focus on separation rather than on similarities, particularly in the emerging definition of Humankind. The concept of diarsis will be, in fact, criticized by feminists as reliable to women devaluation; Simone de Beauvoir, for example, in *The Second Sex* (1949), offers a critical analysis of the traditional binary that often defines women in

relation to men. She argues that women have been historically portrayed not as fully autonomous individuals but rather as the "other" existing primarily in contrast to their male counterparts. This perspective highlights how societal structures have shaped the understanding of womanhood, relegating women to a role that undermines their individuality and complexity, a process similar (as will be further explained later) to the one associated with non-human beings' macro categorization as 'animals' (Beauvoir, in Osmanović, 2020, 239-54).

Another goal of Bacon and his followers was to eliminate disorder and anything threatening the new paradigm. Like Plato, who lived 2,000 years earlier, Bacon believed that music, incantation, and unrestrained speech created emotional responses that undermined reason. According to Bacon, affection and passion are considered disturbances of the mind—essentially, ailments that hinder individuals from effectively mastering the political sphere. As the period coincides with the printing of newborn dictionaries and encyclopaedias, those ideas find ways to be attested in official knowledge and spread in places of learning (Gaukroger 2001, 79).

The Romans believed that owning the enemy's name was a way to possess the enemy itself; being able to decide the 'language', the lexicon, indeed means to possess control: it makes it possible to mould the reality and its perception. Foucault, reasoning on this nomination process and the result that this brought to culture and society said that natural history is nothing more than the nomination of the visible (Foucault 1994, 54) because naming a thing means attesting its presence in a cultural system and making it a potential referential, and indicative of the reality.

Greg Goodale shows us that the definitions of "man" and "reason" in dictionaries reflect the evolving concepts and semantic changes undergone by these two terms: in 1690's first modern dictionary, *Le Dictionnaire Universelle*, reason's effect was quasi-religious: «First power of the soul to discern between good and evil, truth and falsehood ». For Samuel Johnson, in his 1755 Dictionary of the English Language, reason similarly meant «The power by which man deduces one proposition from another». By the twentieth century, the link between reason, humans, and power was well established. Funk & Wagnall's popular Standard American Dictionary (1920) spelt out the reason: «The entire mental or rational nature of man. » Currently, the Oxford English Dictionary ascribes to the term: «The intellectual power, the capacity for rational thought, and related senses. »Reason has long been held to distinguish Man from all other animals and indeed to give Manpower. (Goodale, 2015, 81).

Because of their indisputability, dictionaries grant men to believe in their mastery. Following Bacon, the Port-Royal school (an abbey that was a centre of French intellectual culture) adopted the perspective that Truth could only be acquired through experiment and observation, founding the base for empiricism.

The Port-Royal school was instrumental in the emergence of France's first modern grammars, dictionaries, and encyclopaedias. The early rationalists' elevation of humanity significantly influenced societal attitudes toward the natural environment and nonhuman animals, which exploitation is again linked to women's conditions, as nature, represented as a woman, is argued to need to be controlled, enslaved, and tortured.

The passage from a relational approach to a mechanistic approach, as Adams reports, caused misogyny and animal cruelty to become more prevalent (Adams 1990, 28). Though men have been associated with logic and women with emotion since the ancient Greeks, the shift toward defining one as an exemplary trait of man and the other as a negative illness hardened in the period after Bacon formulated his methodology. Looking at the different meanings and descriptions of the word 'emotion' it is evident how the latter, step by step, acquired a negative connotation: «Addicted to indulgence in superficial emotion» (Oxford English Dictionary)

Where once sympathy and sentiment were valued, they became contemptible, or to use Bacon's terms, frivolous, vain and foolish. In 1748, the encyclopaedia Edward Buys explicitly tied passions to women: «Women's passions are indeed in general far stronger than those of Men; this is why their wrath, hatred, vengeance, unchastity, pride, and other impulses far exceed those of Men. » By 1756, Johnson characterised passion as a «violent commotion of the mind. » During the eighteenth century, men associated the word with emotions (love, anger, ardour) and, most importantly, with mental illness. This conflation of passion with mental illness continued in the nineteenth century and signalled a continuing drift in defining all emotions negatively. Thus, Noah Webster followed Johnson in labelling passion as «The feeling of the mind, or the sensible effect of impression; excitement perturbation or agitation of the mind, » and as a «Violent agitation or excitement of the mind » in his American Dictionary of the English Language (1828). Not surprisingly, by the twentieth century, Funk & Wagnall defined the term as an «Intense overpowering feeling» and as a «Strong impulse. » The contemporary Oxford English Dictionary informs us that passion is «Any strong, controlling, or overpowering emotion,» as well as «a fit, outburst, or state marked by or of strong excitement. » Where reason came to mean power, emotion came to mean the loss of power. (Goodale, 51)²

In summary, the steady development of the brain's sole authority over the rest of the body unfolds meticulously, originating from various sources of knowledge; this process gradually becomes recognized and documented in dictionaries, serving as the principal means of validating and affirming this hierarchy.

² . The above-reported quotations from dictionaries and encyclopedias presented in Greg Goodale: *The Invention of Man* (2015) are respectively from Solomon: *The Passion* (1976) and *In Defense of Sentimentality* (2004), and Harkin, Smith, *The Theory of Moral Sentiments* (1995).

1.3 Homo Sapiens-Sapiens

In the two centuries that followed Descartes, humanity exerted significant effort in creating order by studying and communicating differences and definitions. From Descartes in the seventeenth century to Claude Bernard in the nineteenth century, humankind, understood as separated and distinct from other species, gradually became a certainty (Goodale, 102). This means that its cultural identity, including all the social connotations that prefigure what is nowadays intended as humanity and the role that it occupies in society, was (according to a process that lasted till our modern times) set and consolidated.

Descartes's followers, particularly Nicolas Malebranche (1638-1715), took the mechanism to an extreme, denying sensation, experience, and consciousness to any living being. Malebranche's rationalism further exasperates Descartes's mechanistic ideas, arguing that:

Among animals, there is neither intelligence nor soul as we normally understand it. They eat without pleasure, they cry without pain, they increase without knowing it, they desire nothing, they fear nothing, they know nothing (Astrid Guillaume, 2023).

This philosophy, which originated in the seventeenth century and became dominant by the mid-eighteenth century, is well represented by Carl Linnaeus (1707-1778), who categorized plants and animals and participated in many expeditions worldwide. Botany in this period was big science and big business, an essential part of the projection of military might into the resource-rich East and West Indies.

The role of the curators of botanical gardens, specialized in cultivating plants such as Cinchona, has been crucial for European colonizing efforts in tropical climates. ([Schoedinger 2004, 121](#))

As Foucault (*The Order of Things* 1985) and Derrida (*The Animal that Therefore I Am* 2002) noted, this taxonomic classification was much more of a simple nomination; it was instead the transition from the multiple Renaissance's stories to the natural history of the Classic ages, tied to the imposition of a distinction, between what we see, and what others have seen, and what others could have imagined (Foucault 1985, 296).

As many feminist scholars further laid out, Linnaeus's classification of nature was far from being neutral and objective; he is instead said to have transmitted his time society's values and ideology into the object of his studies. Flowers reproduction, for example, is in his book, reported to happen between 'husbands' and 'wives' respectively, stamina and pistils, thus implicitly suggesting the Christian vision of procreation. Linnaeus gave primacy to plant sexuality in an era where the growing scientization of botany coincided with an ardent sexualization of plants (Müller 2007, 268). This distinction between the scripts, observation, and invention constitutes the first epistemological foundation of naturalistic travel at the end of the seventeenth and eighteenth centuries.

Natural philosophers organized the various entities in nature by creating logical systems, symmetries, tables, hierarchies, and rules. Linnaeus divided humanity into four categories: Europeans, Africanus, Asiaticus, and Americanus.

This idea of superiority, of scales, not only refers to mankind above other creatures but also to humankind itself. As the period coincides with Sweden's slavery trade to Africa, it is easy to understand why it was helpful at that time, downgrading the so-called 'Africanus' to the bottom of the list to justify their forced deportation and sequent enslavement. (Kenyon-Flatt 2021)

As will be further explained, Linnaeus's classification has had horrible consecution in the development of Scientific racism and the later development of eugenic science.



Figure 3 British Eugenics Society, 1930s

The prevailing notion during the seventeenth and eighteenth centuries was that human animals were superior to non-human animals because of their reasoning ability; thus, because of this lack, animals were believed not to experience pain and suffering during vivisection. On this subject, it is important to remember that vivisection has been crucial in constructing the human mindset; before those discoveries, in agreement with the still-in-vogue humoral theory, emotions were believed to be set in the whole body, particularly in the womb or other corporal fluids.

The vivisection of the brain and the nervous system magnified the brain's role and importance and belittled the other body's elements, opening the street for the enlightenment period. As Goodale said, vivisectionists who use living animals for their experiments certainly act cruelly; however, since their aim remains praiseworthy, they can justify their cruelty since animals "must" be regarded as man's instruments (Goodale, 96).

In his seminal 1817 work, *Le Règne Animal*, Georges Cuvier (1769-1832) articulated a foundational perspective on pursuing knowledge. He asserted that the essence of truth lies in the detailed analysis of living organisms, which should be achieved by identifying their smallest distinguishing characteristics through rigorous experimentation and systematic observation. Cuvier recognized that such a methodical approach is crucial for deepening our understanding of the complexities inherent in biological diversity and the intricate interrelationships among various species.

Supporting this approach and looking at Bacon's philosophy, Claude Bernard, who is considered the founder of experimental medicine, opened his *Introduction to the Study of Experimental Medicine* (1865) by stating:

We know from history the sterility of the scholastic path and that science did not begin to soar until men substituted for the authority of books the authority of facts ascertained in nature with the help of more and more perfect experimental methods; Bacon's most significant merit was that he proclaimed this truth aloud. (Bernard in Gaukroger, 2001, 65)

What is particularly noteworthy about the extensive discussion in this chapter is that Bernard is reportedly conscious of the suffering he is inflicting. He perceives the cries of the animals and observes the blood that flows, yet he chooses to remain unaffected, firmly convinced of the validity of his truths. In the period when vivisection was practised, many have advanced claims in its justification. Lewis Carroll, for example, begins his essay, *Some Popular Fallacies About Vivisection* (1875), attesting that Man is infinitely more important than the lower animals. Hence, the infliction of animal suffering, however great, is justifiable if it prevents human suffering, however small.

Carroll's words constitute an intrinsic hierarchization of the 'felt', in which the achievement and preservation of human well-being take priority over those of any other living form, with the consequent justification of all the ways employed to achieve the latter.

In the same way, as Bernard does, both see non-human animals as non-sentient and irrational and consequently not worthy of moral and ethical consideration. For these reasons, these latter have been strongly criticised by feminist scholars who, on the one hand, see these hierarchies as the mirror of other forms of domination (sexism, racism, and colonialism) and, on the other, advocate for a *Relational Ethic* that acknowledges the sentience and intrinsic value of animals, (Plumwood 1998, in Portman, 2019, 234). With these terms, feminist scholar refers to the necessity of constructing relationships that recognise the subjectivity of non-human animals, with the ethical implication of extending our responsibility beyond protecting them from harm, thus responding appropriately to their agency.

In the XIX century, Darwin's understanding of man's descent from apes threw the seeds for discussing human exceptionalism and paved the way for the birth of modern ethology science. However, the competitive approach with which he read nature, influenced by the development of industrial society at the time, somehow further justified human exploitation of other creatures, as it was seen as the natural consequence of the 'survival of the fittest'.

Furthermore, feminists like Donna Haraway (*Primate Visions and When Species Meet*, 1989) argue that Darwin's sexual selection theory framed women as passive consumers of male traits, reinforcing the idea that women's social roles were defined by their reproductive functions, thus oversimplifying female agency, sexuality and social roles both in humans and animals.

Additionally, Darwin's theories of evolution and natural selection were frequently intertwined with notions of race, suggesting European superiority, regarded as the pinnacle of social and biological evolution, reinforcing for that reason colonialist and racist attitudes.

1.4 Modern Outcomes

The extreme manifestation of Darwin's theories can be observed at the onset of the Second World War, particularly in eugenics, based on the belief that manipulating genetic transmission by selecting the 'best' individuals was worthwhile to eliminate and sterilise everything deemed weak or undesirable. As indicated by the prefix 'eu' (meaning 'good'), the goal was to attain a supposed form of perfection by transmitting only desirable genes selected according to the ideals and needs of the dominant elite. What is less known (as we will see in the third chapter's discussion about Massimo d'Anolfi's film *Bestiari Erbari e Lapidari* (2024), which documented this fact with some video from Munich's Archive) is that the prototype of the concentration camps was first tested on animals, in particular in fur farms.

Sadly, even nowadays, enlarged breeding systems are not that far from Nazis' instruments of extermination, and again find their justification in the achievement of humans' supposed well-being. Following the economic boom in the 1950s, meat consumption soon acquired the meaning of social redemption from the poverty that followed and the identification of a wealthy social status, briefly of virility and well-being. We might observe that the male role of hunter and distributor of meat has been transposed to the male role of the meat eater and conclude that this accounts for meat's role as the symbol of male dominance.

The equation is simple: the more important meat is in their life, the greater relative dominance the men command (...) When meat becomes an important element within a more closely organized economic system so that there exist rules for its distribution, then men already begin to swing the levers of power [...] Women's social standing is roughly equal to men's only when society itself is not formalized around roles for distributing meat. (Adams 2019, 59)

Affirms Adams, who began her masterpiece, *The Sexual Politics of Meat*, "In memory of 31.1 billion each year, 85.2 million each day, 3.5 million each hour, 59,170 each minute".

FAO's (2023) latest report counts that over 76 million tonnes of bovine meat, 123 million tonnes of pig, and 17 million tonnes of ovine have been bloody included in the market in 2023. In this number, Americans are reported as one of the most significant nations for consumption, with an annual estimated consumption of 73 kg per person.

According to Greenpeace's (2024) data, more than 700 million animals are bred in our country each year; two-thirds of the cereals sold in Europe are turned into fodder, and 70% of all cultivated land is dedicated to the alimentation of animals other than humans. The sector accounts for 11% of the annual CO2 emissions (World Animal Protection, 2023).

As is well known, those systems subject non-human animals to actual torture. In these places, they are kept in cages in conditions of overcrowding and deprivation and subjected to pharmacological treatments that overstretch their bodies, considerably reducing their life prospects. As if that were not enough, their vital functions, such as reproduction, are exasperated to allow maximum repetition and thus deprived of any emotional return. The above scenario is certainly not exhaustive in describing the totality of the suffering of those involved, but it is nevertheless sufficient to underline its cruelty. Feminist thought on animals and workers has examined the intersections between gender, labour, race, class, and species exploitation. Particularly highlighting the commodification and dehumanization to which these subjects are objects. For this purpose, an analytical framework regarding the repercussions of capitalistic production practices on workers could be established by associating the treatment of non-human animals with the Marxist perspective on the four forms of human workers' exploitation alienization: both humans, in fact, are alienated from the product of their work (meaning for animals the alienation from their descendent, from their corporal fluids: milk, sperm, and from their own bodies); there are, in addition, alienated from the production activity, as forced to specialize in one only competence, (milk production) and consequently to eliminate all the other; and finally alienated from the nature that surrounds them and from other species (Gaard in Adams, 1993, 206).

Furthermore, Gruen e Ronnie Zoe Hawkins assimilated non-human animal exploitation to Young's five faces of oppression, such as exploitation, marginalization impotence and cultural imperialism and violence, in which cultural imperialism meant how the dominant meanings of one society render the particular perspective of a group invisible and make this same group a stereotype to be branded as Other (Gruen and Hawkins, in Gaard 1993, 187). The concept of *othering*, to which we shall return later, is strictly functional for maintaining a subjugating hierarchy and for the emotional detachment the ruling class displays towards those in a subordinate position.

Warren defines this process as characteristically of the *logic of domination* and *hierarchical thinking*, understood as a perception of diversity organised by a spatial metaphor (up and down) that ascribes the most gracious value to that which is highest" (Warren, in Gard 1993, 201).

In this context, as we shall go into more detail later, the lexicon has played a fundamental role in separating the idea of animals and meat, living beings and food. That is why animal liberation cannot be separated from a lexical reform, which reattributes the other than human animals of their singularity and agency and consequently creates another way for humankind to perceive and approach them.

1.5 Conclusion

This first chapter provides the historical context of the Western human-animal divide, tracing key milestones in its consolidation from the Middle Ages (12th-13th centuries) to Humanism, the Enlightenment, the Scientific Revolution, the first colonial period, and contemporary society. The discourse has focused on how language—constituting a preferential channel for speciesism affirmation—has justified and reinforced the aforementioned dichotomies across various spheres of knowledge (e.g., Encyclopaedias, dictionaries, and philosophical constructions such as the concept of dieresis). Another salient point of this first chapter was to emphasise the intersectionality of different forms of oppression. For this reason, feminist eco-criticism has been juxtaposed with historical reconstruction to include women in the narration and discuss the implications of these power hierarchies on liminal subjects in power (more than human animals and women).

Chapter 1. References

- Adams, Carol J. 2010. *The Sexual Politics of Meat: A Feminist-Vegetarian Critical Theory*. New York: The Continuum International Publishing Group Inc.
- Agamben, Giorgio. 2002. *L'aperto: L'uomo e l'animale*. Torino: Bollati Boringhieri.
- Beauvoir, Simone de. 2011. *The Second Sex*. Translated by Constance Borde and Sheila Malovany-Chevallier. Reprint. New York: Vintage. (original 1949)
- Bentham, Jeremy. 1996. *An Introduction to the Principles of Morals and Legislation*. Oxford: Clarendon Press. (original 1780)
- Donovan, Josephine. 2013. "Diritti animali e teoria femminista." *DEP*, no. 23.
- Donovan, Josephine, and Carol J. Adams, eds. 2007. *The Feminist Care Tradition in Animal Ethics: A Reader*. New York: Columbia University Press.
- Foucault, Michel. 1985. *Le parole e le cose: Un'archeologia delle scienze umane*. Torino: Einaudi.
- Federici, Silvia. 2018. *Witches, Witch-Hunting, and Women*. Oakland, CA: PM Press.
- Food and Agriculture Organization (FAO). 2023. "Meat Market Review 2023." Food and Agriculture Organization of the United Nations. https://openknowledge.fao.org/3/cc3020en/cc3020en_meat.pdf.
- Gaard, Greta. 1993. *Ecofeminism: Women, Animals, Nature*. Philadelphia: Temple University Press.
- Gaard, Greta. 2012. "Bodies Matter: Feminist Animal Studies in the U.S." *DEP*, no. 20.
- Gaukroger, Stephen. 2001. *Francis Bacon and the Transformation of Early-Modern Philosophy*. Cambridge: Cambridge University Press.
- Goodale, Greg. 2015. *The Rhetorical Invention of Man: A History of Distinguishing Humans from Other Animals*. Lanham, MD: Lexington Books.
- Haraway, Donna J. 2013. *When Species Meet*. Minneapolis: University of Minnesota Press.
- Haraway, Donna. 1989. *Primate Visions: Gender, Race, and Nature in the World of Modern Science*.
- Harkin, James, e Adam Smith. 1995. *The Theory of Moral Sentiments*. London: Penguin Books.
- Kenyon-Flatt, Brittany. 2023. "How Scientific Taxonomy Constructed the Myth of Race." *Sapiens*. Accessed February 15, 2025. <https://www.sapiens.org/biology/race-scientific-taxonomy/>.
- Kheel, Marti. 2008. *Nature Ethics: An Ecofeminist Perspective*. Lanham: Rowman & Littlefield.
- Kymlicka, Will, and Sue Donaldson. 2016. "Locating Animals in Political Philosophy." *Philosophy Compass* 11 (11): 692–701. <https://doi.org/10.1111/phc3.12365>.
- Latour, Bruno. 1997. "A Well-Articulated Primatology: Reflections of a Fellow-Traveller." In *Primate Encounters*, edited by Shirley Strum and Linda Fedigan, 358–81. Chicago: University of Chicago Press.

- Meijer, Eva. 2019. *When Animals Speak: Toward an Interspecies Democracy*. New York: Columbia University Press.
- Moore, R. I. 2012. *The War on Heresy: Faith and Power in Medieval Europe*. London: Profile Books.
- Müller-Wille, Staffan. 2007. "Essay: Linnaeus at 300." *Nature* 446 (March 15).
- Oliver, Kelly. 2009. *Animal Lessons: How They Teach Us to Be Human*. New York: Columbia University Press.
- Plumwood, Val. 1998. "International Recognition and Rationality." *Environmental Values* 7 (4): 397–421. <http://www.environmentandsociety.org/node/575>.
- Plumwood, Val. 2003. *Feminism and the Mastery of Nature*. London: Taylor & Francis e-Library.
- Bianchi, Luca, Costantino Marmo, e Pasquale Porro. 2004. *Filosofia medievale*. Italia: Raffaello Cortina Editore.
- Renucci, Paul. 1974. "La cultura - L'Italia all'avanguardia (XV secolo)." In *Dalla caduta dell'Impero Romano al secolo XVIII*, a cura di Ruggiero Romano e Corrado Vivanti, vol. 2, tomo 2, 1210-1267. Torino: Einaudi.
- Salisbury, Joyce E. 1994. *The Beast Within: Animals in the Middle Ages*. 2nd edition, 2010.
- Solomon, Robert C. 1976. *The Passion*. New York: Anchor Press.
- Solomon, Robert C. 2004. *In Defense of Sentimentality*. Oxford: Oxford University Press.
- Subramaniam, Banu, and Madelaine Bartlett. n.d. "Re-Imagining Reproduction: The Queer Possibilities of Plants." *Society for Integrative and Comparative Biology*. <https://doi.org/10.1093/sicb/123456>.
- Twine, Richard. 2012. "Revealing the 'Animal-Industrial Complex': A Concept and Method for Critical Animal Studies." *Journal for Critical Animal Studies* 10 (1): 1–20.

Chapter 2. Feminist Movements Overview

After briefly describing the central moments constructing the human-animal divide, the discussion now turns to the parallel path of Animal Rights achievement and the progressive development of a new sensibility towards non-human beings. Historically, within the feminist movement related to animal rights, women have predominantly been activists due to their social circumstances as marginalized subjects rather than biological predispositions. This chapter, therefore, seeks to highlight how feminist critique has built a new awareness of both the exploitation and suffering inflicted on women and animals and has provided new paradigms for the respectful coexistence of all beings. For this purpose, in the following paragraphs, an attempt will be made to reconstruct —without claiming to be exhaustive— a chronology of the fundamental stages of its central developments: from suffragettes to Eco-Feminism, passing through CAS (critical animal studies), FAS (feminist animal studies), Black Feminism and Queer Eco Feminism.

The conclusion briefly outlines the Italian population's position on animal 'consumption' and 'employment' in the industries, followed by a reflection on the aims of Feminist Veganism.

In this context, the feminist approach is retained as the path to liberate all marginalised groups, including animals. One of the commonalities across the various interpretations of the movement is the need to cultivate an ethic of care rooted in reciprocity, also based on the practice of 'listening' to others, which is the practice suggested in this work in order to listen to non-human animals in a non-anthropocentric or, at least, less anthropocentric way.

2.1 Can They Suffer?

In the early 18th century, animals began to be included in philosophical discourse, not so much as individual entities, but as a yardstick against which to measure the morality of human behaviour.

In his book *An Introduction to the Principles of Morals and Legislation* (1780), the philosopher Jeremy Bentham posed a fundamental question to his audience regarding animals: can they suffer? Bentham has been one of the most prominent figures in utilitarian philosophy. According to this philosophy, as the name suggests, fairness is equated with what is useful: an action is considered good if it leads to the happiness of the majority, which is defined as the absence of pain.

What is new in Bentham's analysis is the inclusion of non-humans as subjects capable of feeling, which determines the worth of one morality.

On this subject of animal welfare, in 1789, he declared:

The day will come when the rest of animal beings can acquire those rights that have never been denied them except by the hand of tyranny. The French have already discovered that black skin is not a reason why a human being should be left without redress to the whims of a torturer. One day it may be recognized that the number of legs, the villosity of the skin, or the termination of the sacrum bone are equally insufficient reasons to abandon a being sensitive to the same fate. What else should draw the line? The faculty of reason or perhaps that of language? But an adult horse or dog is far more rational, and more communicative, than a day-old child, a week-old child, or even a month-old. But even if it were, otherwise, what would matter? The question is not Can they reason? nor can they speak? but can they suffer? (Bentham, 1780, in Pollo, 2020,15)

The philosopher was among the first to propose an ethical approach based on a criterion that includes all animals within a single moral community. Despite the firm limits of its utilitarianism, the author's thought has provided a strong conceptual basis for the animal rights movement because he identified, in the ability to feel pleasure and pain, not only the original motive of moral action but also something that all animals are intuitively (and not only) endowed with. In assuming emotions to be shared across species, Bentham marked the beginning of a slow path in animal rights discourse. Nevertheless, although Bentham was vehemently opposed to causing suffering to nonhuman animals, he never questioned our right to exploit and kill them for human purposes, if this was done without inflicting unnecessary suffering on them. (Pollo 2020, 17)

The XIX century was significant for the development of Animal protection, with the 1822 *Act to Prevent the Cruel and Improper Treatment of Cattle* in England. Meanwhile, in the U.S.A., the feminist movement started to develop with the publication of Mary Wollstonecraft's *A Vindication of the Rights of Woman* (1792), which linked the suffering of women, animals, and people oppressed by slavery, which lasted until 1865 in America. Margaret Fuller's *Woman in the Nineteenth Century*, 1845, further developed the issue; considered one of the most fundamental feminist American texts, it vindicates equality for women and men, argues the necessity for women to achieve economic independence, and links women's oppression to one.

