Hacettepe University Graduate School of Social Sciences

Department of English Language and Literature

English Language and Literature Programme

"OUT OF THE MAZE OF DUALISMS": POSTHUMAN SPACE IN MARIO PETRUCCI AND ALICE OSWALD'S POETRY

Seçil ERKOÇ

Ph.D. Dissertation

Ankara, 2020

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To my beloved family…

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ABSTRACT

ERKOÇ, Seçil. *"Out of the Maze of Dualisms": Posthuman Space in Mario Petrucci and Alice Oswald's Poetry,* Ph.D. Thesis, Ankara, 2020.

In the light of recent theories of posthumanism that promote a non-anthropocentric perspective, this study examines the poems of contemporary British poets Mario Petrucci and Alice Oswald and argues that they write posthuman poetry which represents posthuman space(s) of becoming, where the human and the nonhuman worlds exist on a non-hierarchical basis. This study thus shows that Petrucci's posthuman poetry is mainly concerned with representing the ecological problems observed in the Anthropocene, and it illustrates how the human agency is dwarfed by the destructive consequences generated in the ecosystem. In a posthuman context, therefore, Petrucci problematises the human/nonhuman binary by demonstrating the erosion of the anthropocentric world view in the face of environmental crises such as deforestation, global warming, and the Chernobyl nuclear disaster in *Bosco* (1999), *Heavy Water: A Poem for Chernobyl* (2004) and *Half Life: Poems for Chernobyl* (2004). In these collections, Petrucci underscores the agentic properties of trees and radioactive particles, and thereby challenges the prevalent view of nonhuman matter as a passive entity. Likewise, Alice Oswald introduces a posthuman poetry which moves the reader beyond the human-centred treatment of the natural world. Negating human exceptionalism, Oswald's *Dart* (2002) offers a polyphonic meshwork where the voices of alternating human speakers and that of the River Dart flow into one another in a posthuman space. Underlining intersubjective and dialogic interchange between human and nonhuman inhabitants of the Severn Estuary and the lunar cycle, Oswald's *A Sleepwalk on the Severn* (2009) also disavows the subject/object binary by forming a posthuman space of becoming that involves a communicative framework. Hence, bringing Petrucci and Oswald together, this study calls attention to the trans-corporeal and polyphonic entanglement of human-nonhuman, subject-object and self-other non-binaries, and it aims to show how poetry, as a literary tool, can help to change the restricted anthropocentric vision of humankind in today's world.

Keywords: Contemporary British Poetry, Posthumanism, Mario Petrucci, *Bosco*, *Heavy Water: A Poem for Chernobyl*, *Half Life: Poems for Chernobyl*, Alice Oswald, *Dart*, *A Sleepwalk on the Severn*

ÖZET

ERKOÇ, Seçil. *"İkilikler Labirentinden Çıkış": Mario Petrucci ve Alice Oswald'ın Şiirinde Posthüman Mekân,* Doktora Tezi, Ankara, 2020.

İnsanı merkeze konumlandırmayan bir bakış açısıyla hareket eden güncel posthümanist teorilerden yola çıkan bu çalışma çağdaş İngiliz şairleri Mario Petrucci ve Alice Oswald'ın şiirlerini inceleler ve bu şairlerin, insanın tahakküm eden bir özne olarak görülemeyeceği posthüman mekân temsilleri yarattığını ve posthüman şiir türünde örnekler verdiğini savunur. Dolayısıyla bu çalışma, Petrucci'nin posthüman şiirinin daha çok Antroposen çağın ekolojik sorunlarına değindiğini ve böylece insanın eyleyici gücünün bu sorunların yol açtığı yıkıcı sonuçlar tarafından nasıl iktidarsızlaştırıldığını gösterir. Posthüman teori bağlamında ele alındığında Petrucci, *Bosco* (1999), *Heavy Water: A Poem for Chernobyl* (2004) ve *Half Life: Poems for Chernobyl* (2004) eserlerinde ormanların yok edilmesi, küresel ısınma ve Çernobil nükleer faciası karşısında insan merkezli düşüncenin nasıl erozyona uğradığını betimler ve insan/insan olmayan karşıtlığını sorgular. Bu eserlerde Petrucci ağaçların ve radyoaktif parçacıkların eyleyici gücüne dikkat çekerek, insan olmayan maddeleri pasif konuma indirgeyen yaygın görüşe karşı çıkar. Benzer şekilde, Alice Oswald okuyucuyu doğanın insan merkezli temsilinin ötesine taşıyarak posthüman şiir türünde örnekler verir. Şairin, insanın biricikliğini olumsuzlayan *Dart* (2002) eserinde, insanın ve Dart Nehri'nin seslerinin birbirine karıştığı polifonik bir örgü yarattığı görülmektedir. Severn Haliç'inde buluşan insan ve insan olmayan varlıklar ile ay döngüsü arasındaki özneler arası ve etkileşimsel geçişe vurgu yapan Oswald'ın *A Sleepwalk on the Severn* (2009) eseri de özne/nesne ayrımını, iletişimsel bir zemin üzerine inşa edilen oluşum halindeki posthüman mekân temsili üzerinden reddeder. Böylece, bu çalışma Petrucci ve Oswald'ı bir araya getirerek, insan-insan olmayan, özne-nesne, ben-öteki ikiliksizliği arasındaki beden-ötesi cisimci ve çoksesli dolanıma dikkat çeker ve edebi bir araç olarak şiirin günümüz dünyasının sınırlı insan merkezli görüşünü değiştirmeye nasıl yardımcı olabileceğini göstermeyi amaçlar.

Anahtar Sözcükler: Çağdaş İngiliz Şiiri, Posthümanizm, Mario Petrucci, *Bosco*, *Heavy Water: A Poem for Chernobyl*, *Half Life: Poems for Chernobyl*, Alice Oswald, *Dart, A Sleepwalk on the Severn*

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INTRODUCTION

> Just as the Hebrew term for human (*adam*) relates directly to the word for earth (*adamah*), so also the English term "human" relates directly to the word "humus"—the earth or soil. Thus, both the Hebrew *adam* and the English "human" can be precisely translated as "earthling" or "earthborn one."
>
> —David Abram, *The Spell of the Sensuous*

This study aims to explore the non-hierarchical alignment of human and nonhuman agencies in Mario Petrucci's *Bosco* (1999), *Heavy Water: A Poem for Chernobyl* (2004), *Half Life: Poems for Chernobyl* (2004), and Alice Oswald's *Dart* (2002) and *A Sleepwalk on the Severn* (2009). Building on posthumanism and employing the term 'posthuman space' as a methodological tool in order to go beyond the rigid definitions of nature and environment – which have long been shaped by the anthropocentric ideologies that perpetuate the dichotomies pertaining to culture and nature, self and other, here and there – it is argued that Petrucci and Oswald's poetry envisions a non-dualistic perception that exposes the human 'self' to the co-shaping touch of the nonhuman 'other.'

In line with the tenets of posthumanism, posthuman space refers to the collective spaces shared and inhabited by humans and nonhumans where the human agent is shown to be an anonymous member of the more-than-human world – rather than an authoritative player that enforces his/her designs upon it. Introduced by David Abram in *The Spell of the Sensuous: Perception and Language in a More-Than-Human World* (1997), the phrase *more-than-human world*[1] stands for the non-human sphere which has agencies of its own and is co-constituted by human and nonhuman forces that range from organic to inorganic beings – including plants, animals, rocks, stones, tectonic plates, rivers as well as the biosphere, the moon, stars, and planetary systems in the wider; and cellular beings, subatomic particles, microorganisms and radionuclides in the smaller scale. Analysing the representation of posthuman space(s) that are illustrated in Petrucci and Oswald's above-mentioned works, therefore, this study develops a critical perspective that underlines human and nonhuman interdependency. The posthuman space(s) that are

displayed in Petrucci and Oswald's poetry, however, do not necessarily follow the same direction. In other words, Petrucci projects a trans-corporeal[2] space where the human as a corporeal being is "entrenched in a broad system of interconnections that include the non-human world" (Iovino, "Ecocriticism" 32) – against a background of environmental concerns such as deforestation and global warming in *Bosco*, and the Chernobyl nuclear disaster in *Heavy Water* and *Half Life*. Oswald, on the other hand, creates a dialogic space where the first-person-speaker, that is the lyric I/eye, loses its centralised position within a polyvocal confluence that is shaped through the voices and reflections of human and nonhuman entities in her book-length river poems *Dart* and *A Sleepwalk on the Severn*.