In 1866, George T. Angell also created the Massachusetts Society for the Prevention of Cruelty to Animals (MSPCA), from which, less than twenty years later, Caroline Earle White founded the American Anti-Vivisectionist Society (1883). Feminists, in fact, were also strongly opposing vivisection practice as in *The Moral Aspects of Vivisection* (1875), by Williams & Margaret London and Anna Bonus Kingsford's, and *The Perfect Way in Diet*, (Kegan, Paul, Trench, London 1885), which for the first time exposes the similarity between lab animals' treatment and medical experimentation on women bodies:

Identification with the vivisected animal had its force on the fact that weak categories such as poor and women detained did indeed provide their bodies for experimentation and dissection, but it would be more

than a century before the intertwining of classism, racism, sexism, and speciesism that made advances in medicine and science in general possibly became evident and documented (Timeto 2024, 35)

Experimentation on bodies, whatever its purpose, has continuously poured over the most socially weak and marginalised individualities, exploiting their lack of space to be heard and their silence for their impunity.

Totally abstracted from these comparisons appears that time male's predominant arguments on animal treatment; a few years after Kingsford and London's publications, in 1892, the English social reformer Henry Stephens Salt published *Animals' Rights: Considered in Relation to Social Progress*. However, including animal treatment in the idea of progress is far from being symptomatic of different values or empathy towards them. On the contrary, this illustrates another aspect of human exceptionalism. This conception reinforces the human and animal divide, rejecting certain behaviours to elevate humanity above other creatures. This perspective maintains humanity's superior role in the hierarchy and diminishes everything that falls behind or does not conform to a specific model. This highlights how the institutional approach has always been attached to its power hierarchies and reluctant to accept the systematic nature of the structural conditions for exploitation, which instead, as we shall see, will increasingly be the focus of feminist politics

2.2 Women Empowerment

The first years of the XX century saw the development of theories structuring together what concerns animals and workers' oppression, as in *The Jungle* novel, by Upton Sinclair (1905), a critique of the early 20th-century industrial working class's condition, marked by a lack of social support, diffused poverty, and terrible working conditions. The book is important in the animal rights movement as in describing the meat industries, it compares workers' lives with non-human animals' lives. In addition, it puts the two subjects on the same level and creates empathy for them, as they are victims of the same oppressive system. During the same period, feminists continued to develop and strengthen their ideas on the subject by publishing Agnes Ryan's *Who Can Fear Too Many Stars? The Beast Prison, Birds, Bugs and Women* (1913), where, through the prison metaphor, Rayan explains how non-human animals are trapped in an exploitation system, just like patriarchal structures violate women.

It is important to premise how, especially in the beginning, women activists were mostly white and middle-class, partly because the economic security they enjoyed, compared to women from other social classes, allowed them to spend more time on the cause. Anti-racist activism, on the other hand, was invisible. Between the XX and XXI centuries, the suffragette struggle was firmly bound with the animal movement; however, for a complete design of liberation, we will have to wait for the development of the Black Feminism movements in America.

The 1970s constituted a turning point on the subject: Richard Ryder, a psychologist considered one of the pioneers in animal liberation, coined the term 'speciesism', a calque from racism and sexism that means the belief in the human species' superiority to other beings.

The term eco-feminism was coined in 1974, a few years later, by Françoise d'Eaubonne, although it was already present in Rachel Carson's 1962 work, *Silent Spring*. Eco-feminist criticism sought to shed light on the common oppression of nature and women, which are bent to patriarchal structures exploiting their reproductivity function and criticize the gendered acts of care practices that were long viewed as non-serious and naturalized as inevitable duties attached to women's reproductive work. Eco-feminism also centred its critique on how the dual approach of society (human/animal culture/nature, women/man) is directly functional to the maintenance of the already existing power mechanisms. Compared with previous feminist critiques, in addition, it has a more political foundation, which includes in its discourse Indigenous rights, and focuses on decolonial practices.

The emergence of these new concepts confirmed the presence of new approaches to the animal question—at least in the academic sphere—and also underscores the need for a suitable 'catchword' for their dissemination.

The term speciesism soon found success and affirmation in many of the most important works in the area, such as 1975 Peter Singer's *Animal Liberation* and Tom Regan's *The Case for Animal Rights* (1983), two seminal books in the Animal Rights Movement.

The main difference between the two approaches proposed in the texts could be resumed as that in the first, Singer does not assert that animals have rights, but that their interests should be considered morally; his position is mainly intended to avoid (as far as it is possible) 'unnecessary suffering', demonstrating in this his utilitarian perspective. Regan's, on the other hand, influenced by Kantian criticism, is based on a legislative resolute approach that equates humans and non-humans; he argues that animals should not be exploited under any circumstances because they have moral rights, not just interests to consider.

Feminist theorists have criticized both Singer and Regan for perpetuating controversial frameworks. In the view of feminists like Josephine Donovan and Carol J. Adams, it is noted that Singer's utilitarianism expresses hierarchical and instrumentalist logic akin to those informing scientific experiments that turn animals into objects (Donovan, 2006; Adams, 1990). From this perspective, utilitarianism is seen as defending a masculinist and disembodied form of ethical reasoning that marginalizes, in principle, relational and situated understandings of care and interdependence. Along these lines, feminist criticisms of Regan's rights-based framework emphasize his stress on abstract autonomy—again reflecting a human-centred individualism—that ignores interdependence among all beings (Donovan & Adams, 2007). Feminist theorists have emphasized the intrinsic value of non-human animal lives, each in its own right, and not by comparison with human lives, but instead as located within relational webs. Drawing on an ethic of care, this view foregrounds empathy, reciprocity, and shared vulnerabilities as it challenges the hierarchical and dualistic paradigms that have long devalued non-human animals (Gruen and Hawkins, in Gaard 1993, 167).

Such is the call for an intersectional framework that feminists advance, interconnecting the mistreatment of animals with much broader systems of oppression based on sexism, racism, and colonialism.

Feminist animal care theory does not begin with rights or principles, but with the moral claims of the individuals involved and the recognition of their situatedness in a context of interdependence and relationship. (Donovan & Adams 2007, 3)

Feminism insists on focusing on the capacity of other beings to feel emotions and to suffer; it is instead the right of a sentient creature to have the interest in not receiving suffering, considered equally when examined against the interest of another sentient creature (Donovan 2013, 12).

The seventies were also a decade of passionate popular movement: that time saw the publishing of Shulamith Firestone's *The Dialectic of Sex* (1970) and the brave Anne Koedt's *The Myth of the Vaginal Orgasm* (1970), in which the author begins to question biological dualism and especially the relegation of women to reproductive purposes that chain them to male dependence and subordination. This association between the female bodies of human and non-human animals capitalised in the reproductive function will later find its way into the later developments of vegetarian eco-feminism, understood as a form of resistance and subversion to the capitalist idealism underlying intensive livestock farming.

In this field, Carol Adams could be considered a pioneer, particularly with her essays *The Oedible Complex: Feminism and Vegetarianism* (1975) and the revolutionary *The Sexual Politics of Meat* (1990), in which attention is also given to the lexicon and how it constitutes a weapon in the hands of power aimed at maintaining and spreading the patriarchal ideology, as she remarked: "We have no language that is free of the power dualisms of domination" (Adams 1990, 93). In this respect, it is necessary to recall her concept of missing referent, the use of metaphors, having as objects women and animals, which lose the reference to the act they specify in their transposition and customary normalisation. In Adams's words: "The absent referent permits us to forget about the animal as an independent entity; it also enables us to resist efforts to make animals present" (Adams 1990, 79). There are three forms in which animals come to become the absent referents: literally: through meat-eating animals are absent because they are dead, so we do not think about them as alive; the second way is definitional, such as the fact we change our way to talk about them when we are about to eat them; and the third is metaphorical, animals are turned to a metaphor for the description of people experiences (Dog Day) (Adams, 83).

Feminist scholars have long identified language as a tool of both sexism and speciesism, perpetuating systems of subjugation and domination. They insist that the liberation of all oppressed creatures must begin with language, challenging and transforming male-dominated discourses by including neologisms that describe realities beyond those prescribed by patriarchal structures. For feminists, the reform of language is not a matter of symbols; it is a necessary step toward dismantling hierarchical systems of oppression that devalue women, animals, and nature.

Moreover, it is the socially constructed roles and responsibilities ascribed to women in terms of caregiving that have been very instrumental in challenging such harmful practices against animals. Feminist scholars have pointed out that shared experiences of vulnerability and marginalization increase compassion and identification with the suffering of other entities. It is under this light that in the course of the 1970s, feminist criticism underwent further expansion, both with the development of the above-mentioned eco-feminism and, of the Black Feminism movement, which, arguing for total liberation, shed light on the racialized connotation of oppression. In 1973, Black feminists, primarily located in New York, felt the necessity of forming a separate Black feminist group. This became the National Black Feminist Organization (NBFO), among the participants was Barbara Smith, who, two years later, with the aim of shaping analyses and practices for the deconstruction of interconnected systems of oppression, formed The Combahee River Collective. Their statement reads:

The most general statement of our politics at the present time would be that we are actively committed to struggling against racial, sexual, heterosexual, and class oppression, and see as our particular task the development of integrated analysis and practice based upon the fact that the major systems of oppression are interlocking. The synthesis of these oppressions creates the conditions of our lives. As Black women we see Black feminism as the logical political movement to combat the manifold and simultaneous oppressions that all women of colour face. (Combahee River statement, 1)

Black, anti-speciesism and decolonial feminism show how oppressions that refer to each other require a careful comparison of similarities but also the recognition of specificities of each relationship of domination. Anyone who cares about ending racism must be aware that its roots lie in speciesism and the social construction of whiteness. Processes of rationalisation and violence against animals have always been interconnected (Timeto 2024, 77)

Black Feminism also deeply criticised the blindness of the white feminist movement in America to Black women's apartheid and discrimination, which necessitated instead a proper voice within the movement. The term intersectionality was in fact created by black feminist scholar Kimberly Williams Crenshaw, who first used it in 1988 in a legal context to indicate the intersection of sexist and racist oppression. It refers to the necessity of looking at the relations connecting the different forms of oppression, which should be addressed in order to be dismantled functionally and finally shed light on the connections between colonialism, patriarchy, racism, sexism, and speciesism.

At the beginning of the '80s, Joyce Tischler created Animal Defence Found in the U.S.A. One year later, in 1980, PETA, *People for the Ethical Treatment of Animals*, was founded by Ingrid Newkirk and Alex Pacheco in Virginia to fight against intensive breeding, vivisection, animal experimentation, fur breeding and animal use in the amusement context. Without denying these associations the merit of having achieved important results in the protection of animal health, the vision they put forward is limited to combating only this type of violence, remaining misplaced on its already discussed offshoots. Overseas in Europe, things are proceeding even slowly: we will have to wait until 1997 when the Amsterdam treaty finally recognised animals as sentient beings.

The emergence of critical animal studies in the 20th century finally marked a breaking point. Politically anti-specist, intersectional, and always praxis-oriented with an interdisciplinary and polemically anti-academic slant, they intertwined with post-colonial queer and disability studies.

What differentiates their approach from the previous movements is their want to be on the side of animals instead of doing for animals.

Further evolution of CAS is to be found in FAS (Feminist Animal Studies), which brought to the discussion a feminist and queer approach aimed at the inclusion of all marginalized peoples as a direct participant in societal life from which they have too long been excluded. As Gaard argues:

Feminism Animal Studies, twentieth-century vegan feminists and animal ecofeminists sought to end animal suffering in its many manifestations (in scientific research, and specifically in the feminised beauty and cleaning products industries; in dairy, egg, and animal food production [“factory farming”]; in “pet” keeping and breeding, zoos, rodeos, hunting, fur and clothing) by developing a feminist theoretical perspective on the intersections of species, gender, race, class, sexuality, and nature. (Gaard, 2012, 183).

Feminism fights for the liberation of every living being and the freedom to self-determine. Another of its goals is to socio-recognise the value of the practice of care, which is described as necessary for reshaping our social fabric, in which empathy requires a proper role.

Thinking with care and having care must not remain separate planes, in order to avert the risk of the appropriation of the experience of the experience of the appropriation of the other, and to allow the other to instead be a significant alterity, from which we can ask questions and be recognised as capable of responding. (Timeto,126)

Whereas classical ecofeminism highlighted the link between women's oppression and the exploitation of nature, often relying on a connection between the feminine and the environment (maternal, cyclical, nurturing), queer ecofeminism challenges precisely these essentialist associations, rejecting any reading that naturalises gender and sexuality.

Figures such as Greta Gaard and Catriona Mortimer-Sandilands have explored how imposed social norms on gender and sexuality are part of the same system that exploits nature.

Species, on the other hand, is never only biological; it is also always ideological, one of the most ideologically ambiguous and instrumental ways in which human-animal dualism is reinforced with regard to the affirmation of the heterosexual norm.

Catriona Mortimer-Sandilands and Bruce Erickson in *Queer Ecologies* (2010) analyse how sexuality and ecology are interconnected, showing how narratives about purity, normality and the ‘natural order’ have been used to exclude queer subjectivities and justify environmental exploitation.

Joan Roughgarden (2004) in *Evolution's Rainbow* shows how the natural world is much more diverse than heterosexual and binary models would have us believe: there are over 1,500 animal species with homosexual behaviour, fluid sexualities and non-reproductive kinship patterns.

The condemnation of non-procreative (and therefore deemed unnatural) sexuality served to enshrine the heterosexual norm in religion, colonialism, and medical science, targeting both those present and those realised. In addition to women confined to their role as brood mothers, the use of dual-speciesism, homosexuality, contraception, immigration, and families that are not monogamous or exclusively based on sexual exchange posed a threat to the health of the population, the nation and property. An anti-speciesist and queer feminist perspective not only rejects the absolute identity or the absolute Otherness of human and animal, often straight anti-speciesism but also takes into account the different ways in which the appeal to animal bodies as bodies of nature worked, whether it was to condemn queer sexuality as being against nature or to make it permissible by proving its existence in nature (Timeto, 175)

Feminist perspectives in animal studies have emphasized gendered ethics of care, linking women's experiences and their care for animals through embodied and relational practices. However, as Erika Cudworth, Ruth E. McKie, and Di Turgoose (2023) have pointed out, much of this scholarship has focused almost exclusively on the human practices of caring for animals, often ignoring the reciprocal and mutual dimensions of these relationships. This care ethic calls for re-imagining human-animal relations as interconnected and based on mutual respect rather than hierarchical control. This is also the position that this thesis suggests; the aim of the following chapters, in fact, is to look at non-humans and animals in order to dismantle the oppressive structures that perpetuate this dualism (culture/nature). This will be done in this context by looking at linguistic perception and trying to give an alternative to its only referent as human ability. As Timeto points out:

Recognising that animals are capable of semiosis and communication, even if not linguistic, frees them from classical mechanistic representation and places them in a non-dichotomous relationship with humans (Timeto, 118)

We must address feminist studies in 'animal liberation' as these approaches are needed to challenge anthropocentrism and uncritical humanism and provide more depth and richness to critical animal scholarship (Salomon 1989, 114) because, as Eva Meijer reminds us:

How humans treat other animals is inextricably linked to how they view and think about them. These aspects of human relations with other animals are also political: when a human directly hurts another animal, institutional violence is hidden, not because humans do not see it, but because they do not perceive it as violence (Meijer 2019, 126).

2.3 Recent Updates

In today's world, where the number of domesticated animals has reached unprecedented levels—latest studies estimate around 65 million in Italy in 2023 (Assalco 2023)—the role of certain animals, mainly dogs and cats, has become increasingly central in human-animal relationships. This fact, however, is not free from dark sides, as it often leads to the humanisation of companions instead of understanding their nature and right to exist. Moreover, the selective care for certain animals and the trend of 'animal cuteness' indeed constitutes a way to get closer to nature, but, on the other hand, it

is nothing more than an extended form of speciesism, which privileges certain species solely based on their appearance, reinforcing distance from all others. This superficial approach is rooted in the external appearance of other beings, mirroring the objectification process inherent in patriarchal attitudes towards women, who are continuously portrayed as ‘objects,’ whose beauty is considered their only value, serving the satisfaction of the patriarchal male class.

On the other hand, thanks to activist campaigns, the most famous among them being ALF (Animal Liberation Front) and Extinction Rebellion, important steps have been taken both in spreading the violence inflicted on animals in our society and in making people understand the weight that our way of life has on our planet and in the existence of the species that inhabit it.

Our century has also witnessed significant, albeit insufficient, amendments to international law regarding humanely treating non-human animals. Notably, in 2009, the European Union banned both cosmetic ingredients testing and the sale or import of seal products. Ten years later, in 2019, California became the first U.S. state to ban the sale and manufacture of new fur items, and cat declawing was prohibited in New York State. In 2020, the European Parliament introduced new animal welfare measures, regulating slaughter, transport, and scientific research. However, it is important to emphasise that these measures only focus on harm reduction, which does not challenge the systems that cause it but only seeks to make its perpetuation ‘bearable’.

By contrast, a positive development is the steady increase in vegetarianism over the past decade. As regards the Italian population, recent data suggest an increase in vegetarian and vegan trends that can be understood as a positive awareness in taking responsibility towards other species.

According to the latest reports (Statista 2025), 7,2% of the Italian population declares themselves vegetarian and 2,3% vegan; it is interesting to note that the number has doubled in the last ten years. Regarding animal ethics, the majority of the population is against vivisection (76,6%), hunting (72,9%), fur production (78,3%), and animals’ involvement in circuses (78,1%).

The queer feminist view in this sphere sees veganism as a choice of ‘resistance’ to combat both the specism ideology and the deadly production of slaughterhouses and intensive livestock farms. In the *Manifesto Queer Vegan* (2014), Rasmus Simonsen examines veganism as a challenge to family structures and the heterosexual norm, which vegans question and from which they diverge. That of the ‘sustainable’ meat is a myth and highlights the hypocrisy of welfareism sharing many more places and practices than is generally believed, as well as entailing the same fate for animals.

Our current time is also called the sixth mass extinction. According to recent reports (Cowie, Bouchet, and Fontaine 2023), in fact, in the last five centuries, 7,5% and 13% of species over the 2 million known disappeared from our planet at an unprecedented rate. Of course, the food sector is insufficient to stop the ongoing sixth mass extinction process.

However, it could be fundamental in limiting it, and most importantly, being vegan is the only way to boycott the horrifying industrial breeding system. A true transformation requires a multispecies perspective that redefines the human role within the ecosystem. I hope this work contributes to this urgent conversation—we have already lost too much, and we cannot afford to let this continue.

2.4 Conclusions

In this chapter, an attempt has been made to summarise the fundamental stages and developments of feminist movements in their disparate connotations. Feminist struggles give us a powerful lens for reading the reality of our society and teach us that we must pay attention to the disturbing global processes of destruction—environmental degradation and social instability included—and struggle against neoliberalism as the generally reigning ideology, often standing for a very uneven process: people or profit. We must ask for greater equality of wealth distribution, where such resources will not be further monopolized by only some but open up to all. This also involves rebuilding relationships torn by perennial conflicts and addressing debilitating societal hierarchies.

Finally, and perhaps most crucially, we must recognize the inherent limitations of our species and the existential risks we face should we fail in this endeavour. Compassion cannot solve these problems, but it is necessary as a compass to comprehend them fully. Bacon's disciples ensured that humans needed to be rational and dispassionate in considering issues. However, rhetorical and feminist scholars are rediscovering that good citizenship relies on emotions, empathy, and care. Relying solely on logic can lead to a kind of blindness and a coldness in our interactions. After all, humans are not machines.

Logos, ethos, and pathos are all appropriate to argument, a position that rhetorical scholars have advanced since Aristotle.

Because compassion is grounded in the awareness that all living things suffer, it bypasses—although it need not displace—all judgments, including those of justice. For it is by suspending judgments of justice or honour or revenge or position in deference to the acknowledgement of suffering that compassion achieves one of its great benefits: breaking the cycle of violence (Goodale, 97).

The following chapters will explore how we can attune ourselves to the voices and perspectives of non-human animals. Drawing from Haraway and Timeto, this work will examine how 'becoming with' other species can lead us toward a more ethical and interconnected humanity.

Chapter 2. References:

- Adams, Carol J. 2010. *The Sexual Politics of Meat: A Feminist-Vegetarian Critical Theory*. New York: The Continuum International Publishing Group Inc.
- Adams, Carol J. 1975. "The Oedible Complex: Feminism and Vegetarianism." *Feminist Studies* 2, no. 1: 63-81.
- Beauvoir, Simone de. 2011. *The Second Sex*. Translated by Constance Borde and Sheila Malovany-Chevallier. Reprint. New York: Vintage.
- Bentham, Jeremy. 1996 [1780]. *An Introduction to the Principles of Morals and Legislation*. Reprint, Oxford: Clarendon Press.
- Cobbe, Frances Power. 1875. *The Moral Aspects of Vivisection*. London and Edinburgh: Williams and Norgate. Online version, University of Glasgow Library.
- Cowie, Robert, Philippe Bouchet, and Benoit Fontaine. 2022. "The Sixth Mass Extinction: Fact, Fiction or Speculation?" *Biological Reviews of the Cambridge Philosophical Society* 97. <https://doi.org/10.1111/brv.12816>.
- Cudworth, Erika, Ruth E. McKie, and Di Turgoose. 2023. *Feminist Animal Studies: Theories, Practices, Politics*. London: Routledge.
- Donovan, Josephine. 2013. "Diritti animali e teoria femminista." *DEP*, no. 23.
- Donovan, Josephine, and Carol J. Adams, eds. 2007. *The Feminist Care Tradition in Animal Ethics: A Reader*.
- Ferrando, Francesca. 2013. *Philosophical Posthumanism*. London: Routledge.
- Firestone, Shulamith. 2003. *The Dialectic of Sex: The Case for Feminist Revolution*. Reprint. New York: Farrar, Straus and Giroux.
- Fuller, Margaret. 2008. *Woman in the Nineteenth Century*. Reprint. New York: Dodo Press.
- Gaard, Greta. 1993. *Ecofeminism: Women, Animals, Nature*. Philadelphia: Temple University Press.
- Gaard, Greta. 2012. "Bodies Matter: Feminist Animal Studies in the U.S." *DEP*, no. 20.
- Gaukroger, Stephen. 2001. *Francis Bacon and the Transformation of Early-Modern Philosophy*. Cambridge: Cambridge University Press.
- Goodale, Greg. 2015. *The Rhetorical Invention of Man: A History of Distinguishing Humans from Other Animals*. Lanham: Lexington Books.

- Gruen, Lori. 2015. *Entangled Empathy: An Alternative Ethic for Our Relationships with Animals*. United States: Lantern Books.
- Koedt, Anne. 1970. "The Myth of the Vaginal Orgasm." In *Notes from the Second Year: Women's Liberation*. New York: Radical Feminism.
- Kingsford, Anna Bonus. 1885. *The Perfect Way in Diet*. London: Kegan Paul, Trench.
- Meijer, Eva. 2019. *When Animals Speak: Toward an Interspecies Democracy*. New York: Columbia University Press.
- Osmanović, Lejla. 2020. "The Second Sex or Existentialist Philosophy from the Perspective of Simone De Beauvoir." *DHS* 1 (3): 65–80. <https://www.dhs.ff.untz.ba/index.php/home/article/view/415/319>.
- Pollo, Simone. 2020. *Manifesto per un Animalismo Democratico*, Carrocci editore: Roma
- Regan, Tom. 2004. *The Case for Animal Rights*. Reprint. Berkeley: University of California Press.
- Rainis, Giulia. 2011. "Proceder Comme Justice Et Raison Le Desiroit Et Requirroit: I Processi Contro Gli Animali Nella Francia Del Tardo Medioevo: Il Caso Del Maiale Tra XIV E XVI Secolo." *I Quaderni Del Ramo D'Oro Online* 4. Accessed February 16, 2025. <https://www.quadernidelramodoro.it>.
- Ryan, Agnes. 1913. *Who Can Fear Too Many Stars? The Beast Prison, Birds, Bugs and Women*.
- Salomon, Nancy. 2000. *Feminist Critiques of Animal Liberation*. Reprint. New York: Feminist Press.
- Samhita, Laasya, and Hans J. Gross. 2013. "The 'Clever Hans Phenomenon' Revisited." *Communicative & Integrative Biology* 6, no. 6: e27122. <https://doi.org/10.4161/cib.27122>.
- Sinclair, Upton. 2003. *The Jungle*. Reprint. New York: Dover Publications.
- Singer, Peter. 2002. *Animal Liberation*. Reprint. New York: New York Review of Books.
- Statista. 2025. "Veganism and Vegetarianism in Italy." Accessed January 14, 2025. https://www.statista.com/topics/9937/veganism-and-vegetarianism-in-italy/?utm_source=chatgpt.com.
- Stowe, Harriet Beecher. 1976. *Rights of Dumb Animals*. Reprint. New York: Arno Press.
- Subramaniam, Banu, and Madelaine Bartlett. "Re-Imagining Reproduction: The Queer Possibilities of Plants." *Society for Integrative and Comparative Biology*. <https://doi.org/10.1093/sicb/123456>.
- Timeto, Federica. 2020. "Becoming-with in a Compost Society: Haraway Beyond Posthumanism." *International Journal of Sociology and Social Policy*. <https://doi.org/10.1108/IJSSP-08-2019-0158>.

Timeto, Federica. 2024. *Animali si diventa*. Napoli: Tamu.

Vecchi, L. 2023. "Una popolazione in aumento. Gli animali d'affezione in Italia." *Neodemos*, October 20, 2023. <https://www.neodemos.info/2023/10/20/una-popolazione-in-aumento-gli-animali-daffezione-in-italia/>.

Wollstonecraft, Mary. 2004. *A Vindication of the Rights of Woman*. Reprint. London: W. M. Books.

Wei, Ian P. 2017. *The Animal and the Human in Medieval Philosophy*. Cambridge: Cambridge University Press.

World Trade Organization. 2008. "European Communities — Measures Prohibiting the Importation and Marketing of Seal Products."

World Trade Organization. 2014. "European Communities — Measures Prohibiting the Importation and Marketing of Seal Products." Accessed February 16, 2025. https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds400_e.htm.

Chapter 3. Widening the Linguistic Assumption

This chapter will be centred on understanding the limitations of perceiving language as only verbal. Dumping our language perception is, in fact, necessary to consider other forms of communication in which other-than-human beings are included. The first section will reflect on the 'silencing' practice within our society; in this part, the discourse will be joined with Derrida's (*The Animal That I Am* 2002) analysis and the related eco-feminist approach. The second section of the chapter will instead focus on the post-humanist perspective, which proposes a de-centralization of the Human, also in the linguistic field, and looks at the fluidification of gender identities. The final section will provide a different approach to language and intelligence in the post-humanistic concept of decentralising the human. In particular, the role of eco-semiotics, body language, and swarm intelligence will be discussed in the deconstruction of humans' linguistic absolutism.

3.1 Uncomplete

The modern study of language, which began in the first decades of the 20th century with Noam Chomsky and Saussure's theories, does not contemplate in its inquiry into the very origin of language anything other than the human and, in particular, the human mind as constructors and interpreters of meaning (Saussure, 1983 & Chomsky, 1957). Looking at the evolution of the 'language forms' in the social network could give a concrete example of the reduction of perceiving language as only made by words, both in the written and sound form. In the first social networks indeed to the simple written message, we soon added the 'emojicons' functional to the expressiveness of the emotional feeling concealed in words; then came to the functionality of recorded messages to return the language its tonal components eclipsed in writing. However, something was still missing, and here comes the final evolution: instant video messages or video notes, the latter of which integrates into the communication text facial mimicry other than the vocal tone. The evolution of language in social media suggests that there is much more than words implied in communication and that the latter, even between humans, is instead made of several components that we share and have always been sharing with many other species. In his book *How to Speak Whales* (2022), Mustill argued that language was often defined in opposition to what apes lack. This chapter, thus, will focus on the similarities we share in communication systems with other beings and explore what these shared forms can teach us about ourselves.

3.2 Silencing and Making Heard

As the ancient Greek myth of Procne tells us, the ability to speak, to let the proper voice be heard, means also to have the possibility to contest power; it is for this reason that the practice of ‘silencing’ is common to many oppression forms. We see this happening in many governments and dictatorships around the world, especially in their effort to restrict freedom of speech and in the censure exercised in the various media. As Libatique points out, speech, as an index of power, also conspicuously marks those who, by societal convention, should not be speaking because they do not have social power (Libatique 2018, 11). On the other hand, this opposition also indicates the aggregative and subversive potential that relies on the possibility of publicly contesting the power and exploitative forms. Considering non-human animals as unable to speak allows humans to avoid confronting the implications of their treatment toward them, that is —using Haraway terms— a functional way to make them ‘killable’. Because of that, not only can we not deem certain species killable in advance, but we, first of all, share a responsibility not to let them force them to die, as well as to not force them to live (Timeto 2020, 11). This process of objectification, functional to create the emotional detachment necessary for ingesting other beings while remaining within a shared ethic, finds its success in the language, in the ‘absent referent’ mechanism, which makes animals absent from a discussion on meat because the acts of slaughtering and butchering have already rendered the animal absent through death and dismemberment (Adams, 111). Considering a being as incapable of speaking often is linked to a low estimate of its cognitive capacity and aimed to confirm our supposed superiority regarding other living forms. At the beginning of the twentieth century, Jacques Derrida was one of the first to theorise on the question in his famous work *The Animal That Therefore I Am* (2002):

The animal, what a word! The animal is a word; it is an appellation that men have instituted, a name they have given themselves the right and the authority to give to the living other. (Derrida 2008, 23)

His title directly evokes Cartesian philosophy — *I think, therefore I am* — and critiques the dualism central to Descartes' thought. It introduces the importance of doubt and intellectual flexibility, concepts that challenge rigid dichotomies. This flexibility enables the author to deconstruct previously unquestioned doctrines, offering a more nuanced perspective: Derrida poses a simple question to himself (and consequently to his public):

The animal that I am (following), does it speak? That is an intact question, virginal, new, still to come, a completely naked question. (Derrida, 32)

Recognizing the system of oppression of which animals are part, Derrida proposed starting from the language to reconfigure our behaviours towards them. In doing this, he coined the word ‘animot’, whereas *mot* in French means the word.

Derrida's neologism retains the radical *-ani-* (meaning soul) while altering the ending to *word*. This lexicological shift rejects the plural *Animoux* (with the *-oux* suffix). For the philosopher, in fact, it was both impossible and absurd to encapsulate such a diverse range of beings within a single term:

This agreement concerning philosophical sense and common sense that allows one to speak blithely of the Animal in the general singular is perhaps one of the greatest and most symptomatic asinities of those who call themselves humans (Derrida, 41).

In opting for the singular, the philosopher also refers to another important theme in animal liberation: individuality. Derrida understood that the distinction between humans and animals was not suitable for distinguishing two subjects as much as raising the first concerning the second, thus creating a 'unicum' that is not coupled with any other entity. He argues:

Ecce animot. Neither a species nor a gender nor an individual, it is an irreducible living multiplicity of mortals, and rather than a double clone or a portmanteau word, a sort of monstrous hybrid, a chimaera waiting to be put to death by its Bellerophon (Derrida, 41).

From an ecofeminist perspective, this reduction of 'irreducible living multiplicity of mortals' in the category of Animals makes it reenter in the Simone de Beauvoir 'othering' concept, in which once again, women, minorities, and non-human animals are clustered. This concept is central to feminist theory and intersects with postcolonial, critical race theory and critical framework. Dominant groups, in fact, define themselves as the normative "self", while targeting marginalized groups as the "other", which are reduced to objects and stereotyped; to this aim, language has been a powerful tool to reinforce the hierarchies suggested by the dominant elite (Beauvoir 1949, 82).

In this context, the reasons behind this willingness not to understand and not to listen are that, in this way, the power relations between humans and non-humans can continue to exist as they are and remain valid. Like whenever it happens in our society against women, racialized people and minorities, the act of silencing is not neutral; it is a tool of oppression. Derrida's reflection on the silencing practice will resonate later in Spivak's reflections on *Can the Subaltern Speak?* (1988). In agreement with the latter, Subalterns —the most oppressed and marginalized individuals in society— cannot speak, not because they lack the ability to do so, but because no infrastructure allows their voices to be heard. This absence, as reported below, is not accidental but part of a deliberate programme of suppression of the violence that concerns it from the public imagination so that it can continue undisturbed:

No one The Animal That Therefore I am, can deny seriously any more, or for very long, that men do all they can in order to dissimulate this cruelty or to hide it from themselves; in order to organize on a global scale the forgetting or misunderstanding of this violence, which some would compare to the worst cases of genocide (there are also animal genocides: the number of species endangered because of man takes one's breath away) (Derrida, 26).

Derrida understood that this othering labelling was directly connected to labelling everything different from man, as non-deserving attention and interest, and to make other beings fall into a category of which the negative connotation was already attested. Seeing all other animals as one group in contrast to humans reinforces anthropocentrism, legitimising practices in which other animals are used for human benefit. Derrida argues that, instead of one line between Humans on the one side and Animals on the other, there are multiple and heterogeneous borders; beyond the edge of the “so-called human” (ibid.), we find a heterogeneous multiplicity of the living (Derrida, 31). Thus the creation of the word ‘animals’ is aimed at suppressing this empathy while maintaining the human ideal intact, suppressing the potential guilt that can emerge while reasoning about their treatment in our society. This vision also includes the division between humans and beasts, as only humans can be accused of bestiality, while animals cannot avoid being such; in this optic, they have no escape from such a brutal connotation; their only function is to be an extreme to which refer.

We shall perhaps speak of bestiality and of bestiality later, as that from which beasts are in any case exempt by definition. One cannot speak—moreover, it has never been done—of the bestiality of an animal. It would be an anthropomorphic projection of something that remains the preserve of man as the single assurance, finally, and the single risk of what is “proper to man. (Derrida, 41)

This power relation is constantly renowned in the context of all the idioms that refer to animals as intrinsically evil. To this point, it is important to note, as Adams explained, that when associated with animals, metaphors referring to women usually have a negative association, often linked with sexual connotations. On the other hand, those referring to men with the same epithets are associated with virility and force. That is because women and animals in a patriarchal society are both seen, because of their presumed irrationality, as something that deserves to be tame, to subjugate to man's pleasure and necessity.

Animalization is viewed as “dehumanising” because being human means not being an animal. It is bad to be an animal, and good to be a human. As such, dehumanization derives its power from the human-animal hierarchy that is already in place (Suen 2015, 103).

Considering a category as unable to speak or to communicate negates even their possibility of suffering as believed incapable of feeling and expressing their emotions. To do this, the conception of ‘language’ must exclude in its meaning all that suggests a common point between our language and more than human language. This assumption, however, is intrinsically dangerous, citing Bentham, as even infants in their first month cannot speak, so does that mean they cannot suffer? And what about people with language disabilities? Is it worth retaining the mas unable to suffer, too?

We must reconsider the nature of language to challenge the linguistic mechanisms perpetuating exclusion. Therefore, in the following section, post-human studies—which have a particular vision of language—will serve as the lens through which we examine the aspects that have been obscured to uphold human-centric ideologies.

Concepts such as eco-semantics, swarm intelligence, and embodied experience expand our understanding of intelligence and language, offering new perspectives that transcend traditional boundaries. In the anthropocentric time we live in this linguistic shift, it is fundamental to —using Derrida's words— ‘deconstruct’ our imponent of egocentrism.

In addition, the technological revolution of our century could be seen as a fruitful opportunity to remodel the idea of what it means to be human. The unstoppable development of increasingly capable automata and the ever-wider human/robotic substitution ask us important questions and require us to look back at philosophy and the Humanities to outline these other forms and incorporate them into the assistance appropriately. This creation of robotic doubles, this ‘robotic Pinocchio’, of these cyborgs —to say in Haraway’s words— puts us before the choice of what to insert in him so that he responds to our needs. In this operation lies the breakdown of all the mechanisms that make us human, which, in the operation of reinsertion, offers us an unprecedented intrinsic perspective on their structural functioning. According to Haraway’s *Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century* (1985), in fact, cyborgs transcend traditional dichotomies such as human/animal, organism/machine, physical/ non-physical, natural/ artificial. Because they symbolize hybridity, they offer a vision of fluid, constructed and contingent identities. At the same time, their highly developed functionality challenges the notion of humankind's exceptionalism; for this reason, Haraway's ideas have been incorporated into post-humanistic studies, which will be crucial for the discussion in the following paragraphs. Focusing on post-humanism, we will temporarily set aside eco-feminist studies, which we have examined so far, to explore the common ground among all living beings and the connections that link us to other species.

3.3 Post humanist Critique

Posthumanism draws on multiple strands of thought and points in multiple directions, from a questioning of the centrality and exceptionalism of humans as actors on this planet or the relationship to other inhabitants of the earth to a re-evaluation of the role of objects and space with human thought and action, or the extension of human thinking and capacity through various forms of human enhancement. Posthumanism takes “humanity’s ontological precariousness” seriously (Fuller in Alastair, 2011, 7). Post-humanists can be seen as post-exclusivist, an empirical philosophy of mediation which offers a reconciliation of existence in its broadest significations (Ferrando 2013, 29). They ask again about our relation to our planet, other animals, and objects around us and how we conceive ideas such as human agency, human nature, or universalism.

Looking at the post-humanist Manifesto by Robert Pepperell (Pepperell, 2003), I report below the passages that are considered more meaningful for our analysis:

-Most philosophical problems are debates about language. They arise because of the mistaken assumptions

a. that language is consistent

b. that because a word exists, there must exist a 'thing' that it represents

c. that the things that are represented should, in themselves, be consistent.

-Science will never achieve its aim of comprehending the ultimate nature of reality. Although many scientists do not acknowledge this, it is a futile quest.

-The universe(s) will always be more complex than we ever understand.

-The posthuman accepts humans have a finite capacity to understand and control nature.

- Logic that seems consistent at the human scale cannot necessarily be applied to the microcosmic or the macrocosmic scale.

-Humans and the environment are different expressions of energy; the only difference is the form energy takes.

- Human thought is something that occurs in cooperation with the human body. It is unnecessary to identify where it occurs because it does not occur precisely in any 'part'. Thinking of thoughts as blocks of data in the brain is tempting. This would be a mistake since it reinforces a static view of mental activity. A thought is a path through the cognitive medium.

As we navigate the posthuman era, we encounter questions that would have been inconceivable in the humanist era: What defines a human? Is there a definitive answer? Human thought is not a closed, linear system. While understanding that mind, body, and environment are inseparable, we must acknowledge the potential impact of even the most subtle environmental stimuli on the thought process.

-Humanists saw themselves as distinct beings in an antagonistic relationship with their surroundings. Posthumans, on the other hand, regard their own being as embodied in an extended technological world.

The post-humanist theories are thus fundamental in dampening our perception of the world and looking at everything that has been obscured to maintain the human/animal divide in particular for what concerns communication:

- -The possibility of a meaning that goes behind the human perception (eco-semiotics and swarm intelligence)
- -The existence of non-verbal languages (body language)

In the next section, eco-semiotics, swarm intelligence, and body language will serve two purposes: first, to demonstrate how insufficient it is to conceive language as only words made, and second, to dampen the human-animal divide by attesting to the existence of very different types of communication that already belong to us.

3.4 Eco-Semiotics

Beginning with a critique of human exceptionalism, eco-semiotics provide a broader, non-anthropocentric framework for understanding communication. This approach is based on the idea that all beings exist within a system that their bodies can interpret as a series of stimuli. The unique characteristics of these stimuli vary depending on the different bodies that receive them. Nevertheless, Eco-semiotics does not focus on those differences but on the commonality of the system in which the sentient beings who decode the stimuli are immersed. This conception situates humans in an enlarged context in which we are only one of the many translators of the world system.

Eco-semiotics, as a branch of semiotics, emerged in the mid-1990s to scrutinise semiosis or sign-mediated aspects of ecology (including relations between human culture and ecosystems). It has been defined as the study of sign processes which relate organisms to their natural environment. (Maran 2017, 5). This means that eco-semiotics is one of the semiotic theories that extend the scope of a central concept of semiotics —the sign understood as a mediated relation— from human culture to other species and, particularly, to ecological systems. More recently, ecosemiotics has been specified as a branch of semiotics that studies sign processes responsible for ecological phenomena (Maran and Kull 2014, 41). Eco-semiotics deals with the semiotic processes that relate to or address the broader context of living biological processes through measurements and geographies or taking these as human cultural constructions; it thus offers a third way of understanding landscapes (Maran 2020, 7). In an eco-semiotics view, the land area becomes a composition of various environmental resources and affordances with several perceivable interfaces and various species that relate to the habitat based on their biological organisation and needs. Following this assumption, our way of decoding the environment would be just one among many. Thus, eco-semiotics findings are more quantitative than qualitative.

Instead of concentrating the effort on sorting which kind of language is the more developed or, the more complex, eco-semiotics find out that the actual idea of language is relatively narrow to contain all its “natural” diversity. In an eco-semiotics view, human language becomes just one among many other semiotic systems in nature that contribute to making the world significant (Maran 2020, 1).

One of the significant contributions of eco-semiotics, as far as language is concerned, is that the environment plays a role in constructing meaning; this process also takes the name of nontrivial causal. To say this with an example, nontrivial causal spread occurs whenever something that we might have expected to be achieved by a specific well-demarcated system involves exploiting more far-flung factors and forces. For the Mississippi alligator, the temperature of the rotting vegetation in which it lays its eggs determines the sex of its offspring. This is an example of a nontrivial causal spread (Clark 2004, 222). This, conceived in a broader vision, specifies the role of the environment in the very continuation of the species of which information, or echo signals, should be managed by its components, who are somehow forced to decipher them for their survival.

Being able to understand the ‘environment speaking’ could thus be decisive in anticipating and influencing what is happening around us, that is, nothing more than the exhumation of the ancient Lek (Local ecological knowledge), which, indeed, were developed in a world where the contact with nature was much more present, and necessary indeed to the agricultural society. Eduard Cohen offers a beautiful reflection on the subject in *How Forest Think* (2013), on which the author has been working with Indigenous people while staying in Avila, in the Amazon Forest. During that experience, he realized how humans and more than human beings were coworking in deciphering the same environment. As he argues:

Signs are not exclusively human affairs. All living beings sign. We humans are, therefore, at home with the multitude of semiotic life. Our exceptional status is not the walled compound we thought we once inhabited. (Cohen, 2013, 42)

In this view, the environment should acquire new importance and meaning, especially when dealing with something involving many species. In this conception, which is intrinsically antispectist, everything that would impact the environment, to be respectful of all the components that inhabit it, should be as close as possible in taking their vision into account. To make it clear with an example, the construction of the eco corridors, to be truly functional, should be aware of both the kind of signal that the environment in which they are to be constructed transmits and then of the different reception ways that the potential corridor users dispose of. This perspective also makes it easy to assess the proportion of human impact on the environment in this ‘sign’ system. With all our different forms of pollution, we are (among all the other effects) compromising the capabilities of other beings to interpret the environment and act appropriately. A perfect example of this is the beaching of whales, often due to the infrasonic sound emitted by ships that undermine their ability to eco-localise themselves, which is reported to lead to confusion (Giggs 2020,23).

Rising temperatures, for instance, affect birds' reproduction cycles. Birds are prompted to breed when they perceive a warmer environment—albeit in the wrong season—but as the temperatures decrease, they will no longer be able to support their offspring. (Carey 2009, 9).

For the aforementioned reasons, eco-semiotics fall under the category of extended language proposed by post-humanist studies. In addition, it is right to specify that conceiving the environment as part of the construction of meaning means to catch it in all its entities, such as dampening the world's perception of all the other senses and, in such outings, the view domain. In conclusion, accepting the environment as a producer of meaning can pave the way for new theories to flourish in other areas. As we will explore in the next section, these frameworks have the potential to reshape our understanding of collective intelligence, which spans across species and ecological systems

3.5 Swarm Intelligence

In the book, *The Wisdom of the Fool*, edited for the first time in 2004, Lewis Durst discussed an experiment by Francis Galton, Charles Darwin's cousin, who asked the participants of a fair to try to guess the weight of an ox. Nobody got the correct answer; however, what he got from the experiment was that the average guess was closer to the result than all the individual attempts. This fact suggests the power of collective reasoning, in which a group's collective input is often more accurate than any individual's guess.

This concept is not limited to humans. In nature, social animals like ants, bees, and birds exhibit sophisticated collective behaviour without central control (Sueur et al., 2021). Collective intelligence has recently been re-evaluated, as demonstrated by the widespread brainstorming technique or the practice of peer review in academia. Moreover, collective intelligence, as we will see later, has also been considered central in modern robot programming.

Again, the scope of citing scientific developments in this context is not to suggest them as a utilitarian solution but rather to suggest that some other than humans praxis and behaviours are already functionally integrated into the 'techno-world', and for this reason, they constitute something that we can understand and include in our society, with the evergreen aim of abandoning our egocentric anthropocentrism and embrace other forms of life/ intelligence.

Research into swarm and collective intelligence is becoming increasingly popular for examining issues related to large-scale society. It addresses concerns that directly challenge human anthropocentrism, starting from the assumption that it is not difficult to agree that certain things exist independent of human perception. There is no good reason to cling to the anthropocentric insistence that the world is only there insofar as humans perceive it (Pennycook, Alastair, 2018, 118).

Looking at this dimension is another way to rearrange the human role in the eco-system, not in a qualitative optic—as I am not comparing different kinds of intelligence—but quantitatively, such as asserting that there exist many other forms of intelligence and that we are not the only capable specie on the planet.

In this regard, distributed processes, common to different disciplines, from cognitive science to computing and ecology, are worthy of attention because they challenge both the rivalry inherent in the capitalist system and, therefore, the social hierarchy that it proposes:

Distributed cognition, unlike the extended mind, is not a kind of cognition, moving out from an assumed centre, but rather the condition of all cognition ‘‘distributed cognition begins with the assumption that all instances of cognition can be seen as emerging from a distributed process (Giere 2007, 313)

From a distributed cognition point of view, it is a wider understood world that becomes part of the processes of cognition. Sensory or linguistic inputs are processed by our cognitive apparatus and dispatched again as action or output. This cognitive sandwich approach—as Hurley (1998) calls it—in which cognition is the filling between perception as input and action as output, is challenged by situated, extended, or distributed cognition, which seeks to understand cognition as extending outside humans into their physical and social environments (Pennycook, Alastair, 43). Looking at other species' organizations is fundamental in grasping the complexity and functionality of swarm intelligence in nature:

The issue is not to suggest that ants think in human terms or have a theory of mind, but rather that they operate collectively in a way that resembles a thinking organism. The different subsystems of an ant colony (with different types of ants and different means for signalling information) provide an overall structure that enables ‘‘ an organism to be ‘intelligent’ in any reasonable sense of the word (Hofstadter 1979, 324)

Bees, for example, according to the way Karl von Frisch, even though they are believed to have a hierarchal society, have been discovered not only to communicate through dance but also to make collective decisions for the selection of the support site in which, however, each member retains its decision-making independence. Ants, among the most resistant species on our planet, use collective intelligence to locate food, communicate the imminence of danger and recognize the colony’s members through exchanging pheromones (Carr-Markell and Spivak 2020).

Moreover, it is sufficient to think of flocks of birds in the sky or fish in the sea and all the marvellous choreographies they can enact. These beautiful dances are possible because each ‘section’ of the group communicates with the near ‘sections’ that respond according to the signal emanated. For what concerns fishes, the signal is the water displacement they can locate, and the same happens with air for birds, resulting in a domino effect (Sasaki and Bir 2017). Thanks to their high functionality and intrinsic resilience, these animal systems have recently been applied in AI development and, more generally, in robotic research.

Swarm intelligence (SI) refers to the phenomenon where consistent global collective motion emerges from a swarm's cooperative behaviours through local environmental interactions. A swarm is made up of a large number of homogenous and simplistic entities, all operating without central control or management. Each entity performs simple, often repetitive tasks. By interacting with both the environment and each other, these entities can overcome individual cognitive limitations, allowing global behaviours to emerge. Inspired by social animals, distributed swarm systems aim to develop robotic systems that possess similar features of swarm intelligence found in these social creatures (Haibin, Mengzhen, and Yanming 2023, 4).