So as to better understand the prominence and the development of posthuman space as an encompassing term, however, it is important to acknowledge how the human-induced ecological crises have long been shaping the way we re-interpret our physical and intellectual dialogue with the more-than-human world. Today, moving towards the third decade of the 21st century, it is obvious that the well-being of the planet is threatened by imbalances generated in the ecological system. As reported on October 8, 2018, to reverse the devastating impacts of climate change, precautions should be taken as quickly as possible, since by 2030 the outcomes will be irreversible. The journalists Miller and Croft call attention to the report issued by the UN Intergovernmental Panel on Climate Change (IPCC) which warns that "the planet will reach the crucial threshold of 1.5 degrees Celsius (2.7 degrees Fahrenheit) above pre-industrial levels by as early as 2030, precipitating the risk of extreme drought, wildfires, floods and food shortages for hundreds of millions of people" (Miller and Croft par. 2). These catastrophic scenarios can no longer be seen as statistical information because one of the most devastating ecological disasters triggered by the rise in global temperature has recently taken place in Australia. Starting in September 2019 and continuing into the early 2020, the Australian wildfires have caused the death of at least 28 people and more than 1 billion animals in the continent (Lunsford par. 1). According to scientists, Australia is now 1.4 degrees Celsius warmer than the global average temperature measured in the pre-industrial period. This sudden increase in the global temperature has played a significant role in preparing suitable conditions[3] for the emergence of wildfires in the region (McGrath pars. 11, 14). Thus, it is realised that all life forms are now facing more destructive ecological

crises, and there are less than ten years left to alleviate the impact of more catastrophic scenarios that are likely to take place in the future.

Taking the ideas of the German sociologist Ulrich Beck as a standpoint, Lawrence Buell in *The Future of Environmental Criticism* (2005) suggests that "industrial modernization has permanently destabilized life on earth because technology can no longer control the damage wrought by its own unintended consequences" (90). Calling attention to Ulrich Beck's introduction of the term *risk society*[4] to describe the adverse outcomes created by the industrial society, Buell underlines the paradoxical awakening triggered by environmental risk factors, where only after witnessing the dire results of their actions do human beings start considering themselves as part of the more-than-human world – since their comfort and security are threatened on such a large scale (90). As Timothy Morton also indicates in *The Ecological Thought* (2010), the "ecological crisis that we face today is so obvious that it becomes easy–for some, strangely or frighteningly easy–to join the dots and see that everything is interconnected" (1). Be it out of fear or not, living at a time when the global security of the planet is under threat, it becomes a necessity to reconfigure the dynamics of the relationship between human and nonhuman beings and to project an ecological dimension where the human can no longer be seen as an isolated unit but part of a co-existence[5] that operates on a "horizontal dialectic" (Iovino, "Ecocriticism" 44).

Relevant to the present historical moment, therefore, contemporary literature best scrutinises the current questions related to "the radical decentring of the traditional sovereign, coherent and autonomous human in order to demonstrate how the human is always already evolving with, constituted by and constitutive of multiple forms of life" (Nayar 11). Hence, it is not unexpected that literature and criticism have "begun to address seriously the issues of environmental destruction and ecological (im)balance" (Borthwick, "The Sustainable" 63) and underline the vulnerability and the dethronement of the human – thereby ushering in a posthuman turn[6] that is reflected in both contemporary literature and theory. In this regard, problematising the supremacy of the human, the posthuman turn functions as an ecological critique of anthropocentrism by pointing to a deeper level of understanding that "refashions the very idea of the human"

(Nayar 105) and positions both the human and the nonhuman in a posthuman space which can no longer be environed by hierarchical categorisations.

The ecological disasters that we are facing today do not merely stem from physical causes such as climate change and global warming that interfere with the regular functioning of the planet Earth. The cultural roots of environmental crises should be taken into consideration so that it will be possible to address the issue from a comprehensive standpoint. The cultural roots of ecological catastrophes can be linked to anthropocentric constructions of nature[7] in Western intellectual history which have long been accentuating the division between human and nonhuman entities. Therefore, it is necessary to introduce an equitable terminology that is not tainted by the hierarchical perpetuation of human/nonhuman, subject/object binaries. On this view, this study proposes that, in line with the posthuman turn, contemporary nature poetry needs to be re-conceptualised under a more encompassing nomenclature. Hence, by highlighting the idea that the human and the nonhuman co-exist in a posthuman space, where strict categorizations give way to notions of entanglement and fluidity, the term 'posthuman poetry' is suggested as a non-anthropocentric alternative that can go beyond the false dichotomies of traditional nature poetries.

It should be remarked that though "[r]ecently, the term ecopoetry has established itself as the preferred term by many writers and critics to describe poetry responding to contemporary environmental crisis" (Borthwick, "The Sustainable" 63), this study does not designate the label *ecopoetry* to Petrucci and Oswald's poetry, even though Petrucci writes with an ecological concern in mind and Oswald adopts an eco-centric voice in her work. Hereby, it is necessary to understand the differences between "the umbrella category of nature poetry, nature poetry's subcategory of environmental poetry, and environmental poetry's even more restrictive subcategory of ecopoetry" (Dunning 67) so that it will be easier to interpret the works of Petrucci and Oswald from a broader and more multi-dimensional perspective.

Before focusing on the similarities and differences between the subsets of nature poetics, it is also important to comprehend why the posthuman turn has taken place in

contemporary nature poetry. In the wake of a growing realisation that underscores the global impact of the human-induced ecological crises, it is no longer possible to talk about the existence of an idealised nature. Besides, as the negative after-effects of ozone depletion and global warming have demonstrated, it is now realised that nature has the capacity to respond to human intervention. Therefore, as opposed to the romantic idealisation of the material world, contemporary poets cannot treat nature as an ever-stable, passive entity that waits to be regulated. As Nolan also argues in *Unnatural Ecopoetics* (2017), changing physical conditions that are experienced globally "demand new modes of examining how environments are expressed poetically" (35). Accordingly, contemporary nature poetry shows more interest in illustrating environmental issues and in locating the human, not as a domineering force but as a plain component of the more-than-human world.

Neil Astley, the editor of the British Anthology *Earth Shattering: Ecopoems* (2007),[8] states that, though the works of poets such as Ted Hughes (1930-1998), Seamus Heaney (1939-2013) and Michael Longley (b. 1939) have shown how nature poetry has kept up with the times, "compared with America there are still relatively few highly respected poets in Britain and Ireland widely appreciated for their contribution to environmental debate" (15). According to Tom Bristow, on the other hand, Seamus Heaney, Alice Oswald and John Burnside (b. 1955) can be located among other international poets – who dwell on environmental issues – including Mary Oliver (1935-2019) and Alison Funk (b. 1951) from the USA, Les Murray (1938-2019) from Australia, Nicanor Parra (1914-2018) from Chile, and James K. Baxter (1926-1972) from New Zealand ("Ecopoetics" 158). Bristow asserts that all of these poets write "in response to the most recent environmental, ecological, and political texts of the late twentieth century," and they enable us "to see the world in all its complexity and vitality" ("Ecopoetics" 158). Parallel to that, exploring the connection between poetry and the ecological issues in her article "Alice Oswald: Nature Poetry and Climate Change" (2018) Seren Livie refers to Andrew Motion (b. 1952) and Carol Ann Duffy (b. 1955), two recent British Poet Laureates, who composed poems for *The Guardian*'s climate change campaigns[9] that were launched in 2009 and 2015, respectively (par. 3). Hence, Livie argues that contemporary British poetry has long responded to the "changing state of nature poetry"

(par. 3) by giving voice to the ecological problems of the 21st century. In the same vein, it is important to note that the current British Poet Laureate, Simon Armitage (b. 1963) announced in November 2019 that he is donating his salary to fund the annual Laurel prize[10] which will be given to the "best collection of poems 'with nature and the environment at their heart,' with the aim of highlighting 'the challenges facing our planet'" (qtd. in Flood, par. 1). However, indicating the large number of non-fiction nature writing introduced by authors such as Tim Dee (b. 1961) and Robert Macfarlane (b. 1976), Armitage maintains that notwithstanding the works of Paul Farley (b. 1965), Kathleen Jamie (b. 1962), Pascale Petit (b. 1953), John Burnside, Alice Oswald and others, "similar fashioning has 'slightly gone unheralded in poetry'" (qtd. in Flood par. 3). Therefore, as Armitage states further, "I want the prize to celebrate and reward that work, to encourage more of it, and to be part of the discourse and awareness about our current environmental predicament" (qtd. in "Poet laureate" par. 7). Obviously, though less in number when compared to their American counterparts, contemporary British poets have started to pay more attention to the outcomes of the ecological imbalance that have been created by humankind.