Research on the mechanisms of large-scale swarm movement of biological groups, such as birds and fish, has attracted extensive attention from researchers in different fields. Through simple rules and local interactions, biological groups show collective behaviours with strong robustness, high self-adaptiveness and good scalability, which are the desired characteristics of a swarm-robot system. As Haibin Duan, Mengzhen Huo, and Yanming Fan report in their study:

From the perspective of information flow, designing the local interaction mechanism can not only enhance the coordination ability and robustness of the swarm system but also improve communication efficiency to break through the bottleneck effect of communication (Haibin Duan, Mengzhen Huo, and Yanming Fan, 2023, 5/6)

Recent studies on swarm and collective intelligence confirm that there's a lot in our way of thinking about and perceiving the world and that there's another world outside our senses. I believe that the extended understanding and integration of Swarm Intelligence could revolutionize our society by transforming it into a more collective system than the competitive one we are used to.

The *American Scientist*, on this purpose, suggests fruitful applications in our society's decisional practice, for example, to structuring each deliberation as an open competition of ideas or promoting diversity of knowledge and independence of opinion among members of a group, furthermore, aggregate views in a way that meets time constraints but wisely uses the breadth of knowledge within the group (Seeley, Passino, and Visscher 2006),

Recent applications will soon be proved and tested in medical response production and AI training; how can an enlarged use of those intelligences reshape industries, education, and politics, but mainly our human/ non-human relationship?

3.6 Body Language

The study of body language, which started in the sixties, has only recently found a way to join general linguistics precisely because the imposing curtain of the dualism mind/ body hindered it. According to Alastair, what traditional language perception is missing is all the relations between bodies and the world, bodies and objects, and the tactile, affective and sensual elements of human life.

To him, the philosophical tradition that gave us a mind separate from a body was generated, classed and racialized, and the linguistics that emerged in this tradition was similarly narrow, excluding all those bodily aspects of life that only some people can afford to ignore. (Pennycook, Alastair, 70)

Maurice Merleau-Ponty's perception studies have been meaningful on this subject: in criticizing Saussure's theories, he pointed out that perception had a primordial nature, innate and structural, that antecedents mind in the construction of meaning: "we perceive and understand others through our bodies, and the reciprocity of intentions creates sense in communication" (Ponty'1962, 215).

In language, we take up a position in the world of meanings where the body makes itself understood by external witnesses. The experience of our body gives us an ambiguous mode of existence; we are both objects and consciousness (Ponty, 75).

Nevertheless, if we think about it, we are already used to grasping and receiving many types of body language from other species. Just think of the movements of the tails of cats and dogs, the gnashing of teeth, our smile. In addition, the existence of a sign language which functionally fulfils the communicative needs is sufficient to prove the efficiency of these 'other' communicative systems. This means that communication can take place in different ways and that each of them contributes to the definition of the message:

For this purpose, it is important to note that we forget about the other ways we talk when we talk. The scientific term for this is that communication is multimodal; another type of researcher found that of the fifty-two body movement gestures one in two old humans use, such as head shaking, etc, are also found in chimpanzees. (Pennycook, Alistair, 2018, 90)

For this reason, starting from the body as a common point in the communication systems of our own and other species can be relevant in undermining human/nature dualism and reshaping our egocentrism as a species. As the case of horse Hans the Smart demonstrated, some other than human animals are already capable of reading our body language. Hans had been part of an experiment that happened in the early years of the XX century in Germany, in which Wilhelm von Osten, an ex-math teacher and passionate about animal psychology, was convinced to have been successful in teaching the horse to read the alphabet, count the objects, understand human language, and solve easy math equations. Hans, in fact, was answering correctly to all Wilhelm's questions. Because of his smartness, Hans soon became a celebrity, so much so that it attracted the attention of other scholars intent on ascertaining its prodigiousness; among them was Oskar Pfungst, who made an unexpected discovery: Hans was not successfully answering the question because he understood the problems, but because he could read the changing in Oskar posture and micro-facial expression, and the flowing of his breath (Samhita and Gross 2013).

The body, to say it in Clark's words,

Is the point of sensorimotor confluence, the gateway to intelligent offloading, and the stable platform whose features and relations can be relied upon. In the computations underlying some intelligent performances, the body plays a role in the organization and genesis of intelligent behaviours." (Clark, 2004, 207)

Hans's case confirmed the horse's smartness, demonstrating that his capabilities overcame humans if only understood in the right systems, such as body intelligence. As Einstein once said, "Everyone is a genius. But if you judge a fish by its ability to climb trees, it will spend its whole life thinking it is stupid"; when we assess the intelligence of non-human animals, we tend to use humans inappropriate standards. The Hans experiment showed that we must be open to welcoming different types of intelligence when approaching other species, as human intelligence should not be the standard for measuring others. This contradicts the Mirandolian that man is the measure of all things, leaving anthropocentrism aside and creating space for other species on an equal footing. Similarly, considering other species capable of communicating with systems that differ from the verbal system is to endorse other cognitive and relational methods and thus argue the 'suprematism' of reason over the body.

The bodily communication, and in this case specifically the spontaneous one, that is not normalized by sticking to a pre-established and shared system indicates a kind of receptivity other than mental. This is accompanied by a different perception of the environment and a different processing of meaning, which starts directly from a response to the environment in which the speaker is inserted. The body's responses are direct reactions to the environment; the mind does not firstly mediate them; in this sense, they are also the demonstration of another way of perceiving, as Pearson argues,

The broader definition of language as natural and communicative is also linked to a definition of persons as not simply rational but as affective and embodied. In this alternative definition, exemplified by manualists and animal protectionists, the body is a resource rather than an embarrassment; it is the grounds for inclusion rather than exclusion. It is the source of language, not its antecedent or antithesis." (Pearson, 2013, 108)

Starting from the body could be meaningful in broadening the conception of language and proposing a tactile perception of the world. Looking again at the evolutionistic theories, for example, even starting from the finches, from which Darwin made all his brilliant deductions, the body's importance appears irrefutable. The fact that Galapagos finches had different beaks to grasp could be understood just like a body response to the eco-signals sent by the environment. The body's response to the environment is in fact, an important component in the evolutionary process. Being in an environment involves a total body perception as it is our whole body that responds to the stimuli from which it is surrounded, limiting our apprehension to only the view domain thus could only lead us to a partial understanding of the system in which we are immersed in:

We need to move beyond the commonplace focus on multilingualism and multimodality to bring in the multisensorial nature of our worlds. This is important not just to accomplish better and more complete urban ethnographies but also to readdress a historical imbalance that has placed language and cognition in the head while relegating the body and the sense to the physical (Pennycook, Alistair, 71).

If we focus on the assumption that our language was, from the beginning, generated from gestures and body language, we understand the ‘universal’ receptibility of body language as bearer of meaning. This ‘universality’ is the bridge between our species and the other, in addition, in order to be ‘managed’ properly, body language should be understood in a natural system that is mutable and flexible and that continuously renegotiates its limits, components, data stores, and interfaces, necessitating for this reason of a deeper consideration of the context that produces it:

On this account, the body is both critically important and constantly negotiable. It is not simply the point at which processes of transduction pass the real problems to an inner engine of disembodied reason. Instead, much of our successful performance depends on constant and subtle trade-offs among morphology, real-world action and opportunities, and neural control strategies (Clark 2004, 40).

Among the greatest body language expressions is dance. Dancing is a significant component of humans' cultural identity, which recognizes, in the movement, their national provenience and the emotions associated with a particular kind of body practice (e.g., courtship dances, folk dances, propitiatory dances). The same goes for birds in their love season. It is worth noting here that birds are also among the species with the most varied range of sounds, yet they dance. Can't this also be a suggestion of the unity of mind and body and, on the other hand, of the communicative insufficiency of sonority alone?

3.7 Conclusions

This second chapter aims to enlarge language perceptions so that many other living forms can enter them. Since, as we have already ascertained, linguistic ability is seen as identifying human superiority over other species, challenging this assumption is crucial to dismantling anthropocentric views and fostering a more inclusive understanding of intelligence. In the first part, a brief analysis of the intrinsic values of silencing and making heard has been provided. In the second section, different types of intelligence (swarm intelligence, cyborg) and language (eco-semiotic, body language) have been presented under the lens of post-humanistic studies, one of whose goals is to challenge human absolutism. Looking at other forms of language and intelligence is what we need to re-asset our place within the Earth's ecosystem. There is still so much to learn about living things. However, all these pieces of the immense mosaic of biodiversity only magnify the scale of our very heavy destruction: we have already lost much more than we have been able to quantify. On the other hand, the awareness of this great unknown should be an incentive to take the seat of the listener or the observer again in front of our world.

As Gaard argues:

Not surprisingly, feminist methodology emphasizes listening as a hallmark of good scholarship – listening to one’s research subjects, to the oppressed, to one’s activist and scholarly community – and creating structures for collaboration whereby the research subjects can themselves set the agenda, express needs, and benefit from the scholarly endeavour (Gaard 2012, 5).

As suggested by feminist scholars, listening will be the practice recommended in the following chapters to challenge our behaviour towards more-than-human animals and create a new dimension for rediscovering the importance of our emotions in fostering an empathic relationship with non-human species. At the same time, listening implies the necessity of making us apart and making it possible for ‘others’ to have a place to be heard, express themselves, participate and be considered in the dialogue as a single identity, and in brief, empowering them to re-acquire the since then negated agency and independence.

Chapter 3. References

- Barca, Stefania. 2020. *Forces of Reproduction: Notes for a Counter-Hegemonic Anthropocene*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781108878371>.
- Beauvoir, Simone de. (1949) 2011. *The Second Sex*. Translated by Constance Borde and Sheila Malovany-Chevallier. Reprint. New York: Vintage.
- Carey, C. 2009. "The Impacts of Climate Change on the Annual Cycles of Birds." *Philosophical Transactions of the Royal Society B: Biological Sciences* 364 (1534): 3321. <https://doi.org/10.1098/rstb.2009.0182>.
- Carr-Markell, Morgan K., and Marla Spivak. 2021. "External Validation of the New Calibration for Mapping Honey Bee Waggle Dances." *Animal Behaviour* 173: 89–98. <https://doi.org/10.1016/j.anbehav.2021.01.002>.
- Chomsky, Noam. 1980. *Le strutture della sintassi*. Italia: Laterza.
- Clark, Stephen. 1999. *The Political Animal: A Study in the Philosophy of Aristotle*.
- Derrida, Jacques. 2008. *The Animal That Therefore I Am*. Regno Unito: Fordham University Press.
- Durst, R. Lewis. 2011. *The Wisdom of Fools*. Stati Uniti: Tate Publishing & Enterprises, LLC
- Duan, Haibin, Mengzhen Huo, and Yanming Fan. 2023. "From Animal Collective Behaviours to Swarm Robotic Cooperation." *National Science Review* 10. <https://doi.org/10.1093/nsr/nwad040>.
- Ferrando, Francesca. 2013. *Philosophical Posthumanism*. London: Routledge.
- Gaard, Greta. 2012. "Feminist Animal Studies in the U.S.: Bodies Matter." *DEP Deportate, Esuli e Profughe* 20: 36–58.
- Giere, Ronald. 2007. "Distributed Cognition Without Distributed Knowing." *Social Epistemology* 21: 313–20. <https://doi.org/10.1080/02691720701674197>.
- Giggs, Rebecca. 2020. *Fathoms: The World in the Whale*. New York: Simon & Schuster.
- Haraway, Donna. 1985. *Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century*.
- Hofstadter, Douglas. 1979. *Gödel, Escher, Bach: An Eternal Golden Braid*. New York: Basic Books.
- Kohn, Eduardo. 2013. *How Forests Think: Toward an Anthropology Beyond the Human*. Regno Unito: University of California Press.
- Libatique, Daniel. 2018. *Tereus, Procne, and Philomela: Speech, Silence, and the Voice of Gender*. PhD diss., Boston University.

- Maran, Timo. 2020. *Ecosemiotics: The Study of Signs in Changing Ecologies*. Tartu: University of Tartu.
- Maran, Timo, and Kalevi Kull. 2014. "Ecosemiotics: Main Principles and Development." *Human Geography, Series B* 96 (1): 41–55.
- Meijer, Eva. 2019. *When Animals Speak: Toward an Interspecies Democracy*. New York: Columbia University Press.
- Merleau-Ponty, Maurice. 1962. *Phenomenology of Perception*. Translated by Colin Smith. London: Routledge.
- Mustill, Tom. 2022. *How to Speak Whale: A Voyage into the Future of Animal Communication*. New York: Grand Central Publishing.
- Pearson, Susan. 2013. "Speaking Bodies, Speaking Minds: Animals, Language, Theory." *History and Theory* 52 (4): 91–108. <https://www.jstor.org/stable/24542960>.
- Pennycook, Alastair. 2016. "Posthumanist Applied Linguistics." *Applied Linguistics* 39: amw016. <https://doi.org/10.1093/applin/amw016>.
- Pepperell, Robert. 2003. *The Posthuman Condition: Consciousness Beyond the Brain*. Bristol, U.K.: Intellect Books.
- Samhita, Laasya, and Hans J. Gross. 2013. "The 'Clever Hans Phenomenon' Revisited." *Communicative & Integrative Biology* 6 (6): e27122. <https://doi.org/10.4161/cib.27122>.
- Sasaki, Takao, and Dora Biro. 2017. "Cumulative Culture Can Emerge from Collective Intelligence in Animal Groups." *Nature Communications*. <https://doi.org/10.1038/ncomms15049>.
- Saussure, Ferdinand de. 1985. *Course in General Linguistics*. Translated by Roy Harris. London: Duckworth.
- Seeley, Thomas D., Kevin Passino, and Kirk Visscher. 2006. "Group Decision Making in Honey Bee Swarms." *American Scientist*, January 1, 2006. <https://www.americanscientist.org/article/group-decision-making-in-honey-bee-swarms>.
- Spivak, Gayatri Chakravorty, ed. 2010. *Can the Subaltern Speak? Reflections on the History of an Idea*. United Kingdom: Columbia University Press.
- Suen, Alison. 2015. *The Speaking Animal: Ethics, Language and the Human-Animal Divide*. London and New York: Rowman & Littlefield International.

Sueur, Cédric, Christophe Bousquet, Romain Espinosa, and Jean-Louis Deneubourg. 2021. "Improving Human Collective Decision-Making Through Animal and Artificial Intelligence." *HAL*. <https://hal.science/hal-03299087v3>.

Timeto, Federica. 2020. "Becoming-with in a Compost Society: Haraway Beyond Posthumanism." *International Journal of Sociology and Social Policy*. <https://doi.org/10.1108/IJSSP-08-2019-0158>.

Chapter 4. Communicating Cetaceans Through Literature

This chapter will take Alexis Pauline Gumbs' book *Undrowned: Black Feminist Lessons from Marine Mammals* (2020) as a case study to demonstrate how literature can serve as a channel for promoting interspecies communication. Thus, the first section introduces the author and her apport to the Black Feminist movement; Gumbs is, in fact, socially committed to redeeming oppressed communities through its crafts. In her book *Undrowned*, marine mammals are called upon to narrate the intersectionality of forms of oppression on human and non-human animals. While recounting real anecdotes, Gumbs's style effectively highlights the beauty of resistance, a central theme of this analysis. The second part of the chapter will bring together the sections of Gumbs' book on three different marine species: Dolphins, Orcas and Humpback Whales. Each section will describe the species in question in the author's words (shown in italics), followed by a commentary on different social, historical, cultural, and biological aspects. One of Gumbs' greatest strengths is her ability to portray cetaceans in a way that neither claims to replace their voices nor reduces them to mere metaphors. Instead, she engages the human reader, prompting reflections on critical issues central to her work—Black feminism, colonisation, and capitalism's impact on society and global ecosystems. Following Gumbs's approach, this chapter examines how Dolphins, Orcas, and Humpback Whales contribute to an alternative understanding of interspecies relationships, emphasising listening, observation, and engagement with non-human life.

4.1 Undrowned Overview

Alexis Pauline Gumbs identifies as a Queer Black Troublemaker, a Black Feminist Love Evangelist, and an aspirational cousin to all sentient beings. Her mission is "to facilitate infinite, unstoppable ancestral love through various practices"(Alexis Pauline Gumbs, website). She participated in the Poets and Scholars Summer Writing Retreat 2023, focusing on Global Racial Justice. Gumbs is a versatile individual with remarkable artistic abilities, allowing her to convey the depth of her love-filled soul in numerous ways. Through her poetry, which has received several accolades, including Best American Experimental Writing and a Pushcart Prize nomination, she supports her communities in Durham, NC, the broader US Southeast, and the global south (Steingo, 2021). She champions the voices of Black queer feminists, empowering them to share their stories too often silenced by oppressive, discriminatory, and colonial forces.

Her outreach spans multiple formats, beginning with her books, including online courses, creating safe spaces for expression and listening, and contributions to blogs, magazines, and even film production. Gumbs takes pride in being a queer Caribbean author and scholar, following in the footsteps of notable figures like Audre Lorde, June Jordan, M. Jacqui Alexander, and Dionne. *Undrowned: Black Feminist Lessons from Marine Mammals* won the 2022 Whiting Award in Nonfiction.

The book could be intended as a guide to continue to breathe in our capitalistic toxic society; Gumbs suggests doing so through the nineteen practices that give a name to the chapters. *Undrowned* explores the relationship between marine animals, queer resistance and interspecies connections, rejecting the human-animal hierarchy and celebrating fluid and cooperative forms of existence (Timeto 2024, 75). The marine mammals included in the book are elegantly connected to Gumbs' values, such as Black Feminism and the defence of migrants and displaced people, which she hopes to support in becoming “*Undrownable*” just like cetaceans. In the following paragraphs, some extracts from *Undrowned*, put in italics, will be commented on, focusing on the three selected species' communication. The objective is to create a multidimensional discussion of these animals—scientific, literary, and poetic—broadening the perception of their existence. Through Gumbs's insights, the analysis aims to highlight interspecies continuities rather than human-animal distinctions. As the author said, if interlocking underground communication of trees, dandelion resilience, and responsive mycelium networks can inspire us to relate within and across species differently, so can marine mammals (Gumbs 2020, 11).

4.2 Ocean Pollution

More than 90% of the warming that has occurred on Earth over the past 50 years has occurred in the oceans (Giggs 2021,96). That is because if compared with the Earth, they have a bigger absorbing capacity —25% of total Co2 emissions are stored in the oceans— meaning that they warm faster, having as a consequence melting ice. This bigger absorption of Co2 leads to an alteration of the pH of the oceans, with repercussions on the flora and fauna present in the environment (Gandelli, 2022). This is due to the interconnectedness of the environment, where every slight variation can have significant consequences for the other species present in the ecosystem of which it is a part, in both direct and indirect ways that are simply unquantifiable. Any form of pollution, if not too heavy, finds its way into the water and the creatures that inhabit it to be transported for incalculable distances.

As the bigger plastic islands demonstrate, plastic is among those and it is present both in the macro form, with plastic bags and everyday objects, and in the micro-scale, with microplastic (plastic with a diameter inferior to 5mm). Moreover, due to sea currents, both are transported larger and larger until they reach the stomachs of the creatures that eat them, confusing the latter for food.

Furthermore, using chemicals like pesticides, fertilizers, and chemical products causes eutrophication such as the absence of oxygen in water), which eliminates the present flora and fauna; corals are one of the most noted examples of this process. Other substances, such as mercury, can instead bioaccumulate, meaning that they are ingested, thus contaminating the food chain. Other than all those forms, we must add the pollution caused by oil dispersal in the sea. As we all remember, the 2010 disaster in the Mexico Gulf was one of the biggest environmental disasters in history, lasting 80 days and releasing 780.000 m³ of oil disposal (Mercurlo, 2024). Finally, sound pollution caused by boats and sea sonars, drilling rigs, and wind turbines is particularly harmful to cetaceans' communication, which will be the focus of this chapter.

If Rachel Carson wrote *Silent Spring* (1962), noting the absence of sounds (bird voices) as symptomatic of the environmental deterioration caused by the dispersion of DDT (a pesticide) in the fields, the opposite is the case as far as oceans are concerned. It is the presence of noises, in fact, to be indicative of danger to the survival of its inhabitants. Jaques Cousteau was renowned in 1956 for a documentary series based on his memories of underwater exploration, *Le monde du Silence* (1956), but by the time of its release, the oceans were already drenched with artificial sound, what is called anthropo-phony (Giggs 2022,186).

The effect of this sonic disruption is to shrink the world of whales and other cetaceans. Their spatial perception and communication with one another diminish in range. Their horizon is constricted due to the noise from the ship and the surveyors' imposed limits, creating invisible barriers that the whales cannot navigate. The International Foundation for Animal Welfare (IFAW) reports that, according to their experts' calculations, for a whale born seventy years ago, the distance over which her vocalisations can travel has decreased from 1,600 km at the time of her birth to 160 km (IFAW 2016). What would this feel like? In childhood, your voice could be heard at the end of the street; approaching adulthood, it carried inside the house. Today, it is only audible in a hand you hold cupped your mouth (Giggs,188).

Some whales can adapt to a limited range of noises. However, noise pollution is ultimately more than auditory disturbance: it is also a disturbance for whales who sing to find a mate or whales that make sounds to communicate with their infants and rivals. Noise is a foraging disturbance to whales, relying on echolocation to identify and pursue squid, krill or tiny fishes. For a few cetaceans, noise likely impedes their ability to 'see' as those animals are thought to use rebounding sound to form a mental picture of the physical features of their surroundings and one another (Giggs, 191).

Cetacean senses are different from humans. Their smell and taste are mostly dull, and their vision is generally worse. But they can sense things we cannot. Some cetacean species could even be sensitive to magnetic fields. They must find mates to navigate around the ocean and find food. Unlike humans, they have to do so in the dark. However, because water is a denser medium, sound travels more than four times faster than the air, which gives opportunities for the keen-eared (Mustill 2023, 60).

We describe the world through our primary sense, vision. The sperm whale, on the other hand, like all its toothed whale and dolphin cousins, uses sound to communicate via vocalisations and to sense its surroundings by firing sonic “clicks”—so-called their sounds—ahead of it and listening to the returning echoes. The mode evolved by cetaceans to explore the environment is called echolocation and is based on the emission of ultrasounds with frequencies above 200 kHz. To have a yardstick for comparison, the human ear has a maximum perception of 20 kHz, ten times lower. The sound waves produced by these animals, when they bounce off objects in their range, are able to bounce back as echoes: in this way, the emitter can draw information about the size and distance of the target (Worldrise 2020). Humankind's changes in the oceanic realm have shaped how whales understand their world and how they relate to one another.

4.3 Dolphins

Because of their brain's large size and developed social culture, dolphins are among the most studied creatures in animal communications; it is important to outline that most experiments are conducted in captivity. For this reason, the studies proposed in this section have been selected (when possible) with a willingness to cite only those who have involved animals in their natural environment; this choice has been retained to be coherent with the thesis and the ethics that this work suggests. This section, as aforementioned, will start with a comment on Alexis Gumb's *Undrowned*. The book's parts referring to dolphins will be clustered and 'used' to focus on their sociality and communication system with the purpose of describing it not just as a smart skill but as a demonstration of the species' sociability, thus advocating for other animals' individuality and agency recognition,

These dolphins, like most dolphins, know something about intentional sound. About when to use high frequencies to find out where they are and when to use low frequencies to reach you across this increasing ambient noise (Gumbs, 19)

Ocean sound pollution mainly affects dolphins' sociability. Recent studies have found that dolphins produce several different whistle types and sounds. Evidence also shows that the sequential order of whistle production is an important feature of their communication system. The cetacean call types exhibit enormous variation, evolve over time and are used differently across social groups. In some cases, the variation is so pronounced that other species have learned to use it in judging predation risk. In bottlenose dolphins, there is evidence that this variation is the basis for a referential identity-labelling system (Marino et al. 2013, 0966-0969).

For one species to have a referential identity — labelling system— means recognising one's individuality and agency. How many meanings are hidden in the name of the one we know?

Naming thus means grouping these nuances into one and being conscious of the necessity of having a specific way to refer to someone else. Naming means having the possibility of constructing a precise image of the other in mind and consequently making her/him thinkable in a specific way. Some studies (Intini, 2016) on the subject even highlight that those whistle names are emitted even when the subject is absent, demonstrating dolphins' capability to think about their teammate even in their absence and keep them in their memory.

Dolphins are also reported to have episodic memory, meaning they can set a memory in an environment and time framework (Davies et al. 2022, 3436). What kind of memory are we building with our violence in another species' mind? How would that affect their life? How many things are we missing in our unstable destruction because our egocentrism has not given us the necessary attention?

Alexis Gumbs is also engaged on behalf of migrants and displaced people. For migrant communities, memory is an act of vitality, not passivity of recollection; it is a lifeblood that maintains identity, solidarity, and agency across distances. Memory closes the physical and temporal gaps caused by migration, maintaining the spirit of community and allowing for resilience in the face of systemic oppression.

Dolphins remembering absent individuals brings us full circle to the profoundly relational nature of memory, which may connect, heal, and inspire action across oceans and generations. Cultural memory for displaced people is the bridge between the past, the present, and the future; through it, migrants, even in dislocation, hold fast to their identity. This is often expressed through tradition, language, music, food, and spiritual life beyond borders. African diasporas have retained aspects of ancestral cultural traditions through storytelling, rituals, and art, preserving collective identity even after centuries of forced migration through slavery and colonialism.

Like the dolphins' memories that firm their cooperative behaviour, migrant collective memory has usually served as the base of organisation and resistance.

This connection to dolphins extends beyond metaphor and invites a re-consideration of how memory operates in complex social ecosystems. Their use of memory to maintain bonds and alliances, even across physical separations, challenges the human tendency to view migration as a solely human or cultural phenomenon and suggests a universal principle: that memory is essential for navigating and thriving in interconnected systems, whether aquatic or terrestrial.

Dolphins know how to travel in masses, too. I wonder if responding to violent strictures on human migration and systemic displacement of communities of colour also requires collaboration beyond species (Gumbs, 51)

Dolphins live in large, complex groups with highly differentiated relationships, including long-term bonds, higher-order alliances, and cooperative networks that rely on learning and memory. Some complexities typical of within-group primate alliances, such as individuals switching sides in different social contexts, are also seen among bottlenose dolphins. Moreover, “alliances of alliances,” observed in bottlenose dolphins, are rare outside our species, even among old-world monkeys and apes. Evidence also shows that individual role-taking has emerged in dolphin societies to facilitate cooperative relationships and decision-making processes (Marino et al. 2013, 0971).

How many things could we learn by looking at other species' alliances? Gumbs with his gentle pen, teaches us to look at them, to step outside ourselves and the rigid boundaries that inhabit our minds, and to understand the universality of the phenomenon of migration, against which too many painful barriers are raised in human regions.

They gather in a circle and flap their watery wings to collect as much plankton as possible and take turns eating while the rest of the circle holds the space. I recognize you, not of sharpened teeth or stinging tail, yet wide of wing, cooperation (Gumbs, 52)

In this sense, an inter-species collaboration that first puts itself in the position of discussing the foundation of our ideas and gestures of our communities to discover, after all, how much cooperation we can recover from the other animals

In the fluidity of the sea, almost devoid of physical barriers, movements between different species occur as a simple consequence of life. An inter-species collaboration that first puts itself in the position of discussing the foundation of our ideas and gestures of our communities would be a good tole to discover, after all, how much cooperation we can recover from the other animals In this step, Gumbs proposes a more fluid society into which to transpose the sea's motions, almost as if to forget, if only for a little while, the rigidity of the world our society has built and to do so together as humanity.

Black feminists like Angela Davis and Silvia Federici have linked migration to the global capitalist economy, highlighting how neoliberal policies create conditions of economic and political instability in the Global South, forcing people—especially women—to migrate. Black feminist critiques focus on borders as sites of racialised and gendered violence. Migration control mechanisms disproportionately target Black and other racialised communities, perpetuating state-sanctioned violence against women, including detention, family separation, and exploitation (see Davis, 2016 and Federici, 2018).

WHAT DOES IT MEAN TO function as a group in a changing environment? How can we organize ourselves intentionally to combat the embedded isolation of late capitalism? It seems like the dolphins (and our other interloping sharks...the manta rays) have something to tell us. From mothering as an emergent strategy in massive dolphin super-pods to pantropical synchronized swimming as a model of being prepared for large-scale direct action, the dolphins educate us on how to squad or pod up (Gumbs 2020,45)

Facing the weight of global change alone is quite impossible. Collaboration and alliance are what we need to achieve concrete and lasting results. Even if we are connected, our predicament makes us feel incredibly lonely. But trusting each other could make us stronger. One of the milestones of each form of feminism is sisterhood, and I believe that taking it as a practice has a too-often unrecognised potential. In troubled situations, we should not feel alone; instead, we should know that there is and will always be someone ready to listen to, care for, and love us just as we are. I believe that to be one of humanity's duties. We are animals, and most of us are social beings, have cultures, and find our peace in this way.

And after we finish proving we are smart and capable of feeling to those who somehow think that it is wise to boil the world, what then? I love the parts of you that no one thinks are particularly special. I love the basics of you, unmarketable and everyday. I love to be around you because the round around you thrills me. And let's get together again soon. A whole bunch of us. I love you more than press conferences can say. Breach when you want to (Gumbs, 61).

In this passage, which we can consider a hymn to love, the author implicitly criticises the utilitarianism that has characterised human-nature relations. Hers is an invitation to the detailed, non-stereotypical observation that knows how to embrace the imperfections that make us free, unconventional, and authentic. Gumbs teaches us to love in the negative of today's rampant perfectionist spirit; in this also her cry to leave behind anthropocentric omnipotence to accept our finiteness and vulnerability and understand that even these shaky parts of us can find space in the heart of the beholder. Only if we understand nature, lives, and ecosystems as a whole, only if we refrain from evaluative eagerness can we finally stand in respect of life because it is meaningful in itself, not because it is useful, not because it is intelligent, but simply because it is beyond us and deserve to be so. For therein lies one of the mirrors of its existence, reminding us of our relativism and making us humbly accept our relative position in ecosystem systems.

4.4 Orcas

The most tiered multilevel society so far discovered in the ocean is that of the orcas whale (*Orcinus orca*). At least in the North Pacific, northeast Atlantic and Antarctic oceans, this species is segregated into “ecotypes”. The ecotypes are morphologically, genetically, culturally, and ecologically distinct, although they may share the same waters. Thus, it is unclear whether ecotype should be considered a level of the multilevel society of orcas. These whales, which eat mainly salmon, live in stable matrilineal groups containing an older female and all her male and female offspring; there is no dispersal between groups (Whitehead et al. 2012, 1143-45).

In matrilineal, multi-generational groups all over the planet, orca families influence all the other species in their range. They inspire seals to move onto land and impact the migration of animals as varied as moose and humpback whales. In truth, the orca is a large dolphin, but there is no species on Earth too large to fear her. And they give respect. Orcas greet each other respectfully as distinct resident groups and celebrate their own social order. They collaborate on caring for their young (Gumbs, 62).

Matrilineal groups with similar vocal repertoires spend most of their time travelling together as members of the same pod, and distinctive vocal repertoires can be used to identify pod membership unambiguously. Pods that share some parts of their repertoires are members of the same clan, and one to three clans form a community. Communities have largely distinct ranges and show slight but consistent genetic differences. Mating usually occurs between clans but within communities, except when there is only one clan. Characteristics and behavioural patterns are linked to various elements of this hierarchical social system, such as clan-specific vocal signals and community-specific greeting ceremonies. Together, they care for and suckle each other’s offspring and defend themselves communally. While most females spend their lives in the same social unit, and so the units have a matrilineal structure, there are occasional transfers between units, as well as unit fission and fusion. Thus, at least in the Pacific, units frequently contain several matrilineal lines, and there appears to be some social structuring within them, e.g., the social affiliation between pairs correlated with relatedness in one well-studied unit in the Atlantic in which all females were closely related. Due to the progressive diminution of the population’s number, orcas whose gestation lasts between 12 and 16 months recently faced an augment in birth deaths; this is caused by the restricted diversification of the genes transmitted, which at their time are made weak by the scarce food availability. (Gero et al. 2008, 838-843).

What can we learn from the orca, for example, about the sad farce of human dominion? What does it mean to love someone who has seen her children taken and, at the risk of capture, stayed to witness and scream? Who will carry around the corpse of her child until her grief has reached another stage? Who will not pretend that her heart is not broken when it is? Do we know how to love a love that huge and unapologetic? Could we learn that? (Gumbs,63)

The protagonist of this story is Tahlequah, who, in 2017, for 17 days, carried her/his dead cub on her front, refusing to separate from her/him. The progressive disappearance of salmon threatens orca populations, and the excessive traffic by sea, which is due to noise, prevents them from using echolocation correctly, all the baby orcas born in the last three years in Tahlequah's population died at birth or died soon after giving birth, while in the last 20 years, only one-third of them survived. (Pulkkinen 2018)

Bioacoustics researchers aren't the only ones listening. So are orcas who regularly hunt this smallest of rare whales. So, they speak quietly and carefully organize themselves in groups. They have one of the most complex levels of social organization (by sex, age, and reproductive condition) of any whale. When alone, they organize anyway, sharing space and respecting hunting boundaries. They've kept observation of their mating—even their child-parent relationships—from researchers. But again, all of this organization happens quietly. What would Kevin Quashie say? The quiet of the hunted. Is it sovereign (91)

For example, the eastern North Pacific orca populations are structured into several social tiers with distinctive cultural attributes in vocal, social, feeding, and play behaviour. Social complexity and culture in cetaceans depend on a complex and flexible communication system, encompassing vocal, visual, tactual, and possibly chemical signals. There are differences across cetaceans in their sound. Cetaceans also supplement their repertoire of vocal signals with visual cues (e.g., changes in body posture), tactile behaviours (e.g., flipper touching, teeth raking), and nonvocal auditory behaviours (e.g., breaching, lob tailing). The temporal sequencing of these latter nonvocal communicative events can be highly structured, demonstrating a complex and diverse, quiet, nonvocal communication system (Whitehead et al. 2011, 1156-1158).

In his book *The Sovereignty of Quiet* (2012), Kevin Quashie, mentioned in the afore-reported discourse, develops his thought ideas starting from the non-vocal communication system. The occasion is the Mexico City Olympics' game of 1968 when, during the permeation, two Afro-American athletes, Tommie Smith and John Carlos, raised their hands, symbolizing their support for the anti-racism movement.

While doing this, the two men bowed their heads and gathered as if praying. Kevin, focusing on those silent particulars, decides to give voice to those spontaneous quiet movements, which are the point from which his discourse develops:

The idea of quiet can shift attention to what is inside. This shift can feel like a kind of heresy if the interior is thought of as apolitical or inexpressive, which it is not: one's inner life reminds us that it is raucous and full of expression if we can remember to distinguish the term "expressive" from the notion of public. Indeed, the interior could be understood as the source of human action, and anything we do is shaped by the range of desires and capacities of our inner life. (Quashie, 2011, 57)

In referring to 'quiet', he does not negate the necessity of continuing to fight for achieving equal rights for all oppressed communities. His claims aim to create space for something often overlooked in the struggle of that movement, something intrinsically human: the inner life, this self-intimacy that makes us so unique. It is not a question of forgetting the intensity and indecency of slave violence against black people, but simply of restoring a fuller picture of the humanity of those who slaves were (Quashie, 2018, 146)

Gabriela Cowperthwaite's film *Blackfish* (2013) has also been made to restore the picture, in this case of the orca Tilikum, which has spent the bigger part of its life detained in captivity in the Sea World aquarium in Orlando, Florida. Tilikum was involved in three fatal accidents, and the film explores how the conditions of captivity affected his behaviour and psychological well-being, leading to the death of a trainer, Dawn Brancheau, in 2010. The documentary sheds light on the issues surrounding the captivity of marine animals, using Tilikum's story as an emblematic example. On this issue, Timeto reminds us that, aquarium as much as zoos,

From being private spaces used to display wealth and power, became devices for conveying supremacist and colonialist ideology by exhibiting caged bodies that were also human, racialised, sexualised and disabled offered to the gaze of white families to reassure them of their own moral and cultural superiority in the face of the staging of animal authenticity, which, however, had always to remain visibly separate and confined, (Timeto 2024, 58)

Orcas, however, are also able to rebel and resist, they sometimes in fact gather and self-organize in the quietness of the oceans. Yet, as the Journal of Marine Mammal Science noted (Mulvaney, 2024), they are capable of powerful collaborative hunting and subversive action, as when they attack and sometimes even sink human boats off the Iberian Peninsula. The same study points out that these animals in the area where they live are threatened by tuna fishing, pollution, noise and, indeed, collisions with ships. Could we, too, be able to make our voices heard against the ones who are treating our existence?

Furthermore, recent studies have discovered that orcas possess a part of the brain that humans do not. This part may be linked to the emotional sphere and unconsciousness (Mulvaney, 2024). Could this part that is absent in us allow orcas the pleasure of sharing, helping each other, and gathering? Perhaps if we took the time to observe differently, to contemplate, which, according to Quieshe, is an essential, simple and beautiful part of what it means to be alive and to which we must look at and try to understand. However, as the same noted, seeing and understanding it requires a paradigm shift in our reading, research, expectations, and even what we remain open to. To see recollection, we need to pay attention differently (Quashie, 2018, 155)

4.5 Humpback Whales

The Humpback whale, the biggest toothed whale species, is a deepwater predator that feeds principally on cephalopods at depths below 300 m. It is an animal of extremes, possessing the largest brain on Earth, the most potent natural sonar system, and possibly the most significant biomass of any mammal before human population expansion over the last two millennia (Whitehead et al. 2011, 1144-1150). Once, the beaching of a right whale was an offering to the whole community, representing nourishment, light, shelter and warmth (Gumbs, 26). With the Industrial Revolution, however, maritime empires and developing countries became used to whaling to provide energy to growing Western cities. In Herman Melville's time (1819-1891), when industrial society ran on whale products, cities were illuminated with burning whale oil, and corsets were ribbed with baleen from their mouths (Mustill 2023, 60). Whale oil also expanded into two corner store goods of working-class life: soap and margarine. In the early 1900s, living standards improved, and a growing concern for hygiene, alongside an awareness of germ theory, fostered a burgeoning market for soap. In the 1920s, advances in hydrogenation technology made whale oil palatable in margarine: touted as an inexpensive, healthier alternative to butter, margarine made whale fundamental to Germany, Scandinavia and Great Britain's diets (Giggs 2022, 59). With thinner viscosity than modern vegetable oil, whale oil meets many needs. It lubricated mechanical gears in textile and metalwork factories and was used for cleaning wool and tanning leather. The oil-lit smokeless streetlamps, factor-floor, and shop lights extended trading hours and mercantile business into evening hours (whales contributed to changing the concept of public space in the nighttime and were even followed by some to reduce crime). Whaling shaped industrial manufacturing and commerce into an industry driven by exploitation and mass slaughter. Whale oil initiated automotive speed up, repetitive test-based workflow and expanded working week. It conditioned and transformed the natural environment of numerous enterprises, which, thanks to it, drove faster through manufacturing schedules. Humpback whale oil was used in various industrial processes in agriculture, including glazing for California-friendly trees and French wines (Giggs 2021, 43). This gives weight to the underestimated role that non-human animals have played in shaping development in human society. Just as the use

of horses on a battlefield determined future power relations among nations, the whales' role in shaping our past society is undoubtedly underestimated. Similarly, when considering the gravity of their possible disappearance from the world ecosystem, the consequences are undoubtedly belittled.

The right whale, the rarest whale in the ocean, hunted nearly into extinction to (literally) fuel the colonial project. Blubber and light. Used to be a right whale could breathe for a century. Now that never happens. They rarely live five years without scars from boat propellers, rope wounds from tangled commerce. And it's not necessary. Boats could shift or slow their paths quite easily. You know what is necessary? Breath (Gumbs, 26)

In the same period, Sperm whales were pursued for a different type of fat found not in their blubber but within their heads: Spermaceti. This is a form of natural wax, a high-grade, long burning, and non-corrosive substance valued for use in industrial machinery (such as looms and train guns), most notably used as an illuminant. Spermaceti produced such superior candles that New Bedford, the epicentre of sperm whale hunting, became known as 'the city that lit the world'—a title reflective of its crucial role in the global whaling industry. From 1900 to 1999, an estimated 3 million cetaceans were killed and removed from the world's ocean—more whales than had been holed in all previous centuries. Scientists estimate that the total biomass of baleen whales found in the sea surrounding Antarctica was reduced by 85% (Giggs, 44).

Yesterday I learned that the breathing of whales is as crucial to our own breathing and the carbon cycle of the planet as are the forests of the world. Researchers say, if whales returned to their pre-commercial whaling numbers, their gigantic breathing would store as much carbon as 110,000 hectares of forest, or a forest the size of Rocky Mountain National Park (Gumbs, 26)

The presence or absence of whales in the sea continues to shape carbon dioxide levels. The removal of so much whale mass from ocean ecosystems and the implications of whales into chains of terrestrial, human consumption is reported to have an indirect but palpable effect on the chemical composition of the atmosphere; a century of whaling is comparable to the burning of more than seventy million acres of forest. Researchers have even projected that an increased number of whales could help offset a measurable quantity of emissions. Whales function as nutrient 'pumps' in the sea by feeding at depth on squid and krill and then realising faecal plumes at a shallower level. In this way, large whales move great volumes of organic matter from unstirred or slow-moving lower waters up to the more rapidly mixing photic layers. Whale manure proves a vital catalyst for accelerating plankton abundance. These plankton absorb carbon dioxide and emit oxygen on a planetary scale. This mechanism, the circulation of plankton, is thought to account for the absorption and displacement of roughly half the carbon dioxide produced by burning fossil fuels (Giggs, 66).

A study by the Institute for Capacity Development in the International Monetary Fund found that increasing plankton productivity by just 1% could have the same effect as the sudden appearance of two billion mature trees (Chami and Ralph, 2019).

What idea alive inside of you will outlive you? What can each of us kindle that will go on? After we're done, who was only ever themselves? The way non-life is becoming life is with microbiota.

Could we learn to love the humpback whale beyond its marketable mythology and love ourselves beyond what capitalism tells us is valuable about being us? Marine mammal mentorship offers us the chance for presence as celebration, as survival and its excess, as more than we even know how to love about ourselves and each other. (Gumbs, 2020, 57)

In 1960, whales became the planet's most valuable animal, with an estimated worth of 30 million U.S. dollars at that time, comparable to 2060 million U.S. dollars today (Giggs, 45). In 1967, commercial whaling was at its peak, with more than seventy thousand whales killed each year (Mustill 2023, 23). In that period, Roger Payne, biologist and documentarist, was making a film for BBC about a community around Monterey Bay and how they lived and interacted with whales there. He spent months in his boat looking and listening to the whales. Whales were recorded more completely, more intimately, and more consistently than they had ever been before. They were singing all day and night all through the winter. He soon realised that that was a vivid example of a performed and extraordinary shift across biology. In addition, new sonar technologies were developing during the Cold War time, giving his team more information and allowing them to analyse data faster, bringing Roger and his team closer to the fantastic beasts they later shared with the world.

“If this is a humpback whale, it will speak to the world as no other voice has ever spoken to the world” (Payne in Mustill, 23). According to Payne, part of the problem with whales’ (lack of) protection was that people's only connection with them was through the whaling industry. Payne had been confident from the start that if other people heard Song, they would think differently about whales; they would care. In 1970, before he even published his scientific findings in science, he wrote an album of the best recordings of songs of humpback whales. It sold 125,000 copies and went multi-platinum.

In 1971, the first of two Voyager Golden Records spaces was launched. This spacecraft is a gold-plated vinyl containing significant ‘pieces’ of human culture (although, here, one would have to question which culture they represent) sent into space to ‘explain’ our features to possible extraterrestrials. The latter included photographs, diagrams and audio recordings that retained representatives (for Americans) and even contained a message from American President Jimmy Carter. The record is an electric mix, the sounds of waves breaking, photographs of humans sitting, food, engravings of our anatomy, and a pictorial representation of how we reproduce. They were created in 55 languages.

After Payne's records, the humpback sounds were included in the Golden Globe.

"I think it's for us. That's my feeling. If Whales could give us an understanding of the world and of an empathy toward other species, then it will be the most important lesson we can learn. If we are to hear any future at all, we must somehow show that what we do is preserve the rest of Life on Earth. Because without, we want to make it." (Payne in Mustill, 33)

For Roger Payne, demonstrating to people worldwide how to rise with whales was a pivotal step towards a cultural transformation vital for our survival—a way for humankind to comprehend its interconnectedness and wanton course. *Sound of The Humpback Whales* has been one of the most successful rescue operations in history; in 1972, the United States passed the Marine Mammal Protection Act, which prohibited the hunting or killing of whales in the US, water, and import and export of their products. The International Whaling Commission went from creating quarters for Wales to closing it down, all hunting. Finally, in 1982, a moratorium on commercial whaling was voted in. Payne willed the song with great power to save the whales, appealing to our emotion and empathy, not to reason. The documentarist gave the whale its voice in our culture and this individual human decision. He is one of the reasons there are still whales. Thanks to the efforts of Payne and his colleagues and millions of people who protested and forced the nation to enshrine protections of wits into law, many populations of whales around war today are rebounding and expanding. This counterpoints the dangerous narrative of innate human destructiveness, which leads to apathy. It shows how we can change, and life can recover (Mustill, 29).

Praise the humpback whales' PR person for making cetaceans relatable to the landed inhumane. The singing breaching whale on most of the posters. How did the humpback become the most studied whale? One thing that helps, when those who are studying you are capitalists, is that humpback whales are easy to identify as individuals because of the markings on their tails. And the story is that humpback whales are pretty solitary creatures, except for at mating time, and even then they meet in small groups. Two years ago, however, off the coast of South Africa, an unprecedented (as far as you know) gathering of hundreds of young humpback whales stumped scientists. What were they doing? (Gumbs, 60)

Edward Sapir, who studied human linguistics, drew a parallel with Whale Song' by describing how human languages change over time: "Language moves down time in a current of its own making. It has a drift. Every word, every grammatical element, every location, and every sound accent is a slowly changing configuration" (Sapir in Mustill 2023, 24). It was not just the humpback that sang; other whales, such as blue whales in the Indian Ocean, did so, and their song seemed much more straightforward. Bowhead whales can live for over two centuries and sing songs like jazz. Sperm whales produce short, stereotypical patterns of clicks known as codas. These are often used in social contexts and during the beginning and end of foraging dives.

The coda repertoire of individual whales is primarily shared among members of social units, although some coda types appear to contain individually specific information. Unit coda repertoires seem temporally stable (Rendell et al. 2019, 1-6). Most animal vocalisations are linear, meaning they do not possess nested hierarchies in their structure, while in the Pacific, sperm whale social units can be grouped into vocal clans based on the most common coda types in their repertoires.

In addition to being a biologist, Roger Payne, a cellist, believed that the closest comparison to the calls of whales was music, so he referred to them as songs. A humpback whale produces a series of beautiful and varied sounds lasting between seven and thirty minutes, repeating the same sequence with remarkable precision. Roger and his fellow researchers observed that only the bull humpback vocalised. They hang vertically, motionless, in the water, singing complete songs one after the other. After several songs, they return to the surface to inhale (whales do not breathe spontaneously, meaning they must come to the surface to do so) and then sink again to continue their calls. Typically, they do not interrupt the song to breathe until they reach a specific theme, but regardless of where they breathe, they tuck their breath in between three notes so as not to disrupt the performance of the song, just as humans do when we sing. Moreover, if uninterrupted, such song bouts can last many hours—sometimes even days. In creating their song, they employ musical methods similar to those humans use in our creations; for instance, humpback whales incorporate percussive and tonal sounds in approximately the same ratio as we do in several of our musical traditions. A member of Roger's lab, Linda Guinee, and Katy Payne co-discovered that whales even use rhyme. When asked why they do so, they answered that whales might employ rhyme for the same reason the ancient Greeks and bards used it in their epic poems—to assist in remembering what comes next in a long song (Giggs, 69).

A whale does not exhale as a human does when speaking; its jaws do not swing open; however loud and reverberant a whale is, it has no vocal cords, and its voice is not projected out between lips shaped by their tongues. Instead, air cycles from within the red sacs of its lungs up towards the whale's dark head, then back and forth, vibrating across a U-shaped ridge of cartilage, which also forms an aperture into a laryngeal pouch that the whale contracts and expands, changing its resonance. A whale's body is its speaker (Mustill 2023, 78). A foetal whale in the womb is washed with the sluicing soundwaves of its mother's vocalisation, though it cannot yet reply in its airless state. As an acoustic object inside the maternal whale, the growing calf changes her sounds in the way attempting to talk with a mouthful garbles our speech, a symptom of late pregnancy, then is a shift in the timbre of the maternal whale's voice (Giggs, 193-198). Additionally, an intimate and discreet, almost whispered form of communication between calves and their mothers does not attract the attention of predators (Intini, 2017).

The song of humpback whales, *Megaptera novaeangliae*, can change very rapidly, with complete population-level song replacement occurring approximately every two years (Noad et al. 2000).

In sperm whales, previous studies of geographical variation in coda output have uncovered a weak pattern that is overlaid and dominated by what we now recognise as clan structure. The observed variation, therefore, represents a geographical form of clan ‘accent’ and suggests that the variations described here may reflect alterations in coda output based on local conditions. Whether local ‘accents’ are permanent or facultative, this geographical variation is improbable to manifest as a direct acoustic adaptation to local sound propagation conditions, a phenomenon referred to as ‘habitat matching’ in birds, considering the structural homogeneity of the sperm whale’s deep ocean habitat. These vocalisations are regarded as social in nature. Sperm whale populations may be organised more along cultural lines than geographical ones, with clan-specific vocalisations providing a crucial sense of identity for their survival and reproduction. Hal Whitehead posits that culture is also part of cetaceans' repertoire of evolutionary mechanisms (Rendell, Luke et al. 2005, 225-31).