Hence, as the English poet and scholar Peter Abbs (b. 1942) – who is also the editor of *Earth Songs: A Resurgence Anthology of Contemporary Eco-poetry* (2002)[11] – remarks, "there could be no more nature poetry" since our contemporary poets "are now writing an eco-poetry" that incurs an awareness regarding "*the state of nature and its place in our lives*" ("Introduction" 15, emphasis in original). Nonetheless, as will be explained below, ecopoetry – a problematic term that continues to accentuate human/nonhuman division – cannot encompass the broad scale of the contemporary nature poetry since it is basically "defined as poetry that addresses, or can be read in ways that address, the current conditions of our environmental crisis" (Walton 393). In an attempt to widen the scope of ecopoetics, however, another British ecopoetry collection, *Entanglements: New Ecopoetry* (2012) edited by David Knowles and Sharon Blackie, focuses on a "new wave of poetry that seeks to directly respond to the world in which we find ourselves, and that dramatises a growing hunger for meaningful connection with the earth" (Knowles and Blackie, "Editors' Notes" xii). In this sense, as Kate Rigby explains in her review of *Entanglements*, Knowles and Blackie try to redirect our attention not so much towards

what can "be done to halt the ravaging of the earth," but towards the ways in which we should become aware of our entanglement with nonhuman 'others' "in non-pragmatic terms (aesthetically, for instance, or affectively, ethically, psychologically or spiritually)" (par. 2). Therefore, Knowles and Blackie do not mainly foreground the ecological issues while choosing the material[12] to be included in their collection; instead, they emphasise "the human-Nature continuum" (Moore par. 4) by attempting to "negotiate the human position in respect of the environment in which *we* are enmeshed" (Borthwick, "Introduction" xvi, emphasis added). Hereby, as David Borthwick further argues in his "Introduction" to *Entanglements*, ecopoetry's "ethic is to oppose the violent assumption that the world around us exists only as a set of resources which can be readily and unethically exploited and degraded for economic gain" (xvi). However, according to Kate Rigby, "when 'we' probe into the 'we' that is being invoked here, and when we question which 'world' it is in which 'we find ourselves' and how is that we might reconnect, and with which 'earth,'" it is realised that "the 'we' is euro-western, white and […] more-or-less privileged"[13] (par. 3). Hence, it can be argued that despite the motive to expand the scope of ecopoetics, in its inability to acknowledge a posthuman space which can go beyond our/their, here/there, self/other dichotomies, *Entanglements* cannot completely redeem itself from the problematic phraseology of anthropocentric discourse, and it continues to centralise a particular dwelling place from which the human 'subject' continues to interpret the natural world.

In its broadest sense, ecopoetry is defined as illustrating the recent environmental destruction (Walton 393), and it tries to alert humans to the terrible ecological consequences of their actions. While Jonathan Skinner, American poet and ecocritic, is responsible for introducing the term ecopoetics into the academia, Greenberg explains that it "was first used by literary critic Joseph Meeker in the 1970s, and became part of the discourse in the 1990s through British scholar Jonathan Bate's book *The Song of the Earth* and an essay by Lothar Honnighausen on Gary Snyder and Wendell Berry" (27). Skinner also chooses *Ecopoetics* as the title of his literary journal which was launched in the United States in 2001, and in its first issue he describes ecopoetics as follows: " 'Eco' here signals—no more, no less—the house that we share with several million other species, our planet Earth. 'Poetics' is used as *poesis* or making, not necessarily to

emphasise the critical over the creative act (not vice versa). Thus: ecopoetics, a house making" (7, emphasis in original). Nevertheless, as the poet Harriet Tarlo contends, the house-making analogy is "uncomfortably domestic" in the sense that it suggests "the human's residence on earth as the centre of the universe" (par. 11), and, thereby, the anthropocentric order gets validated once again. Additionally, emphasising the root 'eco' – coming from the Greek word *oikos* – which means the home or the dwelling place, Bate in *The Song of the Earth* (2000) states that "[e]copoetry is not a description of dwelling with the earth, not a disengaged thinking about it, but an experiencing of it" (42). Nonetheless, by insisting on a separation between the rural and the urban, since for Bate a poem appeals to senses more than to reason, ecopoetics cannot surpass the "nostalgic and idealistic relationship to the world in which the city firmly remains to one side" (Tarlo par. 17). To illustrate, in his explanation of ecopoetry, Bate preserves the nature/culture divide and argues that

> [t]he poet's way of articulating the relationship between humankind and environment, person and place, is peculiar because it is experiential, not descriptive. Whereas the biologist, the geographer and the Green activist have *narratives* of dwelling, a poem may be a *revelation* of dwelling. Such a claim is phenomenological before it is political, and for this reason ecopoetics may properly be regarded as pre-political. Politics, let us remember, means 'of the polis', of the city. For this reason, the controlling myth of ecopoetics is a myth of the pre-political, the prehistoric: it is a Rousseauesque story about imagining a state of nature prior to the fall into property, into inequality and into the city. (*The Song* 266, emphasis in original)

In contrast to Skinner's definition of ecopoetics as 'house making' that locates the human as the main inhabitant of this domestic place, and Bate's nature/culture division in his idealisation of a pre-industrial state, and, thus, continuing to objectify nature, posthuman poetry explores the anthropocentric regulations of nature poetry, environmental poetry and ecopoetry. Accordingly, it is argued that instead of "becoming entangled in the symbolic load of nature, or of nature-culture dualisms" (Alston 94), posthuman poetry not only develops a synthesis that highlights the points of convergence between human and nonhuman agencies but also problematises the long-held binary oppositions that continue to be accommodated in ecopoetry.

Moreover, referring to his 2002 edited collection *Ecopoetry: A Critical Introduction*,[14] as "a (still tentative) definition" (2) of the term, Bryson presents a summary of the earlier

definitions of ecopoetics, and sheds light both on the similarities and the differences between ecopoetry and nature poetry as follows:

> ecopoetry is a mode that, while adhering to certain conventions of traditional nature poetry, advances beyond that tradition and takes on distinctly contemporary problems and issues, thus becoming generally marked by three primary characteristics: *an ecological and biocentric perspective recognizing the interdependent nature of the world; a deep humility with regard to our relationship with human and nonhuman nature; and an intense skepticism toward hyperrationality*, a skepticism that usually leads to condemnation of an overtechnologized modern world and a warning concerning the very real potential for ecological catastrophe. (2, emphasis added)

Although their works share some of the basic regulations of ecopoetry – as postulated by Bryson in the quote above – it is significant to understand Petrucci and Oswald not as ecopoets, but as posthuman poets. Defining himself "as an ecologist" ("Literature, Science" par. 3), for instance, Mario Petrucci deals with environmental issues such as climate change, deforestation, global warming and the Chernobyl nuclear catastrophe in *Bosco*, *Heavy Water* and *Half Life*, and this puts Petrucci under the category of an ecopoet – in the light of Byron's definition of ecopoetry. Alice Oswald, on the other hand, does not necessarily refer to environmental issues in *Dart* and *A Sleepwalk on the Severn*, because she is "mistrustful of the anthropocentric poetic tradition" (Thacker 107) which posits the human as an observer that perceives the natural world from a superior position. Instead, Oswald "abstracts the self in relation to nature" (Thacker 107), so that rather than imposing the monopoly of the human gaze upon it, she tries to see things from a post-anthropocentric point of view. In this vision, the relationship between humans and nonhumans cannot be reduced to that of an observer and the observed but operates on a fluid framework that designates a dialogic confluence in her works. Here, according to Bryson's definition of ecopoetry again, Oswald, too, may be seen as an ecopoet since she adopts an ecological and biocentric perspective in her poetry. Nevertheless, it should not be forgotten that the human-nonhuman relationship has a history, and there have been other periods in which poets have displayed environmental concerns in their works – as Bate has also argued in *Romantic Ecology*. Indeed, the biocentric perspective, which recognises the inherent value of all human and nonhuman entities, is not a recent phenomenon – because since the ancient times, it has been acknowledged that everything

is interrelated. As John Clark states, "[i]n Spinoza's holistic metaphysics, nature (and perhaps we should say nature/spirit) is seen as a dynamic, all-inclusive, self-creating system—*Natura Naturans*. This conception clearly has many affinities with important trends in contemporary ecological thinking" (103, emphasis in original). In the same vein, Bryson also admits that "it is not the case, of course, that for the first time in modern history poems are being produced that recognize reciprocity within nature and seek to interact humbly with all the natural world" (3). Yet, for Bryson, what is new is "the widespread emphasis on ecology within contemporary intellectual circles" and "ecopoets are aiming at a poetics that presents […] a *community*, rather than a world of creatures and natural beings with whom the privileged human self interacts" (3, emphasis in original).