In whale culture, the sexes lead markedly different lives. Males depart from their mothers at approximately age 10 and gradually migrate to colder waters, growing considerably larger. They form ephemeral “bachelor groups” but are often observed alone as they mature and become more prominent. In their late 20s, they return periodically to the tropical and subtropical habitats of the females and juveniles to mate. The fundamental level of the social structure of female sperm whales is the social unit, consisting of around 10 females and immatures that travel together. These units form temporary groups with other units for days, apparently exclusively with units from the same cultural clan (Whitehead 2003, 110-115). Mother sperm whale leaves their calves communally guarded and nourished by other whales while they dive deep to hunt for a giant squid. When threatened, they team up to ward off predators, forming a circle with their heads on the inside and their tails facing outwards as weapons; young, vulnerable, injured whales are protected within this margarine. According to Luke Rendell, a whale biologist, there is evidence that sperm whales even care for other adults, providing food for those less able to hunt. In addition, humpback whales also have ‘best friends’. Female humpback whales form such strong bonds of friendship that they can withstand oceanic distances and come back to life again after some time: Canadian scientists from the Mingan Island Cetacean Study group discovered this after 16 years of observation. The friends - almost all females and usually of the same age - meet up yearly after the mating and migration season, recognising each other among many other individuals. Those who establish friendly bonds are facilitated in finding food and tend to have more healthy pups. Before the discovery, these animals were considered unsociable (Ramp 2010, 145).

This is my prayer. May anyone who seeks to mention you be called to learn the language of those who first loved you. May you study the pink of yourself. Know yourself riverine and coast. May you taste the fresh and the saltwater of yourself and know what only you can know. (Gumbs, 29)

Thinking of whales passing information to one another in their cultures, I wonder what they might say and how long those whales' cultures might have existed.

I think of whaling and how, even if some whales survived and populations rebounded, what of their cultures is gone? I'm reminded of the colonial extermination of Indigenous people, who had no writing and writing their cultures off – despite their spoken histories, which had been passed down for thousands of years since before colonial history began. Since the cultures that colonist encountered didn't give a beginning to their own, they were invisible to them and needed to be cancelled. The cultures of both whales and people are fragile; they can be lost (Mustill, 70).

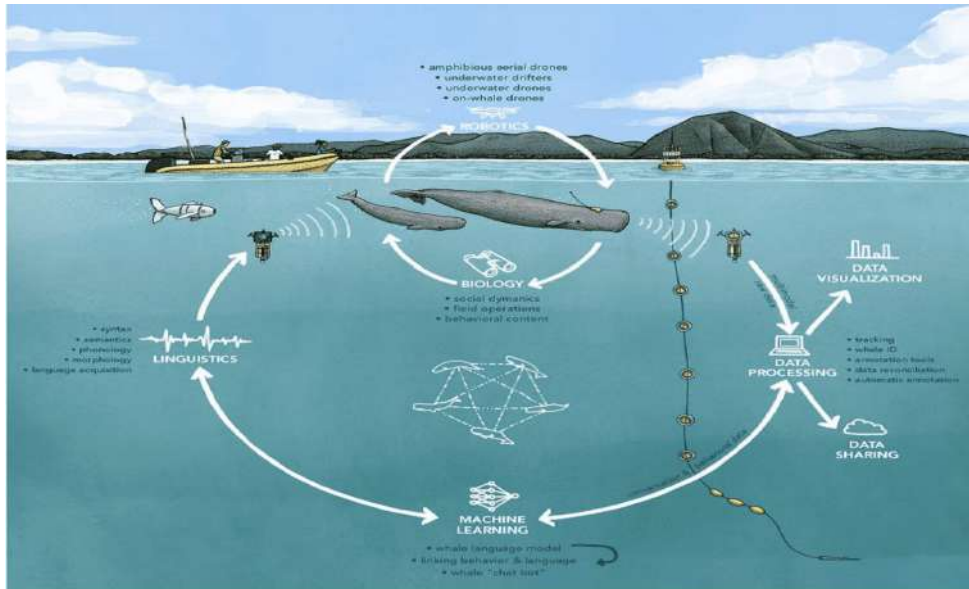
That day on the shoreline, the poet Kathy Engel told me she had never seen a whale in all her sixty years of growing up at that beach until just this summer. Did you call them with your writing? She asked me online. Yes. I have been calling you forever. With my blood and with my breathing. I remember what you gave us, which is everything. Light, home, and each other. Love, warmth, and ourselves. If I breathe, I sing your name. I can only breathe because of you. Do you have a century more of breath? And if not, what do I have? (Gumbs,26)

There are many reasons why whales are increasingly washing up on our shores. They take injuries and become sick naturally due to encounters with debris and plastic in the ocean. Still others appear to have been struck by vessels or caught fatally in fishing nets. Noise from the shipping and water industry can be fatal for cetaceans; a sonar pulse nearby could be like a sound bomb. Mass strandings of various species of whales, dolphins, and porpoises have been recorded, including incidents involving hundreds of animals. Some bodies show damage to their hearing systems, while others seem to have suffered from decompression sickness. A recent study found that beaked whales are rendered disoriented by specific sonar frequencies. Their hearts can malfunction, incapacitating them with pain, which leads them to wash ashore and die. They are literally scared to death. Some are contaminated with heavy metals and treated as toxic waste. Others have large amounts of plastic in their stomachs (Jepson et al 2003, 575-76)

I will say once upon a time there was a huge and quiet swimmer, a plant-based rough-skinned listener, a fat and graceful mammal. And then I will be quiet, so I can hear you breathing. And then I will be breathing, and you'll remind me, do not rush. And the time in me will hush. And then we will be listening for real (Gumbs,13)

Founded in 2020, CETI is the most advanced technology for listening to whales. This collaborative research group focused on decoding the language of whales emerged from these questions: What if we could listen to and understand another species? What would occur if we could comprehend what other animals are communicating? What would they express? (CETI website).

CETI is a listening project that employs advanced machine learning and robotics to decipher what sperm whales are conveying. The scientists, led by Pratyusha Sharma, have even detailed the entire budget using the phonetic alphabet. The first phase of its functioning involves constructing a unique large-scale acoustic and behavioural data set to train CETI's AI technology to observe whale communication in context and to translate whale speech.



The second phase of the process focuses on monitoring, during which the movements and sounds of sperm whales are recorded using aerial drones, small high-tech suction-cup-attached computers, hundreds of synced underwater microphones and swimming robots. The team used AI to separate the voices of different Whales and to track their vocalisation dynamics. They found it dwells and appeared to take turns talking. As we do, rather than chorusing, listen to what each other is saying before responding. Furthermore, CETI also believes they may have decoded the first sperm whale vote. The workers signal that the whales used to initiate the dive. In addition, uses a 360-degree approach made possible by an extensive cross-disciplinary team, an initial focus on sperm whales, and the design and implementation of cutting-edge technology. CETI's team shared the goal of applying technology to amplify the magic of our natural world, hoping that findings will show that technology can bring us closer to nature. Research is conducted on the Eastern Caribbean Island of Dominica, known as The Nature Island. A core aspect of CETI's mission is to ensure that new research and knowledge about sperm whales draws greater attention to the Dominican-led marine industry and bolsters Dominica's conservation leadership in the Caribbean. They also collaborate with local schools and organisations and complete a final project as part of the programme (CETI website).

4.6 For Indigenous people from Cook Island, Whales and Dolphins are Legal People

Recent news is that, through a new treaty established by Pacific Indigenous leaders from the Cook Islands, French Polynesia, New Zealand (Aotearoa), and Tonga, whales and dolphins are now acknowledged as “legal persons.”

As Doornbos and Whitehead reported in *The Conversation* (15.04.2024), the Whakaputanga Moana, meaning the ocean declaration of Māori, advocates for these animals' holistic protection and survival. However, according to Mere Takoko, vice president of Conservation International Aotearoa, this treaty alone will not eliminate illegal activities or harm directed at cetaceans (whales and dolphins).

When Aotearoa's Whanganui River was granted the status of a living person, harming the tribe or the river was regarded legally as the same act. If the Whakaputanga Moana adopts a similar stance, Pacific nations could impose significant penalties against violators, aligning with their local criminal or customary justice procedures. Nevertheless, the specific protections and potential consequences for violations remain unclear.

Many whale and dolphin populations either inhabit the Pacific Islands' waters during certain times of the year or migrate through them. These include endangered blue whales, vulnerable sperm whales, and endangered Hector's dolphins.

Cetaceans face various direct and indirect threats due to human actions. Historical commercial whaling caused devastating population declines. Even though the International Whaling Commission banned whaling in 1986, it persists in some areas.

Ship strikes are considered a leading cause of whale fatalities. Granting personhood to whales and dolphins might result in more effective mitigation strategies, including implementing alternative shipping routes and decreasing vessel speeds, with the objective of helping prevent certain human-related threats to cetaceans' fatalities.

Given the significance of whales and dolphins to many Pacific communities, their spiritual beliefs, and customs, this treaty marks another pivotal moment for Indigenous self-determination. Indigenous peoples are reclaiming authority over their lands and waters. As Tikanga Māori (Māori customary law) gains influence within Aotearoa's legal framework, this treaty could represent a shift in environmental policy across the Pacific.

In 2010, the Declaration of Rights for Cetaceans stated that whales and dolphins should not be held captive. Then, in 2013, India labelled dolphins as non-human persons to prevent their capture and use for commercial entertainment, such as in marine parks. This created a new range of rights for dolphins, though not as extensive as those for humans, and did not extend to all cetaceans. In contrast, the new Pacific treaty grants explicit and more comprehensive rights for numerous cetaceans in the region, enhancing protections for those used in entertainment.

Whakaputanga Moana provides whales and dolphins with transnational protection that goes beyond the declaration made by India. This international support, embedded in the declaration, enhances protection against crimes targeting cetaceans by involving numerous criminal justice systems and creating various enforcement pathways.

Despite these encouraging developments, there remains no international standard on animal rights. Past attempts, such as the proposed universal declaration of the rights of animals at UNESCO in 1978, have stalled due to a lack of political will and differing opinions on the implications of such rights for various species.

Without an international standard, countries have differing policies regarding marine wildlife protection, often leading to significant disparities. Cetaceans' migratory nature presents additional challenges for conservation. Long migrations can expose them to dangers from jurisdictions with weaker protections than those in the Pacific Islands, complicating overall cetacean conservation efforts.

One in five species protected under the UN's convention on migratory species faces the threat of extinction. Effective protection for cetaceans requires international collaboration and enforcement to address these global challenges. Any steps taken to better animal welfare and acknowledge Indigenous justice are worth celebrating. The granting of personhood to cetaceans is an important step in the struggle for Indigenous justice and species rights. It underlines the importance of Indigenous communities in the struggle for environmental justice and the protection of species that are important to their cultural identity. Global organisations and governments should take this treaty as an opportunity to enhance the protection of aquatic life, respect Indigenous voices, and give them full support. Unfortunately, Indigenous perspectives are often marginalized in environmental dialogues, raising the risk that some institutions may overlook this treaty. Nonetheless, the signing of this treaty is a significant advancement. It highlights cetaceans' challenges while establishing a platform for enhanced species and social justice protections (Doornbos and Whitehead 2025).

4.7 Conclusion

In this chapter, the combination of scientific (Whitehead et al.), literary (Mustill and Giggs), and poetic (Gumbs) texts attempted to shed light on the many common stories that human animals share with other sister and brother species. This chapter seeks to bring out non-human animals' individuality and agency and create a channel for the development of interspecies empathy. In keeping with the themes explored in previous chapters, the communicative aspects of the species described have been particularly highlighted by including some scientific reports.

Following the example of Alexis Pauline Gumbs and recognizing that various forms of oppression stem from the same autocratic will to suppress any divergence from the 'standard' model it upholds, in this text the oppression and violence against non-human animals in connection with issues such as Black feminism, colonial bio-politics, and migration have been examined. As Timeto reminds us:

Gender, race and species must be reconstructed together in a key that is not extensionalist from the human to include the non-human but reconstructive -in terms of ecological rather than analogical connections- between differences that relate to each other outside of both symbolic and material relations of domination. (Timeto, 2024, 78)

Particularly, the discussion on Dolphins and their interspecies collaboration skills was accompanied by a reflection on displaced people and the role of memory in their experience of estrangement from their homelands. Similarly, the matrilineal communities of Orcas introduced themes of Black feminism, emphasizing sisterhood as a collective force against violence, loneliness, and isolation. Finally, Humpback Whales, with their complex systems of 'code' and 'clicks', opened the discussion on colonialism and the erasure of cultures—both their own and that of Indigenous peoples.

In conclusion, recent legal developments concerning whales and dolphins have been discussed; recognizing non-human animals within legal frameworks marks a crucial step toward transforming our relationship with them and taking concrete action against their hunting and exploitation.

To suppress 'our animality' is to suppress 'our humanity,' as our species has continuously developed through its gaze upon the animal world. Our society and self-centeredness have suppressed this gaze and plugged our ears, but it is time to step aside. In this case, particularly as the proposed bill came from Indigenous people, its success further confirms the cohesion necessary for humans and nonhumans to assert their individuality in the oppressive systems that have denied them.

What we need to try, as humanity rebuilds better relationships, is hope and a propensity for a mutual approach to care. It is both a conviction and a hope that these qualities are more easily attainable if (without diminishing or denying the extent of the rampant destruction our species inflicts on the earth's ecosystem) we can find the strength to regain our gaze and our ability to listen to those systems that have not yet been completely corrupted. Citing one of my favourite Italian writers, Italo Calvino, we must seek to know who and what, in the midst of hell, is not hell and make it last, giving it space so that it can be recognised, enabling us to identify alternatives that can multiply and disperse in every corner of asphalt and cement.

The clear to release life and you might ask yourself how I should care for that which I don't know. That which I have never met. Do you care for well? Could you act on behalf of the well-being? Hopeful follows from being useful. Hope is fellowship. Hope is in the doing. We may be the only species capable of imagining a future roped off the wonder of encountering other species. This knowledge in Gent give us calls to start. (Giggs, 271)

Chapter 4. References

- Baird, Robin W. 2000. *The OrcasWhale: Foraging Specializations and Group Hunting*. Seattle: University of Washington Press.
- Bhugra, Dinesh, e Matthew A. Becker. 2015. "Migration, Cultural Bereavement and Cultural Identity." *Society for Marine Mammalogy*. <https://doi.org/10.1111/mms.12218>.
- Boyd, Ian L. 2003. "Review: Culture Among Sperm Whales? Reviewed Work(s): Sperm Whales: Social Evolution in the Ocean by Hal Whitehead." *Science* 302 (5647): 990. <https://www.jstor.org/stable/3835647>.
- Bruck, Jason N. 2013. "Decades-Long Social Memory in Bottlenose Dolphins." *Proceedings of the Royal Society B* 280 (20131726). <https://doi.org/10.1098/rspb.2013.1726>.
- Cantor, Mauricio, e Hal Whitehead. 2015. "How Does Social Behavior Differ Among Sperm Whale Clans?" *Marine Mammal Science*. <https://doi.org/10.1111/mms.12218>.
- Chami, Ralph, et al. 2019. "Nature's Solution to Climate Change." *Finance & Development*. <https://www.imf.org/en/Publications/fandd/issues/2019/12/natures-solution-to-climate-change-chami>.
- Christal, J., H. Whitehead, e L. Rendell. 1998. "Social Structure of Sperm Whales: New Evidence of Stability and Change." *Animal Behaviour* 55: 1337–1347.
- Cowperthwaite, Gabriela, dir. 2013. *Blackfish*. 1h 23m. United States: Magnolia Pictures.
- Davies, James R., Elias Garcia-Pelegrin, Luigi Baciadonna, Cristina Pilenga, Livio Favaro, and Nicola S. Clayton. 2022. "Episodic-like Memory in Common Bottlenose Dolphins." *Animal Cognition* 25 (1): 113–127. <https://pubmed.ncbi.nlm.nih.gov/35882234/>
- Federici, Silvia. 2018. *Re-enchanting the World: Feminism and the Politics of the Commons*. Oakland, CA: PM Press.
- Foote, Andrew D., et al. 2009. "Cultural Transmission of Vocal Repertoires in OrcasWhales." *Nature Communications* 1: 1–8.
- Huggan, Graham. 2018. *Colonialism, Culture, Whales: The Cetacean Quartet*. London: Bloomsbury Academic.
- Gero, Shane, et al. 2009. "Who Cares? Between-Group Variation in Alloparental Caregiving in Sperm Whales." *Behavioral Ecology* 20 (4): 838–843.
- Giggs, Rebecca. 2020. *Fathoms: The World in the Whale*. New York: Simon & Schuster.

Gumbs, Alexis Pauline. 2020. *Undrowned: Black Feminist Lessons from Marine Mammals*. Chico, CA: AK Press

Jepson, P. D., et al. 2003. "Gas-bubble Lesions in Stranded Cetaceans: Was Sonar Responsible for a Spate of Whale Deaths after an Atlantic Military Exercise?" *Nature* 425 (6958): 575–76. <https://doi.org/10.1038/425575a>.

MacLellan, Shannon. 2025. "Whales and Dolphins Now Have Legal Personhood in the Pacific, but One Treaty Won't Be Enough to Protect Them." *The Conversation*, January 30, 2025. <https://theconversation.com/whales-and-dolphins-now-have-legal-personhood-in-the-pacific-but-one-treaty-wont-be-enough-to-protect-them-227615>.

Marino, Lori, et al. 2013. "Cetaceans Have Complex Brains for Complex Cognition." *PLOS Biology* 11 (7): e1001525.

Mesnick, S. L. 2001. "Genetic Relatedness and Social Organization of Sperm Whales." *Behavioral Ecology* 12 (3): 429–433.

Mustill, Tom. 2022. *How to Speak Whale: A Voyage into the Future of Animal Communication*. New York: Grand Central Publishing.

NPR. 2024. "Whales and Dolphins Now Have Legal Personhood in the Pacific – but One Treaty Won't Be Enough to Protect Them." *NPR*, April 3, 2024. <https://www.npr.org/2024/04/03/1242451885/whale-personhood-climate-change-polynesia-maori-new-zealand>.

Ortega-Ortiz, J. G., et al. 2009. "Orcas Whale Interactions with Marine Mammals in the North Pacific." *Marine Mammal Science* 27 (3): 595–605.

Pearson, Heidi, Matthew Savoca, Daniel Costa, Michael Lomas, Renato Molina, A. Pershing, Craig Smith, Juan Villaseñor-Derbez, Stephen Wing, e Joe Roman. 2022. "Whales in the Carbon Cycle: Can Recovery Remove Carbon Dioxide?" *Trends in Ecology & Evolution* 38. <https://doi.org/10.1016/j.tree.2022.10.012>.

Pitman, Robert L., e Paul Ensor. 2003. "Three Forms of Orcas Whales in Antarctic Waters." *Journal of Cetacean Research and Management* 5: 131–139.

Pulkkinen, Levi. 2018. "Orca Mother Grieving for Dead Calf Inspires Push to Save Dying Pods." *The Guardian*, August 8, 2018. <https://www.theguardian.com/us-news/2018/aug/08/orca-mother-grieving-dead-calf-push-save-dying-pods>.

Quashie, Kevin. 2012. "The Sovereignty of Quiet." *Multitudes* 72 (3): 146-153. <https://doi.org/10.3917/mult.072.0146>.

- Ramp, Christian, et al. 2010. "Age-Related Multi-Year Associations in Female Humpback Whales (Megaptera Novaeangliae)." *Behavioral Ecology and Sociobiology* 64 (6): 1045–57. <https://doi.org/10.1007/s00265-010-0952-2>.
- Rendell, Luke, et al. 2019. "Causes and Consequences of Female Centrality in Cetacean Societies." *Philosophical Transactions: Biological Sciences* 374 (1780): 1–13. <https://www.jstor.org/stable/10.2307/2691674>.
- Rendell, Luke, et al. 2005. "Vocal Clans in Sperm Whales (Physeter Macrocephalus)." *Proceedings of the Royal Society B: Biological Sciences* 272 (1578): 225–31. <https://doi.org/10.1098/rspb.2004.3002>.
- Sayigh, Laela S., et al. 2023. "Bottlenose Dolphin Mothers Modify Signature Whistles in the Presence of Their Own Calves." *Proceedings of the National Academy of Sciences* 120 (27): e2300262120. <https://doi.org/10.1073/pnas.2300262120>.
- Taylor, Henry. 2019. "Whales, Fish and Alaskan Bears: Interest-Relative Taxonomy and Kind Pluralism in Biology." *Journal of Theoretical Biology*.
- Whitehead, Hal. 1996. "Babysitting, Dive Synchrony, and Indications of Alloparental Care in Sperm Whales." *Behavioral Ecology and Sociobiology* 38: 237–244.
- Whitehead, Hal. 2020. "Cultural Specialization and Genetic Diversity: Orcas Whales and Beyond." *Journal of Theoretical Biology*.
- Whitehead, Hal, et al. "Cetaceans Have Complex Brains for Complex Cognition." *PLOS Biology*.
- Whitehead, Hal, et al. 2012. "Multilevel Societies of Female Sperm Whales (Physeter Macrocephalus) in the Atlantic and Pacific: Why Are They So Different?" *International Journal of Primatology* 33 (5): 1142–1164. <https://doi.org/10.1007/s10764-012-9598-z>.
- Worldrise. 2020. "*Nel mondo dei cetacei: l'ecolocalizzazione*." Accessed February 17, 2025. <https://worldrise.org/it/nel-mondo-dei-cetacei-lecolocalizzazione/>.
- Yurk, H., et al. 2002. "Cultural Transmission within Matrilineal Clans of Resident Orcas Whales." *Animal Behaviour* 63: 1103–1119.

Chapter 5: Multispecies Communication through Cinema and Art Forms

This chapter will analyse how art formats could be meaningful in making non-human animals' voices heard and, as a consequence, deconstructing and/or giving an alternative to an anthropocentric attitude. Through their work, D'Anolfi D'Anolfi, Martina Parenti, and Casas Casas (2024) provide us with the opportunity to cross the rigid boundaries between entities (human, non-human, biotic, abiotic) and to grasp life in a broader sense. Both start from a common word: bestiaries, whose late medieval production can be regarded as a farewell, or a goodbye of human interest towards other creatures, at least since Linnaeus came. This way, the artists re-examine this meaning, this practice to give new centrality to the species included therein. I decided to propose art form as a preferential way of approaching non-human communication as I fully believe in the unifying social power of art as a means through which to abandon oneself, one's centrality, one's prejudices and let oneself to the perspective of others. I also trust in the communicative power of art as a direct language, sensory communication, perceptive, and universal. This chapter will start with an overview of Bestiaries, highlighting their ancient meaning and functionality; in the second part, interviews with D'Anolfi and Casas will be reported to have a deeper insight into the artists' works. D'Anolfi and Parenti's film could be intended as the summarisation of humans' gazes on other than human animals, as reported through the cinema's evolution lens. While Casas' work suggests the sound and vibration perspective as common path for approaching the more than human world.

5.1 Medieval Bestiaries

In the Middle Ages, writes Michel Pastoreau, bestiaries did not belong to the field of natural history, but to that of cultural history (Pastoreau in Timeto, 2020, 25). The earliest known bestiary of the Western world is the *Physiologos*, written between the 2nd and 4th centuries AD by an anonymous Greek author and translated into Latin and other languages, it probably appeared in Alexandrian circles, collects a series of popular, allegorical, religious and moralising interpretations of the animals mentioned in the Greek translation of the Bible. Nevertheless, it is thanks to the *Aberdeen Bestiary* (XII century) that this format really spread starting from the 12th century onwards.

The term 'bestiarium' has been derived from the opening sentence of a chapter of the *Etymologiae of Isidore of Seville*: "Bestiarum vocabulum proprie convenit leonibus, pardis" (Mc Culloch 1962, 25)

And constitutes typical, albeit peculiar, example of the dissemination of naturalistic knowledge from Antiquity, including the related repertoire of images reproduced in illustrative cycles.

Moreover, the bestiaries constituted a textual and pictorial tradition of their own concerning the genre of the 'wonders of the East' or to the *Liber monstrous*, both texts widespread in the early Middle Ages; the passages dedicated to monsters and monstrous races, included in some 13th-century manuscripts, are, in fact, taken from Isidore of Seville.

By following in the footsteps of an animal, it is therefore possible, in the *Bestiaries* to penetrate the imaginary and emotional life of the ancients: investigating how man constructs an animal can tell us a great deal about how human beings construct themselves and their relations with the world around them (Franco 2003, 81).

In this textual form, other than human animals were grouped according to criteria profoundly different from ours, distinguishing, in most cases, five large families: quadrupeds, birds, fish, snakes, and worms. Each appears as the image of another thing that corresponds to it on a higher plane of which it is the symbol. In this context, we can comprehend the well-known Foucauldian idea that the Enlightenment period represents the merging of various medieval symbolic narratives into two main stories —the Bible and science; this is because science and written texts gradually replace the broader semiotic meanings of the world with their more defined interpretations.

Thus, *Bestiaries* are proposed as true guides to understanding the hidden meaning of the animal kingdom and useful tools for the exegesis of the numerous zoological images found in sacred texts: books to be read and interpreted with the same techniques used for the Scriptures, where the immediate and literal sense also conveys moral and allegorical meanings. (Pastoureau, 2012,6)

All this gave rise to a complex animal world, within which two very precise and very different tendencies could be recognised: on the one hand, the scientific and rationalising one initiated by Aristotle, which consisted of ordering animals into categories, studying them by observing their habits and dissecting their bodies; on the other, the one influenced by Gnostic doctrines, according to which the cosmos was characterised by occult relations linking the stars, animals, plants and stones. On the other hand, as we have seen, these compilations, which set out to describe the different zoological species, are not natural history manuals in the common sense of the term but works that speak of the beasts to talk of Christ, the Virgin, the saints, and even the devil and demons. The whole science of bestiaries, herbaria and lapidaries would have originated from principles of this kind, works in which scientific-rational observations, philosophical visions and magical arguments would be united with ethical-allegorical elements taken from the Christian Scriptures and with empirical data taken from the various folk traditions (Cardini 1986, 52)

In essence, contemplating nature and its images constitutes a lesson in Christian morality when human behaviour is perceived in analogy with other than human animal behaviour. The fact that Christian

doctrine had to ‘impose itself’ on a largely illiterate population highlights the need for the latter to use symbols for communication. It is well to remember in this regard that there is a letter from Saint Polo to Romans in which it is assumed that all existing living beings, at the stage with humans, were ‘children of God’ and that only later did this exception become exclusive to humanity.

Since man has consistently recognised in non-human animals abilities that do not belong to him (developed sense of smell, night vision, etc.), they were conceived in the Middle Ages as a bridge between the real and the non-real, between the known and the unknown, to which the curious person had to be able to look to expand his knowledge. According to Berger, cattle had magical, sometimes sacrificial functions (Berger 1974, 23); the later development of rationalism, however, would sweep away the range of possibilities given to non-human creatures in the Middle Ages and enshrine the supremacy of human cognitive abilities over those of any other species, which is now no longer a mystery, a possibility, but merely an object of translation.

5.2 Bestiari Erbari e Lapidari by Martina Parenti and D’Anolfi D’Anolfi

D’Anolfi is an Italian film director born in Pescara in 1974 and has been collaborating with Martina Parenti, director, producer, and screenwriter since 2007. *Bestiari Erbari e Lapidari* (2024) is the culmination of four years of work, transformed into 203 minutes of cinematic storytelling.

As the title suggests, the docu-film is divided into three acts addressed to respectively three different life forms, *Bestiari: Cinema Invents New Cages* is represented through the reports of Munich’s archive, which has a section on cinema history that collects 150.000 movie films. Among the first subjects in cinematographic recording have been, in fact, animal movement. Thus, the first act appears— as will be better developed after the interview portion— as a collection of human gazes towards the non-human world, reconstructed through images from very different situations: from the video report of the Antarctic expedition to the laboratory images of rats, dogs, and rabbits, to the employment of animals in circuses, and the fur farming of foxes during the Nazi era, all linked by the brutality of human intervention on their bodies. The film act is constructed in three dimensions: the aforementioned, namely the exhumation of the Munich slides by two scientists who comment on them, as interspersed with the second—the images of a vet studio in Milan, representing today's way of perceiving and relating to non-human animals. The third level of the story is diegetic, manifested through the narration of a tale, written in white on a black screen, in which non-human animals are dreaming, finally free to fully live their existence beyond the human-made cages.

The second act, *Erbari: The Cure*, records the season changes in the Pauda Botanic Garden, the oldest botanical garden in the world. The narration is accompanied by the voice of Stefano Mancuso, which reallocates human presence on the planet, arguing about our very little dimension if compared with the longevity and the extraordinary resilience of the vegetable world.

In conclusion, *Lapidari: The Fossils of the Future* examines the production of ‘stumbling blocks’ as a form of memory, from the industrial production of the materials to the artisan laboratory of Gunter Deming, its inventor.

Even in their independence, the acts are elegantly connected through recalls and suggestions that examine the interdependence and communication of the world’s ecosystem in each of its representations. From the perspective of a spectator, we can say that the film exudes a sensationalistic poetic: it offers a delicate and honest tale about life (in the broadest sense) and its cyclicality. The documentary treats each life form with the same care, filmed in all its particularity, and with all the time that this deserves. As mentioned in the first chapter, the report of the Munich archive on animals gives a fascinating insight into human and non-human animal relations through recent history. If, as the director said during the interview, the “cinema has had as function the one-off making the invisible visible,” *Bestiari* makes us part of our own history with honesty, without dulling the harshness of the confrontation. As the two scientists present in the first act noted, the term ‘animal’, much like cinema, is understood as a multitude, just as the word ‘cinema’ is intended as a container for films; the term ‘animal’ serves as a collective for all species included therein.

The film also expresses this continuity on the human gaze towards non-human animals; as in the Middle Ages, the operation is always the same, the subjects are always them, it is we (the humans) who have changed over these centuries. We, who nevertheless *‘Have never been modern’*. We have understood this supposed modernity through ‘a work of purification’ that places a sharp discrimination between the natural and the artificial. This is not only the root of colonialism but also ‘the core of the modern paradox’: for at least three centuries, we have been ‘mixing nature and culture’, only to present the finished product through ‘a purification process’ that poses a sharp discrimination between the natural and the artificial (Latour, 1991,7).

The West has sought to separate, as two distinct fields of reality, the realm of nature and the realm of culture - it has sought, tried, and failed without realising it. It has failed because the cruelty of the film's scenes represents, among other things, the cruelty humans have reserved for that part of themselves that they seek to reject with all their might. Quoting Darwin:

We must nevertheless admit, as it seems to me, that man with all his noble qualities still bears in his bodily structure the indelible stamp of his humble origin (Darwin in Berger, 1974, 61)

The indelible stamp, the ‘bestial’ characteristics we have so much guarded against, appear in their ruthless grandeur in the fragments collected by D’Anolfi and Martina. We as humans have only succeeded in constructing a stage that, at least for the duration of the performance, can legitimise our ‘bestiality’ as justified in a broader system. But it is all still there. The separation has not happened, and we have not elevated ourselves. If language was born to ‘tell the first lie,’ as Rousseau said, our societies have developed to make it continuous. What this lie, however, this veil of Maja, prevents us

from seeing is the human destruction that lies beneath the carcasses of all the innocent victims we sacrifice on the altar of our ego. What escapes us, lost in a rush to demarcate our boundaries, is, as Berger says while observing a mother chimpanzee cuddling her cub, “a certain tenderness that has lasted five million years” (Berger 1974, 68).

In this sense, D’Anolfi and Martina’s film allows us, instead of seeing ourselves, locked and tortured in laboratory cages, on fur farms, to see ourselves, for about ninety minutes as long as 60 years.

5.3 Massimo D’Anolfi Interview³

Thank you for allowing this interview. As I anticipated you, I am doing my thesis on non-human animals' language; as Plumwood said, to learn to listen to the world around us, to hear truly, is to unlearn the arrogance of human exceptionalism. Your film, Bestiari, with the collection of the first photograms on non-human subjects, offers a powerful insight into this arrogance. Can you please tell us how the film was born and its idea?

So, the film was born in 2020, during Covid. We presented *Guerra e Pace* at the Venice Film Festival, and a month later, in the middle of the second wave of Covid, the cities were closed, a very dear friend called me because she has a cat that is not well, she takes it to the vet, and when she arrives at the vet, she says “Massimo, I thought of you right away because there are two tigress cubs”. The vet is under the assembly studio here in Milan, so I said, “I’ll be there”.

Two baby tigers were in a vet in Milan, in the city. They were circus tigers, and their mothers, often in captivity from birth, don't want to suckle them, and so the circus people, so as not to let them die, have taken them to the vet. He is a vet who has his tradition with the circus world because he has been a circus vet for 40 years and 50 years. And so, in short, these two little tigers, as soon as they arrived at the vet's, also had an X-ray taken because they felt that beyond the suckling, there was also something wrong with them, and they had lung cancer. So, the tigers stayed at the vet for about a month and a half, where they were nursed and treated. That same day, I asked the vets for permission to film, not knowing yet what I would do with this footage.

And the funny thing is that on that day, there were these tigers that had a very powerful vocal, and so they, even though they were 6-7 days old, I mean there were the dogs, the cats because the clinic was on two floors. They were kept upstairs, downstairs coming in, hearing this very violent roar or the dogs and cats waiting for the operation or waking up from the operation that were there were really terrified; I mean, the cats were literally terrified.

³ The down-reported interview took place in Milan on the 18th of January. After having exposed D’Anolfi to the content of my thesis, I questioned him about the construction of the *Bestiari* act and the human-non-human relationship object of the images.

So, I asked if I could film, and then that day, I realised that there were tigers, cats, dogs, rabbits, hedgehogs, and snakes. In short, I said, “Here is a bestiary.” And so, the idea of the title was born.

If there is a bestiary, there should be an herbarium and a lapidary. So, the first intuition was that, OK, now we have a beautiful title; we must fill it with narrative possibilities. Only COVID had initially limited the project because it was difficult to travel; you couldn't move around, and so the initial project was a herbarium-lapidarium where it was built as a sort of round, so a dynamic in which each element, each kingdom passed the baton to the other, so the animal kingdom to the vegetable kingdom, the vegetable kingdom to the mineral kingdom. The place that somehow encompassed these three worlds was the Natural History Museum, where we have animals, minerals and vegetables with herbarium. So, I started filming there, then I started filming entomologists building dioramas and hunting nights of endangered species to count them every night.

So, for about 6-7 months, I filmed inside the veterinary clinic operations, visits, euthanasia, and the work of building this diorama dedicated to bats in a cave. And then, in 2021 spring of 2021, the Covid situation was still serious. Still, in short, it was starting to loosen up a bit, so the world was starting to open a bit, and after months of shooting, we thought the film could be a bit broader, a bit bigger, restricting it to just the city limited its potential. So, at that point, we thought we could construct a single film to create three *mise-en-scene* devices typical or typical in documentary cinema, i.e., archive film, observation film, and industrial film. Each, however, we had conceived with a form of betrayal. Hence, the archive film was a diegetic archive film, the observation film was a poetic observation film, and the industrial film was a sentimental, emotional industrial film.

And the part, let's say, of the *Bestiaries* right from the start was called the archive because we thought that the first image made not by cinema but by proto-cinema was that of an animal. And so, the idea that we were somehow investigating the relationship between cinema and animals made us think that the archive film should be the Beastarium. At that point, we asked two scholars to write a book or an article on the relationship between cinema and animals. To write this book, we told you that you must search the archives. So, you start a search in the archives, and we start ours. We meet again in a month and show each other the materials. It was a meeting they did not know how to go, they did not know how to use platforms much, so it was a meeting within Zoom, and so we had noticed that I mean, often the images of animals we saw had to do with cages, right? But we had noticed that we were also caged inside these computer screens.

Living in Milan, this is a film that was lucky enough to have had the collaboration of fifteen excellent European film libraries: Life in Museum, the French Film Library, the Imperial War Museum, the Portuguese Film Library, the Prague Film Library, the Germans, in short, the Bologna Film Library, the Milan Film Library. Living in Milan, of course, we could visit the Milan Film Library physically, go to the crossroads, and look at source material in Moviola. Among the first images we encountered

were the absurd one from the early 1900s, of dogs eating rats —the last archive image of bestiaries, and the other— filmed during Mikkelsen’s expedition in 1910, which is the encounter between man and penguin. Moreover, these, let's say, two films from the very beginning we knew had to be there; they were, as it were, a sort of foundation of our project. The complex thing was to organise this journey within a century and a half of cinema.

We didn't want to give a chronological account, partly because we had set ourselves a limit, i.e. we wanted to go up to the sixties, roughly because, as it were, the sixties were the period in which lighter and lighter cameras began to arrive on the market, with the use of 16mm, then in the seventies and eighties video arrived, so there was a multiplication from the point of view of increasingly sophisticated optical images, so these images of animals made with canvases a kilometre away. So, there was this feeling that the more the capacity of technology increased, the more we tried to capture the intimacy —in quotes— of the animals (but at a sidereal distance), the more paradoxically we know the animals, the more we move away from them; there is this almost opposite movement.

And I mean, we were interested in being there in those moments. But we certainly wanted the film to start from the first images of the proto-cinema, in which we filmed the animals to fix their movement, as in the case of the horse, to see if it lifted all four legs off the ground simultaneously or if there was a moment in which one always touched the ground. So this fascination with animal movement at the same time, but trying to stop it, to stop it, posed the first ambiguity, let's say, of the film.

Thank you, D'Anolfi. I, think you made really clear those two aspects: on one side, the fascination with the non-human world, but at the same time, this fascination is immediately repressed in a willingness to dominate it, to stop it somehow; is there something that particularly struck you that maybe you didn't expect when you started filming bestiaries and eventually came out in the film that you...

Yes, it's an image. So, as far as the archives are concerned, the image that shocked me most initially was one of the dogs eating rats precisely because of the gratuitousness of the gesture. Because that's footage from 1904, you don't know who made it, and you don't even understand what it is.

It is a game of cruelty or maybe a scientific experiment, and there I was astonished; I am still astonished today, even because of that magenta tint of the film. Another image that fascinated me is that of the man meeting the penguin because the first time I saw it, I thought: “This is probably the first time that a man and a penguin meet and are filmed” because it was the first expedition to the South Pole with a camera, and so, in short, this ability that is cinema to fix moments both to do with death but also to do with life, because within that encounter or non-encounter there was also an interesting crack, because to me that gait of the man who tries to go towards the penguin is the penguin retreating, in some way there is this game, the frame that contains them, but at a certain point then the penguin towards the end slips out, gets out of the cage of the frame and frees himself in some way.

It was still a meeting, a scientific expedition that still seemed somewhat docile, but then at the same time, in the same years, there is the killing of the bear, the mother bear with the cub, and that, too, is a very powerful image. Another very powerful image is that of Blasetti of the guinea pigs in the fifties with the film on the archives, and then Tembrock, who for twenty years studied a wonderful animal still —if you like— we are a bit more used to the red fox, but that, the red fox, however, who for twenty years enclosed these vaults at the University of Berlin to study their behaviour, filming them, drawing them, photographing them, recording the sounds, making them be born, eating them, stunning them with sounds. I still found it a crazy gesture but, at the same time, interesting, an ambiguity between something that you find attractive and repellent in the same way.

Instead, inside the veterinary clinic, the presence of the tigers was remarkable because they broke the routine. Imagine a veterinary clinic where the lady arrives with her kitten and her little dog, and she hears a mighty roar. She doesn't understand where it's coming from, and everyone is standing around. That sound of the tiger probably made me think that the film could have a soundtrack made only with the sounds and voices of the animals. The film's constructed music is made only with the voices of animals, whales, and owls.

I felt very deeply that this sound aspect for which other than human voices are used to somehow describe the suffering of other species, that is transmitted by the images. The film starts with the sentences: “Bestiari, the cinema invents new cages”, and at the same time, the plot is developed through the cage of the camera for which the only way to escape seems to be suggested by the story that is narrated through the first act, the one about animals dreaming. Can you please tell us something about the story that flows throughout the film and links the different levels of images together? How was it born?

Yes, the third level is that in the beginning, the film was only meant to be a diegetic archive film because two scholars were questioning themselves in front of the material they saw. But then, when we finished the first draft of the edit, we remembered those old shots I had taken inside the veterinary clinic, and I said I wanted to use them because they reconstructed a bit of the path we took to get to this film. At the same time, they are also a kind of counterpoint to the archive images. In addition, they dialogue a lot with those images. All the archives used in the *Bestiaries* are mainly scientific, and therefore, even those shots I had taken in 2020 inside a veterinary clinic were, in any case, a kind of counterpoint to the archive images. So, when this second level was added one night, I wrote a fable. It is precisely that fable that accompanies the film that has become the third level of the narrative because it was a bit like a sort of redemption of the animals, that is like a crack in a film where the animals in the archives see animals used in war, used for scientific films, killed on safaris, used for circus shows...

At the vet's, we see animals that are treated simultaneously. As we said before, it is not an animal that decides to go to the vet; it is an animal that, for a form of good, if we want, even perhaps the selfishness of its human master, is taken either to be sterilised or to be operated on or to be vaccinated within a system that does not belong to its life, probably the one that it would choose for its life.

Therefore, in short, the fable tries to give voice to another animal, to another animal possibility, an animal that dreams, an animal that never opens its eyes, and that tries to imagine new worlds. Then another speech that we made was a bit this thing of the fascination that we have for the animal world and also the impossibility —that Berger speaks of— of a look with the animal world, because precisely the animal inside the cage, so the one with the animal in the zoo is an impossible gaze is an animal that no longer looks us in the eye, or if it does it crosses our gaze, there is an impossibility of dialogue.

In short, there's all the ambiguity of science because clearly, we know that zoos are places of entertainment, but they have also been places of science and knowledge. These places are certainly not natural, but they are places where we cage animals that would live free in the wild at the same time today. A reflection I was making with veterinarians is that the number of tigers in captivity is far greater than that of those free in the wild. So, he also told me that the thing about circuses and zoos is completely anachronistic. Still, at the same time, we consider that when tigers in the wild become extinct one day, a possible genetic heritage of these animals will only be saved with tigers in captivity.

So, he told me that if you take tigers in captivity from a circus of two or three generations if you bring them back to the wild, they die after a few hours if you don't do it with a path, so you can think about putting the bad animals back in the wild. Still, it has to be done with an accompaniment because they are animals that are no longer used to foraging food and are no longer used to open space, so there is an enormous change. I was also very struck by what I learned during the children's time that animals in captivity often refuse to suckle their cubs when they give birth.

Current development, the fact that we're facing the sixth mass extinction caused by human suggest that our will to exterminate has now bloodily imposed itself on the existence of other non-human species. The next section, led by Stefano Mancuso's voice, opens with a surprising fact: plants account for 99% of the total biomass on our planet. This figure seems to recalibrate the perception of our self-destructive impact on the planet, resizing the role of human beings in relation to the rest of the living. At the same time, the figure invites us to reflect on the traditional separation between nature and culture, prompting us to reconsider the relationship between these two concepts in the light of ecological interdependence. Do you agree?

Cinema invents New Cages is a bit of a subtitle, and so clearly, the part of *Bestiaries* undoubtedly also, as for a whole series of shots presented, investigates that very aspect there, that is, the use we make of animals and cages. That Stefano Mancuso's voice in *Erbari*, on the other hand, is as if the

film is always playing on these micro and macro aspects, isn't it? And so in the first part of *Bestiaries* we are inside cramped situations that are also difficult to see, no? Where animals are locked up, caged, trapped, anaesthetised, even things that are apparently for the good have an ambiguous, bitter aftertaste, don't they? Because in the end even operations that are in any case a form of cure are, how should I put it, as perception, as feeling again an act that starts with man and is somehow imposed on the animal, no? On the other hand, Mancuso's part in Erbari is as if it makes the horizon even more, enlarges it even more, no? Because it is undoubtedly a striking fact, isn't it? That 99.7% of what is alive is vegetable and not animal, no? Thus, it's not that it diminishes that part there, but it puts not so much the animal in absolute terms, but the human animal in a more, how should I put it, more suitable perspective, no? Because there is no doubt that we feel that we are the masters of the world, and also because of the way we perceive the world, we have undoubtedly done a lot of harm to the world, but luckily, there are still several places, several areas that are free from us, not many, but they are there, so that was the point, wasn't it? The film is made of references, no? Rather than a thesis film, it is not a film in which we have to prove anything, but it was, yes, in short Yes, a relocation as you said.

5.4 Bestiaries, Venice Biennale Catalonia Pavillon:

Casas Casas was born in Barcelona in 1974, he is a director and a video artist who this year, 2024, participated in the Venice Biennale Catalonia Pavillon with the project *Bestiaries*, curated by Filipa Ramos. The name is inspired by a mediaeval book *Dispute de l'ase* (1417) by Anselm Turmeda, one of the first books to be written in Catalan. In the tale, human and animal roles are subverted. For this reason, the protagonist, a monk, is called to face a legal process held by seven animal species (elephant, parrot, snake, bees, bat, dolphin, donkey).

In the Pavillon, the artist, through seven audio stations —made using an extremely sensitive audio technology also called 3D audio or ambisonics system—tries to recreate the sonority of the process, which this time involves the spectators themselves. By listening to the audio emitted in each station, in fact, he/she can listen to a wide range of radio frequencies, ordered by intensity, belonging to each of the species of the book and recorded in their natural habitat. It is important to outline here the eco aspect of the project that has been done to minimise the amount of waste, using lent materials that will function even after the exhibition, which have been transported through land instead of air. Furthermore, the decision not to produce tote bags due to the large amount of water they required and to make brochures of recycled paper were also included in this optic. In addition, the artwork aims to create a real connection with its environment, as it has been exposed in different parks in Catalonia and elsewhere.

Casas's artwork also reflects on our society in the sense that, first, it is made to put humans in the position of the listener, providing as an encouragement to abandon the anthropocentric perspective,

and “transform the mentalities that stop our sustainable advancement as a species” (Casas in Chiadini, 2024); and second, what the listener discovers doing through the exhibition is an interspecies commonality, the vibrations of which we are all made. As will be outlined during the interview, Casas's interest in non-human animals and the environment in general, began when he was a child and has progressively developed during his artistic path, which found expression in the trilogy of documentaries: *End* (2002-2008), filmed in different ‘extreme’ landscape of our planet (Patagonia, Aral Lake, Siberia), and *Cemetery* with which he won the FDI Marseille, 2019, (Festival International du Film). His work has been exhibited and performed in international art institutions and galleries, such as Tate Modern, London, Foundation Cartier, Palais de Tokyo, Centre Pompidou, Paris, Hangar Bicocca, Milan, CCCB Barcelona, GAM Torino, Bozar Bruxelles, among others.

Carolos’ *Bestiaries* serves as a remedy for speciesism, an exhibition for comprehending the world as a symbiotic organism, *Bestiaries*' mission extends to the acknowledgement that perception is not just passive observation but “an active force capable of shaping and manipulating the world” and creating a multispecies collaboration (Chiadini, 2024). To say it with Haraway’s words, Casas's exposition creates “*intimacy without proximity*” such as it tries to understand what other organisms are interested in, how they live their lives, not just how we meddle in them, but to do so, we need to be able to cultivate other capacities that go beyond language in the human sense. “I thought I would invite a group of animals to collaborate in realising this project,”, said this purpose, Casas.

5.5 Carlos Casas Interview⁴

Ciao Carlos, can you please tell me the story of your art, and how the Bestiaries idea was born?

Well, I don’t know, but I believe that (to tell you the story) my work started as a practice linked to documentaries and my passion for travelling, discovering new cultures, bringing my body to other places, and using my body as a passage ground. It is a place of interchange with the other, as a cultural context, but at a physical level. The views, the places, that are distant from me, but which must be intended—in my practice—as an intention to cross over the ordinary was there that my passion for certain types of cinemas began, particularly those that are ethnographic and connected to place and cultural documentation, capturing these elements effectively. Coming from an artistic vision, I have used ethnographies and anthropology as methodologies to make my works understandable and lived in a more poetic, artistic context. I have also always wanted to unify these fields, using more classical methodologies of fieldwork and anthropologic and ethnographic practices with a pure artistic will.

For this reason, I have always had this necessity to understand cinema’s language and music language which is even more experimental. And this led to the fact that, with time, slowly, even my work began

⁴ The interview with Carols Casas took place with zoom on 13 November, 2024

to be presented in cinema festival contexts, and music festival contexts, and then slowly pass to artistic ones: museums, artistic spaces, and in general, spaces with a bigger overture towards those kinds of languages, and those methodologies that I have been using. Those kinds of language, more elaborated, were more suitable for finding its public in a more artistic context.

The following films were born in that way —because of the evolution of my practice— are deeply bonded with sound, and with the willingness to understand it and how to use it to give depth, to widen the dimension to those imageries. And that is the beginning of my films, the *End Trilogy* (2002-2008). A desire to understand different levels of sound and how to use radio frequencies which belong to those places, and that were used by the local populations to communicate, especially in Patagonia. I wanted to understand the phenomenology of sound, which is strongly bonded to the radio-frequency issue and the universe, more in general, with its electromagnetic waves and how this influences landscape perception.