Notwithstanding the fact that it is possible to apply Bryson's definition of the term ecopoet to Petrucci and Oswald, this study acknowledges that to restrict these poets into such problematic terminologies as nature poet, environmental poet and/or ecopoet would be misguiding in the long run. As will be discussed in the following chapters, just like ecopoets, Petrucci and Oswald have an ecological and biocentric perspective that recognises the interdependence between all human and nonhuman life forms. Moreover, the poets also display deep humility regarding the relationship with the nonhuman realm. However, as Fisher-Wirth and Street argue in their "Preface" to *The Ecopoetry Anthology* (2013) "[w]hile the definitions of ecopoetry are fairly clear cut, the poems themselves are less easily categorized. Like ecological entities—species, watersheds, habitats, and so on—the categories that ecopoems fall into are overlapping, various, discontinuous, and permeable. A single poem may participate in multiple categories" (xxx). Fisher-Wirth and Street's comparing the categories that describe the ecopoems to 'ecological entities' is also significant in that it points to the permeability and the dissolution of classifications. This is the reason why, rather than trying to categorize Petrucci and Oswald's work as nature poetry, environmental poetry and/or ecopoetry this study argues that – as a non-anthropocentric alternative – the term posthuman poetics connotes a fresh nomenclature that sheds light on the representation of posthuman space(s) in Petrucci and Oswald's poetry.

Relatedly, I would like to acknowledge the existing critical approaches to contemporary nature poetry in further developing the idea of posthuman poetry in my thesis. In his PhD dissertation "Beating the Bounds: Exploring the Borders and Scale in Contemporary British Environmental Poetry" (2012), Ben Oliver Sebastian Smith argues that "[t]he move from anthropocentrism to ecocentrism necessitates a fundamental shift in the way we think about environment" (9). Having grouped the works of John Burnside (b. 1955), Thomas A. Clark (b. 1944), Alice Oswald, (b. 1966) and Richard Caddel (1949-2003) under the title *environmental poetry* (13) Smith explains the reason why he chose the term as follows:

> As alternatives, I find 'ecopoetics' too specific to describe such a range of poetic techniques, and 'nature poetry' too reliant on the problematic concept of 'nature' defined in opposition to human culture. The term 'environment,' meanwhile, is very useful for thinking about the relationship between anthropocentrism and ecocentrism, human and more-than-human scales. (13)

At this point, however, it is necessary to refer to Jonathan Bate's reflections regarding the problematic definition of the word *environment* in *The Song of the Earth* (2000). Bate explains that "'[e]nviron' means 'around.' Environmentalist are people who care about the world around us. The world *around us*: anthropocentrism, the valuation of nature only in so far as it radiates out from humankind, remains a given" (138, emphasis in original). B. Smith does not ignore Bate's suggestion that there is an anthropocentric agenda inherent in the term 'environment' itself, and he goes on to make his point as follows: " I agree with Bate to an extent: if we talk about 'our environment,' we are viewing the world in terms of the self; but inherent within the term is also the capacity for viewing the self in terms of the world" (13). Therefore, for B. Smith environmental poetry can "be defined as poetry that explores the concept of 'our environment' and the interconnection of anthropocentrism and ecocentrism that this term suggests" (13).

Referring to the second definition of the phrase 'environment,' offered by the *OED* as "'the physical surroundings or conditions in which a person or other organism lives, develops, etc., or in which a thing exists; the external conditions in general affecting the life, existence or properties of an organism or object,'" Alston aptly states that "the retention of the term 'surroundings' continues to connote enclosures or cordoned-off

places rather than the more fluid concept of interdependent and interrelational ecological systems" (95). Thus, the understanding of the environment as an enclosed territory runs the risk of preserving the nature/culture dualism that enforces the anthropocentric tendencies to either sentimentalise nature ideologically or to usurp its sources physically. In both scenarios, the term environment ends up with enforcing the 'nature is over there' mentality and underscores the "logic of colonisation" (Plumwood, *Feminism* 41) that legitimises the human domination over the natural sphere.

While the relationship between humans and their 'surroundings' is traced back to the ancient times,[15] Keller notes that "the tradition of the Romantic nature lyric […] is most formative for twentieth- and twenty-first-century poets" (246). It mainly stems from the fact that Romanticism – since the end of the 18th century – marks the elevation of nature as a reaction against the mechanistic and repressive regulations of the commercial and the industrial society. Still, it would be a limiting approach to interpret the romantic call to return to nature as going hand in hand with the premises of posthumanist perception that can challenge the exploitation and the objectification of the nonhuman realm. This is because, unlike the intellectual scope of posthumanism that operates on an interdisciplinary platform, "the ingrained romantic structures of thought" (T. Clark 13) tend to evaluate nature as a source of lyrical inspiration for the poet – hence devoid of any scholarly motivation – and continue perpetuating the subject/object binary in Romantic poetry.

Nevertheless, Jonathan Bate's work *Romantic Ecology: Wordsworth and the Environmental Tradition* (1991) "forms a leading example of a significant early step […], especially in Britain" (T. Clark 15) since it applies an ecocritical reading to the Romantics. As opposed to the inclination to label the Romantic poets as escapist in their return to nature, Bate uses the expression 'Romantic ecology' and locates "the poets Wordsworth and John Clare, the Victorian critic John Ruskin and others at the beginning of a green political movement" (T. Clark 16). Deriving from the Romantic conception of nature as a holistic force that embraces everything, Bate recognizes the Earth "as a single vast ecosystem which we destabilize at our peril" (*Romantic Ecology* 40), and he draws attention to Wordsworth's "proto-ecological, anti-industrial arguments in his *The Guide*

to the Lakes [1835]" (T. Clark 16). In this regard, Jonathan Bate generates a link between the reciprocal and the dialogic premises of the ecological thought and the holistic premises of the Romantic thinking. Nonetheless, as Timothy Clark argues, despite acknowledging the significance of the natural world as a topic for literary criticism, Bate's 'Romantic ecology' runs "the risk of over-idealising premodern and capitalist ways of life," so it might assume an anthropocentric outlook that idealises/objectifies nature (19). This is the reason why Romantic poetry – whether ecological in its outlook or not – falls behind in evaluating humans and nonhumans in a non-hierarchical mode of relations and, therefore, continues prioritising the presence of the human.

Unlike the tendency to glorify/objectify nature and/or environment, posthuman poetry exhibits an awareness regarding the dissolution of the hierarchical gap between the human and the nonhuman sphere. In this way, problematic definitions of nature and environment leave their place to a posthuman space that is much more enveloping and extensive. In this context, the term 'posthuman space' functions as an eco-centric substitute, that is an alternative term which encompasses both human and nonhuman agency in a non-hierarchical platform. Posthuman space, therefore, allows us to go beyond the epistemological error[16] of the Western worldview that reinforces "a vision of culture and nature as separate or even opposed, a vision that many environmental thinkers find at the root of environmental crises" (Armbruster 157). Accordingly, rather than using expressions such as nature poetry or environmental poetry, the term posthuman poetry will be used while analysing the works of Petrucci and Oswald.