From that point, I started to use more developed technologies from low to high waves and to understand the scenery as a container of all those energies, and frequencies, which dwell in those places, and step by step, that led me to develop, after, the *Trilogy*, the film *Cemetery* (2019), in which I made an important work on sound and elephants language. The film was born from the idea of transcribing a myth, a contemporary myth, the one of the elephants' cemeteries, indeed.

This led me to a new beginning of transgression, of finding a film that could speak and open a new way of communication with other species, with the elephant, as I was looking for communion between humans and elephants. I wanted to find a way for spectators to enter into a new relationship with this species. To achieve this, I collaborated with experts in sound and bioacoustics, including Joyce Poole, one of the foremost authorities on animal communication, and Chris Watson, a renowned sound artist known for his recordings of natural sounds. Chris has also participated in numerous documentary recordings for the BBC etc.

He has been one of the most influential people in my career. He has shaped my understanding of how to capture the environment and the sounds of other species. Most importantly, he has taught me how to immerse myself in those sounds as if they were musical compositions. This experience allows me to transcend the boundaries between poetic and artistic expression and a more scientific approach.

So, during that period of very intensive work on sound came also this project for Biennale, which was aimed to follow this *Cemetery* project, and bring new research connected to understanding different species, and how those sounds can be used as a bridge, as a new way to connect, to activate new emotional systems with the public. With us. This has been to me the continuity with *Bestiaries*, in which we have been using speakers, one of which was already elaborated during the elephant's project, which reproduces, maintains and spreads in the space the infrasound with all the cadence that they produce. This has been very important to me in the *Cemetery* project, and now I desire to

continue it with other species. So, we started working with those seven species, which were part of a mediaeval text, from which the project started, with this willingness to capture the sound spectrum with all its different frequencies, from elephants —which are the lowest part of it— to the dolphins and bats' infrasound. The result was this kind of total spectrum. The species choice was aimed at creating this possibility for the spectator to be involved in those frequencies that create an entire spectrum.

I believe that sound has been one of the most important elements because it made me understand how important it is as a language, for meeting and creating links between me as a creator, artist and person.

The question of the vibrations is for me —and I believe also for you— the most important part of my work. Such as the idea of sound as lingua franca, as a way to establish contact with other species, different than this crazy and oneiric desire of thinking that we as humans can try to have a sort of encyclopaedic translation, of other species' language. I believe —and that's one of my positions— that we are already capable of understanding and having a relationship, with other species. All of us understand dogs, and we can do the same with other species. We have lost a lot of this path, and I am convinced it is time to return to it. Not for reaching a sort of total definition of what a language is — as I believe this to be quite impossible— but I trust in the sound power of creating contact and access to a different relationship with other species. This was the objective of my project and my practice. In general, to create a relationship with a species, a passage, with others, as cultural groups and so on...

Now for example I'm working on a new film which would be the second part of another *Trilogy*, which started from *Cemetery* and now *Krakatoa*, which is a film on a volcano's eruption in Indonesia. This time, the issue is to create a bond with the earth, with its sound, and with the seismic question, the ludic question, to syntonize even our bodies with other kinds of systems and affections linked to those vibrations. And all come to this desire to leave, augmenting the possibility of sound as a communicative language between us.

Thank you. How did you develop this interest in sound? What's, for example, your relationship with music? Do you play any instruments? Are you a musician?

I'm not a musician, but I work with sound, in the sense that I like the idea of composing sound and creating sound compositions, and abstractions, to organize sounds. I love to capture sounds and elaborate on them; I love to work on the sound part of my work. Then, I collaborate with many musicians, one of my biggest passions. The music, the sound. But my respect for musicians is too big to allow me to be defined as so. I don't know how to read the scores, but I utilize the sound, in the sense that I produce many registrations, and, in this way, the sound becomes my work base.

I find what you're telling me to be very profound. I play the piano; I love it, and sounds are essential to me, too, as much as language. My bachelor's degree is in Italian literature, but I like

to find new communication ways. For example, one thing that I have always loved about classical music is its capacity to reach my emotions without words. I feel this very deeply in my heart.

Unluckily I have never studied music, this is one of my biggest regrets. This idea of having the possibility to transcribe and understand music language is one of the things that I would like the most and one of the things that I would like to change in my life if only I would have the possibility.

I believe that there is always time to develop one's dreams, for this purpose as surely you know, the Amazonia's Forest sounds have recently been included in the UNESCO, and this is a dimension that we tend to not consider while talking about biodiversity loss. Nevertheless, my field of study, such as the Environmental Humanities, found its development indeed in this aspect as Rachel Carson—one of the pioneers—wrote Silent Spring, 'listening' to the missing sound of spring as birds migrated or died for DDT use... so this hearing loss has been fundamental in the development of what I'm studying. Coming back to us, you've already answered many questions, and so I want to ask you how your connection with the environment was born. Which are the places in which you developed it?

It comes from my passion for travel and exploring places, this has been central in the production of my artistic practice, this desire to bring my body to other places, to which I'm not naturally bonded. There have been some travels, that have changed my path, and me as a person, among these is the first travel I made to Patagonia, one of the first films I have produced which was about some people living in isolation, in solitude, and my effort in this case was to try to have a way to report this. Those experiences in Patagonia, and later the one in Siberia, have been meaningful in concluding this *Trilogy*. I also made a film about a community of whale hunters, with the last three generations surviving the big disaster of Aral Lake, such as the disappearance of this internal sea and its transformation into a man-created desert. And because of this fragility, I came to the necessity of describing such places and living in those extreme places as a sort of periphery of the civilization. This led me to change as a person, to be different, and to enter contact with people who live in total indifference to our Western way of living, and I tried to be as honest as I could in transcribing those kinds of lives. So those films in Patagonia, in Aral, in Siberia are this kind of effort of entering in cohesion and to tune me with those places, those people, and try to change my being, and use my art to report those moments, those traditions. And that attunes you to the context, the landscape, and other places, and slowly gives you this will move on to other things. In the case of the elephant film *Cemetery*, it was also this willingness to see ...

Thank you, Casas. Let us now move on to another context, such as relationships with other animals. Which are—in your opinion—the ways for humans to create a connection with other species?

I believe that among men and elephants, there's this possibility of creating a connection between the mahout, who takes care of the elephant for all his/her life. I wanted to do a film about that story, which simultaneously allowed me to understand the elephants' world, their fascinating language, and their communication system, and I wanted to allow the spectator to do the same.

The *Trilogy* can be understood as an effort to enter into a biological system with other species. *Bestiaries* allow me to continue my research on other species, develop a speculative modality of transcribing those visions, and let the spectator, through the installation, enter a meeting with those species. This was the *Bestiaries'* idea.

There are two last questions, and then we are done. The first one came to mind speaking now, and then there will be the final one. How did this passion for elephants come about? Was it a result of the myth, or is there something in particular about elephants that made you take them to heart?

In the beginning, the project was also born from this desire to transcribe the myth, and mainly this obsession with elephants, as animal species who have a relationship with us and with death too. And without even realising it had started long ago, and slowly I began to be fascinated to understand what this species is with all its myth. The idea of the *Cemetery* (which I first didn't know from where it began) was a sort of encapsulation of many of my worries at that time, and that somehow spoke about many actual things also. The film was presented in 2019, but I started working on it after the Siberian film in 2008 or 2007, so it has been a long incubation, and long research, which was linked to this sort of imagination. I then realized that my fascination with cemeteries dates back to my childhood. When I was about seven years old, I watched *Tarzan*, and I was particularly struck by the scene where Jane and her father visited the cemetery, this forbidden place that humans were not supposed to enter. That vision left a lasting impact on me. Imagine a little boy the first time I saw it; it just stayed with me, and then I had this feeling, I don't know if you ever had it, or if you will have it, of connecting things. This feeling of really understanding where my ideas came from, and the films (if you will watch them) have a lot to do with the cinema itself and with images, with the path of cinema story inside me, as a system with a big changing capacity. The concept of wonder is in us as spectators, which was my aim.

I know the scenes you're talking about. It is beautiful that you could transform the astonishment you felt in childhood into adulthood art...So this is the last question...because I finished reading it today: How to Speak Whales (2022). I like to read so much; there are some books that when I finish them, I really feel that they have left something inside me because I usually keep the last 15 pages to finish a book I go down the place where I want that, where I want them to finish. And it doesn't happen with every book; for example, many didn't leave that impression, but this was one of the ones I finished reading, and I said... ah!

And here, Mustill says at the end of this speech that he wonders what, if he could talk to whales, he would ask them, and the answer is, "What do you care for?" So instead, you, if you could talk to an elephant, what would you say to it? Would you tell it something? And then we say goodbye.

Well, in many aspects, I can retain myself lucky because I had this sensation of communication with an elephant. While I was doing my casting in Sri Lanka, where I have been working, there was one time that I believe to have been fundamental because it was then that I understood what infrasound is, what it means in communication, what it means to communicate through vibrations, as a communication system. And I was in that place, a few meters away from the elephants, who could not move as they were in their mass period, which made them also dangerous. And the mahout with who I was working said to me: "Stay here, nothing will happen, but you must respect this distance". While I was there, the elephant continued to send those frequencies of infrasound as he/she was scanning me. The elephant wanted to understand me somehow, what kind of person I am, and I could even perceive a sort of vibration through my body too. That has been a kind of epiphany to me, because starting from that moment I understood many things concerning sound, communication itself, and the possibilities it can have. I realized how many communication ways we have. It has been a magic moment, in which I felt this, and I have tried to leave something of myself to the elephant, through this exchange of vibrations

Maybe he/she got many things from me; maybe he/she understood more about who I am than what I can do.

And if I have to answer the question of what I will ask the elephant if I have the possibility, to tell the truth, I believe that those moments are special for that reason, because we build a communication without a dialogue. I think that interspecies is of much more value because I believe that my ability to exchange vibration would somehow be exponentially much stronger than the idea that I could understand or speak a sentence or say, no? Our *umwelt*, our, say, bubble, perceptual surrounding me, surrounding the elephant, are so different that the idea of there being some cohesion for me is not important. For me, these moments of affection and connection are more important. I believe, and I hope, that he/she has taken from me what he considered necessary to understand us better, and I have taken from him/her as much as I could to understand what I needed to open myself to who the elephant is. To explain my position, we need to create more of these moments where we enter into some message to understand this message, which goes beyond the classic system of letters and our systems of coding communication. For me, it is almost at the level of music that can transport you to another place, a place where meaning and words do not have the same value, which is why sound and, by extension, music. Because, for me, everything is music, and all the sounds are very interesting. As an artist, I want to see if I can draw the audience, the viewer, and the members of society to create new spaces of affection for other species. This is my goal, the biggest prize I can have as an artist.

5.6 Discussion

In Casas's exposition and artistic work, images are built with the idea of giving the spectator the possibility of entering a different landscape, where human presence is different and often restricted, where human presence lives in a sort of retirement in close relationship with other species as in all of the *End Trilogy*,

I was interested in the collective imagination of these places and their mythic idea of the end of the world. I was interested in landscapes, places that carried in a certain way a feeling of the “End” through abandoned, remoteness, the harshness of the land, and, of course, living conditions. These places could represent a post-apocalyptic future scenario and, at the same time, a certain archaic civilisation feeling. (Carlos Casas)

This concept of end and death, belonging to the Trilogy, is presented in the following *Cimitero* and the myth of the Elephant Cemetery, described as a film about death, reincarnation, and immortality, where Hindu and Buddhist traditions mix. A film about memory, colonialism, discovery, loss of innocence, the collapse of civilisation, the demise of all sanctuaries, and unexplored territories. A road film featuring elephants, a sound-oriented film guided by a monologue voiceover, showcasing the incredible sounds of the jungle and extensive sound research related to the sonic language of the elephant. Films, ranging from experimental abstract films to animal and landscape films. The elephant cemetery represents the in-between of our lives, the place we must reach to reincarnate and migrate to our next stage. Casas's life experiences with these landscapes and non-human animals have been translated, like a sheet of music, into a spectrum of vibrations transmitted to the public at the Biennale exposition.

The experience that he proposes is the creation of a ‘space’ to listen to other than human animals and where doing it not by deciphering sound such as using our brain- but by feeling with our bodies. The acoustic path of the *Bestiaries* exposition speaks a universal language that can be listened to and felt by different species and, at the same time, re-insert human presence in its ecosystem position as part of the animal domain. The *Umwelt*, which Casas mentions during the interview, is a network of vibrations that uniformly pass through nature. It is a wave-like level of matter. This state of perception with the living environment in which we are immersed and amplified by loneliness and myths — themes common to the artist's path— is proposed to us in the exhibition to give us another positionality. In this discussion, this repositioning forms the link with the issues surrounding the possibility of inter-species communication and proposes an alternative to the deafening anthropocentrism. Employing different representations, the species involved in Casas's work are transported to the city spaces that have been denied them or in which they are subjected to exploitation and killing, as the discussed above slides of *Bestiari Erbari and Lapidari* demonstrate. In this exhibition, on the other hand, these voices come to us mediated by instruments that do not intend their bending to re-enter a pre-constituted plot but invite us to listen to what the perception of a non-verbal language can communicate to us. As Eva Meijer reminds us:

To listen to animals is not only to acknowledge their existence as subjects but also to open up the possibility of rethinking how we organize our shared world. They are already speaking; we just have to learn how to hear them. (Meijer, 2013, 6)

The two respective works unite under the term ‘Bestiaries’ for this thread, highlighting their connection in ‘restoring’ an alternative vision of the ‘animal compendium’. In this sense, Parenti and D’Anolfi’s film reflects a historical view of the human approach to other creatures, which is highly functionalistic, since in the slides, the totality of the subjects appear manipulated, both directly and indirectly —through their own image—by human hands. That of *Bestiari Erbari e Lapidari* is a reconstruction of ‘our’ way of approaching other creatures, and what of this way has been deemed worthy of being stopped—in film—and passed on to the future.

The animal compendium of *Bestiari Erbari e Lapidari* fits perfectly into our time because, as its sources date back to the dawn of the first filming, they represent the first products, the first restorations of the modern relationship between humans and non-humans. Certainly, animal subjugation and manipulation had begun much earlier but had never been filmed. Non-human animals have been used, according to Haraway and Timeto, as mirrors to reflect man’s humanity and enshrine his detachment from animality, the way we polished these mirrors, as you write in animal sociology, depended very much on what we wanted them to look like and the representational strategies we put in place. (Haraway and Timeto, 2020, 33)

In this sense, we perceive the red thread with the medieval bestiaries; the subject is always the same: our human way of looking at other animals, but this time, the mechanistic reason, extradited from any empathy form of the mind, guides our eye. We have lost the magic with which one looked at them, which in the film is given back to us under the ancient form of fable; in modern times, the animal has been emptied of experience and secret (Berger, 33)

Outside of fairy tales, however, the bodies open up, as—but not only—during the operations filmed by the veterinarian, now the reason that guides the view is strong in the suprematism of its power. Power that allows us to experiment our ideas on other bodies, feeling legitimised in the social system that allows this to happen.

If it is true that, as D’Anolfi said during the interview, “the more we know the animals, the more we move away from them,” the film instead invites us to shorten the distance, to look closely at our murderous cruelty without there being any room for justification.

If as Berger noted, we have lost the possibility of a gaze with the wild, with the other animals’ world, because this gaze is impossible as we have trapped them in cages, thus nullifying their perception of the living world to the point that, often, animals in captivity refuse to breed their cuddle, the film, however, leaves us unable to escape our own reflection and the way we have imposed our lives over other creatures.

For Berger, all languages of art have developed to attempt to transform the instantaneous into the permanent (Berger, 1974,81); in this perspective, D'Anolfi and Parenti's film can be conceived, as already mentioned, as a permanent look at ourselves, an incitement to confront our sadistic past. The revenge, the repositioning of the human position, comes later in *Erbari: The Cure*, led by Stefano Mancuso's voice: '99% of the living mass on this planet are plants. Here, we are repositioned.

The works discussed can, in this context, be seen as complementary: Casas, we have, the free dimension of living beings, which no longer need, as was the case in medieval bestiaries, to be symbolised in order to communicate with us, as communication takes place on the common vibrational plane, which is, however, constantly silenced by the incessant din of our societies:

When man has risen above the state of nature, so have the animals fallen below it: conquered and turned into slaves, or treated as rebels and scattered, their societies have vanished, their industry has become unproductive, their faltering arts have disappeared (Berger, 43).

On the one hand, in *Erbari e Lapidari*, we find the cries of other animals (which are also ours) locked up in cages and anthropocentric, unnaturalizing prisons. In this, we find the synthesis of what has been discussed so far: the beauty of a language that is alive but stifled by our buildings, our streets, and our minds, and which, therefore, requires us to abandon them in order to listen to it, to become more than a whisper in the mute of our traffic. And on the other, the roar, the protest of those trapped in our nets, martyrs of our cruelty.

Chapter 5. References

- Artribune. 2024. "Catalonia in Venice—Carlos Casas: Bestiari." Accesso 5 febbraio 2025. <https://www.artribune.com/mostre-evento-arte/catalonia-in-venice-bestiari-carlos-casas/>
- Berger, John 2016 Perché guardiamo gli animali? . Milano: Il Saggiatore
- Cardini, Franco. 1986. "Enciclopedie, trattati, bestiari nell'immaginario medievale." *Abstracta*, aprile. Accesso 5 febbraio 2025. <https://artlantern.net/bestiari-carlos-casas/>
- Chiadini, Isabella. 2024. "Casas Casas—Bestiari." *Art Lantern*. Accesso 5 febbraio 2025. <https://artlantern.net/bestiari-carlos-casas/>
- De Domenico, Maria Grazia. 2019. "I Bestiari e le scienze naturali nel Medioevo." Tesi di dottorato, Università degli Studi di Messina. Accesso 5 febbraio 2025. https://iris.unime.it/retrieve/de3e52b3-bcc3-762d-e053-3705fe0a30e0/Tesi%20Dottorato%20Scienze%20Cognitive%20XXXII%20ciclo_De%20Domenico%20Maria%20Grazia.pdf
- Di Siviglia, Isidoro 2013 Etimologie o origini. Torino: UTET
- Franco, C. 2003. "Animals and Cultural Analysis." In *Good for Thinking: Gli animali nel pensiero e nella letteratura dell'antichità*, a cura di F. Gasti ed E. Romano, 81–96. Pavia-Como: Ibis.
- Haraway, Donna J .2013 *When Species Meet*. University of Minnesota Press.
- "Il bestiario medievale: un mondo di creature magiche e terrificanti." Accesso 5 febbraio 2025. https://www.storicang.it/a/il-bestiario-medievale-mondo-di-creature-magiche-e-terrificanti_15358.
- Italia Medievale. 2021. "La creazione della terra, del cielo e del mare nel bestiario di Aberdeen." Accesso 5 febbraio 2025. <https://www.italiamedievale.org/la-creazione-della-terra-del-cielo-e-del-mare-nel-bestiario-di-aberdeen/>
- Latour, Bruno. 1991. *Non siamo mai stati moderni*. Milano: Elèuthera.
- McCulloch, Florence. 1960. *Medieval Latin and French Bestiaries*. Chapel Hill: The University of North Carolina Press.
- Meijer, Eva. 2019. *When Animals Speak: Toward an Interspecies Democracy*. New York: New York University Press.
- Morini, Luciano. 1996. *Bestiari medievali*. Torino: Einaudi.
- Nastro, Santa. 2024. "Se gli animali potessero giudicare. La mostra di Casas Casas a Venezia." *Artribune*, 4 maggio. Accesso 5 febbraio 2025. <https://www.artribune.com/progetti/mostra-casas-casas-venezia>

Pastoureau, Michel. 2012. Bestiari del Medioevo. Torino: Einaudi.

Plumwood, Val. 2013. The Eye of the Crocodile. Canberra: ANU E Press.

RaiPlay. 2019. "Passato e Presente 2018/19 - I bestiari medievali." Video. Accesso 5 febbraio 2025.
<https://www.raiplay.it/video/2019/04/Passato-e-Presente-I-bestiari-medievali-cfe6957f-e749-4047-9fe5-c50f8073a7f4.html>

Timeto, Federica. 2020. Bestiario Haraway. Per un femminismo multispecie. Milano: Mimesis.

Treccani. "Bestiario." Accesso 5 febbraio 2025.
[https://www.treccani.it/enciclopedia/bestiario_\(Enciclopedia-Italiana\)/](https://www.treccani.it/enciclopedia/bestiario_(Enciclopedia-Italiana)/).

Turmeda, Anselm., Llinarès, Armand 1984. Dispute de l'âne. Francia: Vrin,

Conclusion

This thesis aims to unhinge the nun-human divide by deconstructing one of its most rigid distinctions: the ability to communicate, from which nun-human animals have been excluded for centuries.

In order to provide the historical context from which it arose, the first chapter, *Historical Overview*, traces the stages of its emergence from the Middle Ages to the present day.

The second chapter, *Feminist Movement Overview*, undertakes to provide a chronology of the development of the feminist movement, which serves as a critical method for the analysis of the entire work; indeed, the feminist struggle, in its various connotations, has always been side by side with the liberation of non-human animals, since the oppression of both, women and non-human animals, is addressed to the same power structures that have caused their exploitation and marginalisation

Given the historical context and having ascertained the approach with which this paper is carried out, in chapter three, *Widening The Linguistic Assumption*, an attempt has been made to broaden the conception of language so that other intelligence, such as swarm intelligence and methods of communication, such as ecosemiotics, and body language—all constituting shared capacity between human and non-human species— can be included.

The fourth and fifth chapters, on the other hand, demonstrate how literature, art, and cinema can be functional channels for an extended transmission of this communicative possibility.

In particular, the fourth chapter, *Communicating Cetaceans Through Literature*, has examined Alexis Pauline Gumbs' *Undrowned: Feminist Lessons from Marine Mammals* (2020) in order to construct a different narrative of the animal species included in it. To this end, the three species covered in the chapter, dolphins, orcas, and humpback whales, have been introduced, and a commentary highlighting their agency and individuality, also focused on their communicative ability, has been accompanied. Another aim of the chapter is to illustrate how these narratives can make us reflect on other histories of oppression intertwined with Black Feminism, colonialism, and the phenomenon of migration.

The fifth chapter, *Interspecies Communication Through Cinema and Art*, has exposed, through interviews with the authors, the artistic and filmic rendering of interspecies communication. The chapter starts with a word common to both works: Bestiaries. After illustrating the historical function of the literary genre, which in our days can be understood as a summary of the medieval view of the animal world, the first case studies described, *Bestiari Erbari e Lapidari* (2024) by Massimo D'Anolfi and Martina Parenti, allows us, through its narration, to grasp how this view has evolved up to the present day.

The second case study, the *Bestiaries* exhibition at the Venice Biennale in 2024 by Carlos Casas, built with 7 audio stations in which the viewer can listen to radio frequencies belonging to the seven species involved, was understood in this paper as the artistic realisation of a space for interspecies communication. By placing the spectator in a listening position, in fact, it revalues the non-human species of the communicative space too long denied to them and places the human in a listening position, handing over the stage to the non-human animals as protagonists.

What I have tried to provide the reader with, in conclusion, are tools belonging to feminist critique, including the practice of caring and mutual listening, through which to build new interspecies relationships. An attempt has also been made to construct a narrative that starts from an encounter with the non-human and restores full dignity to it. For this liberation to take place, it is necessary to analyse all the offshoots of oppression that have constructed it. To this end, a feminist critique is essential to fully understand the true extent of the marginalising system that oppresses the liminal categories in power. Animal liberation, and that advocated by women's movements, are the beacons that guide my existence, battles in which I faithfully believe. The hope is that this paper can, therefore, join their struggle.

Ringraziamenti

Questa tesi, che in questo momento appare come l'atto conclusivo della mia lunga carriera universitaria è dedicata a mia madre, che con delicatezza mi ha insegnato ed essere più forte che mai.

Un ringraziamento particolare va anche a mio padre che mi ha trasmesso l'amore per l'osservazione dei piccoli attimi con i quali la vita si manifesta nella sua più grande bellezza,

e a mio fratello Elia e le mie amiche Francesca, Veronica, Giulia, e Rachele con cui sono cresciuta e che mi supportano da sempre e senza mai smettere di credere in me,

alle mie compagne di corso dalle quali ho imparato tante cose e che mi hanno fatta sentire capita e compresa,

alle mie gatte, che mi hanno insegnato ad amare senza parole,

a Venezia che mi ha fatta innamorare,

alla bellezza del mondo naturale che non smette mai di stupirmi, e a tutte le persone e gli animali che continuano a lottare contro l'oppressione e contro le disuguaglianze, che la loro fiamma possa non estinguersi mai.

Ulteriore riconoscenza va al mio relatore Lucio de Capitani per avermi assistita con gentilezza ed estrema disponibilità, e a Massimo D'Anolfi e Carlos Casas per aver consentito di approfondire i loro lavori tramite le interviste.