Here, it should also be noted that posthuman poetry cannot be merely restricted to the representation of ecological catastrophes that threaten particular life forms in a local geography. By the same token, I argue that, as a more inclusive term, posthuman poetics aims to create an eco-centric awareness that acknowledges both negative and positive outcomes of human-nonhuman entanglement which can either be portrayed through ecological catastrophes or through underlining the agential presence of nonhuman entities – as employed in Petrucci and Oswald's poetry, respectively. Recognising the agential capacities of nonhuman forces, therefore, posthuman poetry enables the readers to shift their perception from that of the ego-centric/local to the eco-centric/global one. In that

respect, thinking across the established dualities that continue to be confirmed by conventional nature poetries, posthuman poetry calls for a new insight that overtly expands the scope of ecopoetry and/or environmental poetry.

Accordingly, basing my argument on recent posthuman theories that interrogate the privileged status of the human agency, I suggest that Petrucci and Oswald write this kind of posthuman poetry that calls attention to the entanglement of human and nonhuman realms through emphasising a posthuman space where human exceptionalism is negated. In this trajectory, Petrucci and Oswald have been particularly chosen for analysis because their works can be considered as early examples that display an eco-centric awareness regarding the dissolution of human/nonhuman, culture/nature divisions in the first decade of the 21st century. Coinciding with Paul Crutzen and Eugene Stoermer's announcement of the term the Anthropocene[17] as a new geological epoch in 2000 – which points to the increasing impact of humankind on the evolution of ecological threats – the idea of posthuman poetics also serves as a suitable platform to analyse the contemporary poets' initial response to possible intellectual and physical changes that this conceptual shift is to bring about. In this respect, covering the works published between 1999-2009, it is argued that Petrucci and Oswald's posthuman poetics questions the position of the human 'subject' in the Anthropocene and engenders the move towards an agent-centric perspective that encompasses human and nonhuman entities.

It should be remembered that in its reconfiguration of the human as a geological force that is able to implement adverse impacts on the nonhuman realm, the term Anthropocene is inescapably tainted by anthropocentric innuendos. Nevertheless, in the light of the growing posthumanist theories that examine the hierarchical division between the human and the nonhuman, as well as the material turn[18] that draws attention to the agential capacities of the so-called inert matter, it would be a short-sighted vision to consider humankind as the single factor shaping the nonhuman world. On the contrary, sharing the same posthuman space of becoming, human and nonhuman beings are deeply enmeshed with each other; therefore, once one of the parties harms the ecological balance, it is not surprising that the 'other' strikes back – which has become obvious through the ecological crises that we are facing today. Accordingly, "Donna Haraway and Karen Barad's views

of life in terms of entangled agencies and converging forces are particularly useful in reconfiguring the subjects of the Anthropocene" (Oppermann and Iovino, "Introduction" 12). Seen in this way, the Anthropocene concept forces us to develop a "relational ontology" that heralds a paradigm shift uprooting the supremacy of the human (Oppermann, "From Posthumanism" 25).

This new ontology suggests that humans are also "biological agents" who cannot be excluded from the side-effects of the environmental problems they create (Chakrabarty, "The Climate" 206). The overlapping of (geo/bio)logical agential capacities of the human, therefore, blurs the division "between human and natural histories" (Chakrabarty, "The Climate" 207) and equates the human to some nonhuman, non-living agency who is neither subject nor an object – but simply a force that has the capacity to move things (Chakrabarty, "Postcolonial" 11, 13). Within this context, as "the geological timeline of the Earth and the chronology of human histories collide," it no longer becomes possible to draw sharp lines between the human/culture and the nonhuman/nature (Aykanat, "The British" 4). In this regard, far from increasing the gap between the human and the nonhuman, the Anthropocene alerts us to the reciprocal relationship between these agential forces. As Latour aptly describes in his article, "Agency at the Time of the Anthropocene" (2014):

> The point of living in the epoch of the Anthropocene is that all agents share the same shape-changing destiny, a destiny that cannot be followed, documented, told, and represented by using any of the older traits associated with subjectivity or objectivity. Far from trying to "reconcile" or "combine" nature and society, the task, the crucial political task, is on the contrary to *distribute* agency as far and in as *differentiated* way as possible—until, that is, we have thoroughly lost any relation between these two concepts of object and subject that are no longer of any interest any more except in a patrimonial sense. (15, emphasis in original)

Obviously, "the Anthropocene has also challenged our ontological and epistemological foundations by revealing how the environment is not to be understood from any single subject position but is instead a 'mesh' of many objects" (Johns-Putra 276). Therefore, having a general overview concerning the historical evolution of the Anthropocene is significant in terms of understanding the passage from the conventional premises of nature poetry to posthuman poetry. On the other hand, it should also be remarked that

notwithstanding the ongoing debates concerning the starting date of the Anthropocene, the term attains academic and public recognition following Crutzen's announcement in an international geology conference held in February 2000 that we now live in Anthropocene (Steffen, "Commentary" 486). To underline recent understanding of the human as a geological force whose imprints can be seen in the land, oceans and atmosphere of 'our' planet, the phrase "self-conscious Anthropocene" (Keller 1) has been coined to emphasise not only the physical but also the cultural setting that we are inhabiting today. Nevertheless, it proves functional to trace the chronological categorization of the stages of the Anthropocene, for it allows us to better understand the way in which humans and nonhumans have long been meeting in naturalcultural dimensions.

For the prevalent classification, the rising level of CO_2 accumulation in the atmosphere[19] is taken as an indicator that helps the scientists to monitor the progression of the Anthropocene (Steffen et al. 616). During the first stage of the Anthropocene, that is from 1800/50 to 1945, "the CO_2 concentration rose about 25 ppm" which was huge enough "to surpass the upper limit of natural variation through the Holocene[20]" (Steffen et al. 616). In its subsequent phase, named as the 'Great Acceleration,' (1945--2015) there occurred "a significant increase in the rates of human-induced environmental change" (Whitehead 144). As Otter explains, the second phase of the Anthropocene "is characterized by a swathe of phenomena including the explosion of novel pollutants from plastic to synthetic nitrogen, the emergence of megacities, and the steadily increasing concentrations of atmospheric greenhouse gases, which have pushed the planet beyond its Holocene climatic norms" (569). Providing factual details related to the increase of the greenhouse gases during this period, Whitehead states that

> [t]he Great Acceleration can be observed in relation to rising levels of carbon dioxide in the atmosphere, which has increased from 310ppm in 1950 to 400ppm today (half of the increase in anthropogenic carbon dioxide has occurred over the last 30 years), rising levels of dissolved, inorganic nitrogen (used as agricultural fertilizers) in the seas and increases in atmospheric sulphur dioxide concentrations. (144)

Starting from the late 20th century onwards, global warming, climate change and nuclear threats have long turned into inescapable and incontestable components of (non)human

life; hence, they have transformed "what till now were simply theoretical or existential problems into lived experience" (Johns-Putra 275). Thus, the current period (ca.2015--present) marks "the third stage of the Anthropocene" (Steffen et al. 618) in which humankind is on the verge of making an important decision: either to continue with its ego-centric attitudes or to replace them with an eco-centric understanding that facilitates an understanding of the human-nonhuman interdependency within a posthuman space. In this framework, no matter how and when the Anthropocene is thought to have started officially, "[t]he awareness that humankind has grown into a preeminent force in planetary nature—and all the associated questions about how to deal with this situation—is undoubtedly one of the most momentous events our species has ever had to cope with" (N. Clark, "Introduction" xiii). Similarly, Lynn Keller proposes that though the term Anthropocene "may or may not be formally adopted by the International Commission on Stratigraphy to designate the current geological epoch, the awareness that humans have come to be the dominant force affecting planetary systems now pervades our culture" (1). Hence, going beyond the humanist regulations that see the natural world as an object to be protected for the sake of humankind, it is argued that the terms posthuman space and posthuman poetry meet the need to recognise the limits of human authority in the light of "environmental and discursive transformations observed in the Anthropocene" (Aykanat, "Mnemonic Agency" 7).

Within this trajectory, Petrucci and Oswald have been chosen for two main reasons: (1) their above-mentioned works belong to the same historical period, namely the very end of the 20th and the first decade of the 21st century, so they prove functional in terms of displaying the emergence of an eco-consciousness related to the ecological issues of the Anthropocene that have started to be widely recognised from the beginning of the 21st century onwards; (2) when analysed concurrently, their poetry calls attention to the entanglement of human and nonhuman forces from a trans-corporeal and trans-dialogic standpoint, respectively. Epitomising the early examples of posthuman poetics, therefore, Petrucci and Oswald's articulation of the posthuman space in their works points to an eco-centric mode of relations that underlines the mutual embeddedness of every human and nonhuman being. Accordingly, while Petrucci's *Bosco*, *Heavy Water* and *Half Life* criticise the persistent plunder of the more-than-human world by foregrounding the

consequences of ecological crises such as deforestation, climate change, and the Chernobyl nuclear disaster, the poet also acknowledges the agency of the nonhuman matter since trees and radionuclides turn out to become active components in Petrucci's poetry.

Similarly, despite the fact that Alice Oswald is one of the poets that have been included in Peter Abbs's *Earth Songs: A Resurgence Anthology of Contemporary Eco-poetry* (2002), as well as in Neil Astley's compilation of ecopoems in *Earth Shattering: Ecopoems* (2007),[21] Oswald does not lament the disappearing natural world; she does not openly call for the preservation of the environment, either. Rather, as Livie argues, "Oswald is subtly condemning acts of environmental violence and destruction, which is in itself a very environmentalist stance" (par. 7). Still, as it has been maintained above, ecopoetry restricts the palette of the poet to exhibiting the negative consequences of ecological disasters, particularly. On this view, whether engaging with the deteriorating inner dynamics of the more-than-human world implicitly or explicitly in the Anthropocene, Oswald does not comply with the ego-centric innuendos of ecopoetics and/or environmental poetry because she rejects the centralised position of the human 'subject' around whom the nonhuman 'object' is situated. Challenging the anthropocentric views of agency, Oswald dissolves the voice of the lyric I/eye within a posthuman space of dialogic permeability where the more-than-human world is portrayed as a vital force in *Dart* and *A Sleepwalk on the Severn*. Displaying how the River Dart, as a nonhuman agential force, has the power to influence the lives and perceptions of human characters, *Dart* incurs a critical awareness concerning the co-habitation of human and nonhuman entities within a polyphonic meshwork.

As a follow-up to *Dart*, Oswald's second long poem, *A Sleepwalk on the Severn*, also demonstrates a posthuman space where the voices of the moon, the wind, and the human characters represent a dialogic pattern that is mainly influenced by the changing phases of the moonrise. Similar to the River Dart, here in *Sleepwalk* the moon shows agential capacities in that she influences the tidal dynamics of the River Severn and its human and nonhuman inhabitants while she moves through the different phases of the lunar cycle. Hence, I argue that *Dart* and *Sleepwalk* envision the human and the more-than-human

world as vital entities that constantly affect and are affected by one another. While the polyphonic intersection of human and nonhuman voices has been limited to the terrestrial beings in *Dart*, with the inclusion of the reflections of the moon, *Sleepwalk* widens the scope of posthuman space by taking the impact of celestial beings into consideration. Therefore, it is also suggested that *Sleepwalk* functions as a supplementary work to *Dart* in terms of broadening the range of posthuman space through illustrating the intra-planetary moon-earth-river dynamics – which, in essence, underscores the impossibility of perpetuating a subject/object duality within this intra-affective continuum.

Posthuman space is an extension of the term posthumanism which can be traced to the Macy Conferences on Cybernetics from 1946 to 1953 – where the permeability between the informational and material entities was first mentioned (Wolfe xii). Nayar asserts that "[t]he focus on information flows across human biology and the environment, machine and man in cybernetic theory marked a major blow to the idea of the unified and self-contained humanist subject, the human" (55). The basic concern of posthumanism, therefore, is the questioning and blurring of the boundaries between humans and 'other' entities – including both the animate (animals, plants, robotic bodies) and the inanimate beings (stones, rocks etc.).

Wolfe points out that posthumanism "comes both before and after humanism" (xv). It comes before humanism in that *posthuman*ism "names the embodiment and the embeddedness of the human" in its biological, social and technological sphere; nevertheless, it also comes after humanism "in the sense that *post*humanism names a historical moment" in which the alleged superiority of the human is destabilised in "technical, medical, informatic, and economic networks" (Wolfe xv, emphasis added). In this respect, posthumanism introduces a new conceptualisation of the human and undermines the human/nonhuman binary by pointing out the material embeddedness of all beings and drawing attention to the agentic capacity inherent in the nonhuman. So conceived, posthumanism acts as a destabilising force that problematises the so-called superiority of the human[22] and celebrates "a horizontal, rather than a hierarchical, alignment of the human and the nonhuman realms" (Dönmez, "Posthuman Ecologies" 1). However, as Wolfe explains further, it should be acknowledged that posthumanism does

not take issue with the human itself or postulate an understanding in which the human is completely rejected; on the contrary,

> far from surpassing or rejecting the human— [posthumanism] actually enables us to describe the human […]. It forces us to rethink our taken-for-granted modes of human experience, including the normal perceptual and affective states of *Homo sapiens* itself, by recontextualizing them […] since we ourselves are human *animals*, part of the evolutionary history and behavioural and psychological repertoire of the human itself. But it also insists that we attend to the specificity of the human […] by (paradoxically, for humanism) acknowledging that it is fundamentally a prosthetic creature that has coevolved with various forms of technicity and materiality, forms that are radically "not-human" and yet have nevertheless made the human what it is. (xxv, emphasis in original)

Seen in this way, the posthumanist approach, as explained further by Oppermann, "not only delegitimize[s] the central position of the human among other species by acknowledging the permeable boundaries of species in the naturalcultural continuum" but also "blurs the boundaries between humans and machines, as the other-than-human agency in posthumanist vision is not a biological category only" ("From Posthumanism" 25). Within this perspective, the categorical divisions between nature and culture, human and nonhuman, organic and artificial are replaced by a unifying perception that takes us "out of the maze of dualisms" (Haraway, *Simians, Cyborgs and Women* 181) and introduces a more inclusive and co-existential approach.

Posthumanism evidently poses a challenge to Cartesian dualistic thinking and replaces it with a non-categorical and inclusive perspective that challenges the exclusionary standpoints. According to Cartesian dualism, the existence of the human is based on a dualistic understanding that consists of the *body*/the matter and the *mind*/the soul binary and, this perception resulted in a mechanistic view of the material world that held sway for many centuries. In other words, supporting the idea that the human is the only being that operates on a dualistic existence – encompassing both the physical realm and the beyond – Descartes privileges human rationality over the nonhuman world. As a result, according to this vision animals are considered as soulless beings that are devoid of mental faculties and humankind is prioritized as a central figure endowed with the capacity to reason.

Doing away with dualities of mind and body, animal and machine in her projection of the cyborgs as "creatures simultaneously animal and machine" (Haraway, "A Manifesto for Cyborgs" 83), Haraway[23] forms a basis for "the concept of posthumanity as it would be theorised at the turn of the twenty-first century" (Aretoulakis 173). Opposing binary logic, Haraway breaks out from the labyrinthine structure of categorical divisions and guides the human into a posthuman space where all categorical separations between humans and nonhumans are deconstructed. As Haraway further explains in *Simians, Cyborgs and Women* (1991):

> Cyborg imagery can suggest a way *out of the maze of dualisms* in which we have explained our bodies and our tools to ourselves. This is a dream not of a common language, but of a powerful infidel heteroglossia. It is an imagination of a feminist speaking in tongues to strike fear into the circuits of the supersavers of the new right. It means both building and destroying machines, identities, categories, relationships, space stories. Though both are bound in the spiral dance, I would rather be a cyborg than a goddess. (181, emphasis added)

Never considering herself a posthumanist, Haraway says that "I am not a poshumanist; I am who I become with companion species, who and which make a mess out of the categories in the making of kin and kind" (*When Species Meet* 19). Still, Haraway's cyborg feminism dismantles the dualisms and binaries of traditional humanism and "summarizes in advance the posthumanist project of interrogating the regimes of classification" (Nayar 113). Pointing to the co-fluent and the co-emergent nature of the interfaces between the human and the nonhuman Haraway states that

> I love the fact that human genomes can be found in only about 10 percent of all the cells that occupy the mundane space I call my body; the other 90 percent of the cells are filled with the genomes of bacteria, fungi, protists, and such, […]. I am vastly outnumbered by my tiny companions; better put, I become an adult human being in company with those tiny messmates. To be one is always to become with many. (*When Species Meet* 3-4)

Haraway's novel look at species and the world facilitates "a radical posthumanism in which the category 'human' is one that is inextricably always othered: linked to, dependent upon, supportive of the other" (Nayar 38). In this respect, "rejecting the view of the autonomous subject and instead proposing a subject that is essentially intersubjective and intercorporeal" (Nayar 105) posthumanism posits the human as a

"node […] that is dependent upon several other forms of life, flows of genetic and other information, for its existence and evolution" (Nayar 106), and "poses a politics of response and responsibility toward all forms of life, toward difference" (Nayar 48). In a radical reworking of humanism, therefore, Nayar gestures towards critical posthumanist visions that start "with the assumption that the human incorporates *difference* in the form of other DNA, species and other forms of life, so that its uniqueness is a myth" (13, emphasis in original). In this rethinking of the idea of human subjectivity, posthumanism both rejects human exceptionalism (the idea that humans are unique beings) and human instrumentalism (that humans have the right to have dominance over the more-than-human world), and it offers a more inclusive understanding of life (Nayar 19). Related to this, normative subjectivity, "which defined and categorized life forms into 'animal,' 'plant' and 'human,' is now under scrutiny for its exclusivism, and it is this that more than anything else marks" the disbanding of hierarchical dualisms (Nayar 19).

It is the view of posthumanism that the human is not an outside observer that tries to understand nature; on the contrary, the human is able to understand nature because s/he is part of it, as Petrucci and Oswald demonstrate in their poems. In this context, it is important to note that posthuman poetry also foregrounds the agential capacity of matter itself. As Barad explains

> [i]n agential realism's reconceptualization of materiality, matter is agentive and intra-active. Matter is a dynamic intra-active becoming that never sits still—an ongoing reconfiguring that exceeds any linear conception of dynamics […]. Matter's dynamism is generative not merely in the sense of bringing new things into the world but in the sense of bringing forth new worlds, of engaging in an ongoing reconfiguring of the world. Bodies do not simply take their places in the world. They are not simply situated in, or located in, particular environments. Rather, "environments" and "bodies" are intra-actively co-constituted. Bodies ("human," environmental," or otherwise) are integral "parts" of, or dynamic reconfigurings of, what is. (*Meeting* 170)

As opposed to the humanist and traditional rendering of the relationship between the self and the other as *interaction*, Barad uses the term *intra-action* to refer to the non-hierarchical exchange shared by both parts. While the word interaction is likely to connote a hierarchical distinction between humans and nonhumans – prioritising one over the other – intra-action lays out a posthumanist perspective in terms of projecting a world of

becoming where neither the subject nor the object can hold an upright position. In this respect, as Barad suggests, "*agency is a matter of intra-acting; it is an enactment, not something that someone or something has*. It cannot be designated as an attribute of subjects or objects (as they do not pre-exist as such). […] *Agency is 'doing' or 'being' in its intra-activity*" (*Meeting* 178, emphasis in original). So conceived, Barad introduces an agential realist ontology that forms the basis of her posthumanist performative account of material bodies (both human and nonhuman) and challenges representationalism:

> This account refuses the representationalist fixation on words and things and the problematic of the nature of their relationship, advocating instead *a relationality between specific material (re)configurings of the world through which boundaries, properties, and meanings are differentially enacted* […]. This causal relationship between the apparatuses of bodily production and the phenomena produced is one of agential intra-action. (*Meeting* 139, emphasis in original)

As Nayar argues, Barad's agential realist ontology is "an important contribution to posthumanist thought because Barad seeks to demonstrate how discourses, material practices and meaning-making cannot be disentangled easily" (40). Bringing the material and the discursive side by side, Barad posits human and nonhuman bodies as agential apparatuses that exist within phenomena where the corporeal and the dialogic subject-object relations can be explored within a non-hierarchical platform as it is also posited by posthuman space(s). Barad further elucidates that "phenomena do not merely mark the epistemological inseparability of observer and observed, or the results of measurements; rather *phenomena are the ontological inseparability/entanglement of intra-acting 'agencies'*" (*Meeting* 139, emphasis in original). It is thus possible, as Yazgünoğlu states, to see "the universe […] as 'phenomena,' and everything in this universe is agential and trans-corporeal, intra-acting with other agencies" (28). However, it is also important to note that the unifying vision put forward by Barad's agential realist ontology and her concept of phenomena should not be interpreted as "a return to holism and to the notion of the whole earth as a single, sacred organism" as supported by Arne Naess's 'deep ecology'[24] and James Lovelock's 'Gaia hypothesis'[25] (Braidotti 84). What is problematic about these visions is the fact that they assume an essentialist and egoistic stance in terms of situating the non-human agents in their relation to the human only. For a vitalist and materialist posthuman thinker, this position is open to doubt in that it perpetuates the distinction between human and nonhuman since "it is based on a social constructivist

dualistic method" (84) and "promotes full-scale humanization of the environment" (Braidotti 85).

Such a close identification with the more-than-human world is dangerous since "it involves the possibility of destroying it" (Aretoulakis 179), by turning it into an instrument to be objectified – be it in the form of protection for the sake of the human or in the form of total exploitation by controlling its sources. Accordingly, forming a too close ecological connection pertaining to the human and the nonhuman can engender a short-sighted vision that hampers the necessary aesthetic distance between them, and it also results in a total demystification of the more-than-human world.[26] A truly ecological stance, however, "a 'really deep' ecology would try to retain the mystery, and thus respect the environment, by maintaining the [safe] gap" between humans and nonhumans (Aretoulakis 179). Thanks to this aesthetic gap, the human can no longer treat the more-than-human world "like an object to be 'consumed,' or experienced" (Aretoulakis 180).

Parallel to that, this study also draws on theories of space and place in order to validate this aesthetic/safe gap so that Petrucci and Oswald's representation of the posthuman space does not confirm an authoritative standpoint that ignores the inherent value of the nonhuman realm in their poetry. To start with, elaborating on the definitions of the terms space and place, Yi-Fi Tuan argues that

> [i]n experience, the meaning of space often merges with that of place. "Space" is more abstract than "place." What begins as undifferentiated space becomes place as we get to know it better and endow it with value. Architects talk about the spatial qualities of place; they can equally well speak of the locational (place) qualities of space. The ideas "space" and "place" require each other for definition. From the security and stability of place we are aware of the openness, freedom, and threat of space, and vice versa. Furthermore, if we think of space as that which allows movement, then place is a pause; each pause in movement makes it possible for location to be transformed into place. (6)

According to Tuan, there is a correlation between space and place in that place is an "enclosed and humanized space" (54). Within this perspective, space is seen as a more abstract notion in comparison to place, because only after the human interacts with space does it become a familiar location for him/her and s/he develops *topophilia* – originating from the Greek roots *topo-* (place) and *–philia* (love of/for) – which indicates "'the

affective bond between people and place or setting'" (*Two Essays* 4, qtd. in Bryson 11). Bryson argues that "ecopoets are also often place-makers, attempting to move their audience out of an existence in an abstract post-modernized space, where we are simply visitors in an unknown neighbourhood, and into a recognition of our present surrounding as place and thus as home" (11). Hence, the "poems become models for how to approach the landscape surrounding us so that we view it as meaningful place rather than abstract space" (Bryson 12). As Fisher-Wirth and Street also express, "[w]hat we humans disregard, what we fail to know and grasp, is easy to destroy: a mountaintop, a coral reef, a forest, a human community. Yet poetry returns us in countless ways to the world of our senses" and arouses "our dulled perceptions and feelings" (xxvii).

In other words, according to Bryson, poetry or any form of creative art functions as a medium through which meaning is ascribed to an abstract notion of space and thus makes it less immaterial. Bryson adds that "while most critics readily consider place in nature writing, space is usually denigrated […] rather than valued" (16). Inevitably, such a vision creates a sharp distinction between them, and causes space to be interpreted as the opposite of place, hence implying at placelessness/spaciousness (Bryson 16). As suggested by Tuan, spaciousness is "associated with the sense of being free" and it "means having the power and enough room in which to act," thereby enabling the human "to transcend the present condition" (52). Yet as Bryson further argues, "the freedom associated with spaciousness only *appears* to offer the means to master the world beyond us. In truth, as we move into space, we discover, ironically, the extent of our limitations, rather than our freedom" (17, emphasis in original). Therefore, space as an expanding force makes humans recognise their incapacity to know it comprehensively, and this recognition produces an attitude of humility – which is an important indicator showing the impossibility of understanding the ecological complexity of the more-than-human world. Such a vision enables us to maintain the aesthetic gap between the human and the nonhuman without prioritising one over the other. Accordingly, Bryson states that

> while the process of place-making is a vital activity in the work of ecopoets, we should realize that it is almost always balanced or, better yet, harmonized, with a healthy dose of *space-consciousness*, since to see oneself as a metaphorical place-maker is to be tempted also to see oneself as owner, or even literal creator, of the surrounding landscape. (18, emphasis in original)

Here, the vacillation between the perception of the natural world as a knowable place that is created by the poet and the recognition of its ultimate unknowability is ecologically meaningful in that it points to a broader vision in which neither the human nor the nonhuman can assume the position of a subject and/or an object. The synchronisation between the finitude of place and the boundlessness of space indicates what may be termed as the 'place-spaciousness' of the physical world and, hence, goes beyond the place/space binary. In this harmonious vision, "[p]aying close attention to the places in which they reside leads the poets to an increased awareness of the ecological interconnection between all the human and nonhuman inhabitants of that particular place" (Bryson 22). In this respect, "a healthy space-consciousness" indicates a humble position which "brings to light the inadequacies in human attempts to control, master, or even fully understand the world around them" (Bryson 22). The posthuman space(s), therefore, provide a similar liberation from the traditional hierarchical approaches to nature in that they both position the human as a member of the more-than-human world and yet also underscore the fact that nonhuman realm will always escape the attempts to explain, objectify or control it.

Hence, rather than imposing a categorical divide between place and space, the posthuman space designates a harmonious whole that embraces both "a sense of place ('domesticity')" which propels the desire to protect the land and the environment; and "a recognition of space ('wildness') [which] teaches us the need for humility in an incomprehensible world" (Bryson 21). As Bryson further explains, "this harmonization of place and space is actually the location where poetry takes place. […] In other words, poetry happens […] where place meets space" (21). Posthuman poetry therefore – unlike nature, environmental and/or ecopoetry – recognises the human and the nonhuman as beings that share the same posthuman space which is based on a mutual flow of non-hierarchical relations that encompass culture-nature, urban-rural, subject-object, self-other non-binaries. Thus, it can be argued that posthuman poetry defies the reductionist and the atomistic modes of perception which reduce everything into linguistic representations; rather, it proposes "a kind of compensatory or restorative experience, a return to a sense of things normally lost to a modern, allegedly alienated self-consciousness" (T. Clark 22). The posthuman poem, therefore, functions as a medium

through which the complexity of the relationship between humans and nonhumans is acknowledged without perpetuating a hierarchical divide between them.

As will be argued below, the posthuman space(s) in Petrucci's and Oswald's poetry, exhibit an awareness on the part of their poetry regarding both the importance of knowing the place and seeing the human as part of it as well as the recognition of the spaciousness (wildness) of the more-than-human world. It is an important shift in thinking in that rather than bracketing the natural world out and restricting it to a fixed location, the vacillation between its accessibility and unknowability introduces a much comprehensive and dynamic account of the world as a 'posthuman space' where the human and the nonhuman live and share a habitation on equal terms. In other words, Petrucci and Oswald present the "[e]nvironment […] not [as] a fixed thing, but a theoretical space of maybe, a thing marked by its ineffability" (Pearson 24).

Petrucci and Oswald seem to know, as Pearson suggests, that it is not possible to have a complete grasp on the more-than-human world because it is constantly transforming, never staying the same from one second to the next. Defying the limitations of linear thinking, therefore, this perpetual flux poses a challenge to "the idea of identities as fixed, as well as to the anthropocentric idea of agency as an exclusively human attribute" (Beaney 93). In this framework, the process of change affects the human and the nonhuman alike, thereby enabling the poets to look at a 'posthuman space of *becoming*.' Petrucci and Oswald's posthuman poetry, therefore, does not objectify, exploit and/or glorify nature, but provides a broader perspective in terms of engaging with a more "dynamic process of open-ended becoming" (Rigby, "Ecopoetics" 79).

Petrucci and Oswald develop relationships that have non-hierarchical connections, as suggested by posthumanism, in their poetry. This requires a posthumanist decentring of the human through a recognition of the spaciousness of the world around us – that it is impossible to know the nonhuman realm, perfectly. We observe, in Petrucci and Oswald, the posthumanist position that "as soon as we stop talking about nature we will paradoxically cease to objectify, exploit and, thus, pollute it. In addition, an ecology without a subject *or* nature is an ecology that puts neither humans nor the environment in

the limelight – and this is what makes it *really* ecological" (Aretoulakis 173, emphasis in original). Accordingly, their posthuman poetry prioritises the points of convergence that are based on interfaces, flows and exchanges situated "within an eco-philosophy of multiple belongings" (Braidotti 49).

This study identifies the representation of posthuman space(s) in Petrucci and Oswald's poetry, which tends to show the human as part of the more-than-human world, yet at the same time retains the necessary distance between human and nonhuman entities so that the nonhuman realm will always escape the attempts to explain, control or objectify it. Accordingly, the first chapter reads Mario Petrucci's poetry from a posthumanist perspective and argues that the posthuman space portrayed in his poetry designates the human as a corporeal entity located in a flow of non-hierarchical relations with the nonhuman. In *Bosco*, Petrucci presents the effects of environmental issues within a posthuman space where the human cannot be held exempt from the destruction that has been directed on the ecological balance. Similarly, in *Heavy Water* and *Half Life* Petrucci illustrates the trans-corporeal intra-actions between the human body and the Chernobyl nuclear plant by pointing to the unexceptional presence of the human as an embedded and corporeal entity.

The second chapter, so as not to restrict the intra-action between the human and the nonhuman to a corporeal ground only, focuses on Alice Oswald's projection of nonhuman entities as agentic forces that operate according to their own rules. In this regard, this chapter employs agential realist ontology within the spectrum of posthumanism to illustrate how Oswald presents a dialogic and polyphonic space where the voice the first-person pronoun, that is the 'lyric I,' is shaped through a confluent dynamic inhabited by human beings and the river in *Dart*. In this way, it becomes clear that Oswald goes beyond the notion of the poem as the dramatization of an individual consciousness; instead, she employs a non-anthropocentric perspective that embraces the agency of the nonhuman entities along with human forces. In a similar manner, problematising the subject/object hierarchy by tracing the physical and the emotional impact of the changing phases of the moonlight on the tidal waves of the River Severn, the wind, as well as the poet-figure and other human characters the poet-figure encounters in her excursions to the Severn Estuary

at night, *A Sleepwalk on the Severn* enables to register an eco-centric viewpoint that also takes the communicative capacity of the nonhuman realm into account. Compared to Petrucci's trans-corporeal vision that is based on a corporeal dynamic in his poetry, Oswald points to the audial presence of the nonhuman matter by creating an "Oswaldian meshwork" (Bristow, "Bioregional" 6) where the voices and reflections of the human and the nonhuman flow through one another in her poetry.

Accordingly, this study analyses Mario Petrucci's and Alice Oswald's poetry through the lenses of posthumanism and contends that both poets abandon human exceptionalism and demonstrate the permeability of the human and the nonhuman world – with respect to their material/corporeal and nonmaterial/dialogic intra-actions – by creating a posthuman space of becoming that replaces the dualistic ontologies of traditional humanism in their poetry. It has been suggested that contemporary poetic discourse needs a more comprehensive terminology that is not tainted by anthropocentric innuendos. While alternative expressions such as environmental poetry and/or ecopoetry have been introduced to designate a less anthropocentric stance, neither of them has been able to envision a truly posthumanist attitude that can do justice to the entanglement of the human and the nonhuman from an ecological dimension in the Anthropocene. Environmental poetry, for instance, is criticised for sustaining the underlying implication that is inherent in the word 'environ,' which suggests that humankind does in fact care for the more-than-human world because it is 'around' them; thus, humans once again validate their auto-centralised and anthropocentric mind-set (Bate, *The Song* 138). Ecopoetry, on the other hand, is marked by its biocentric tendency to recognise "the interdependence of all life on earth, the wildness and otherness of nature, and the irresponsibility of our attempts to tame and plunder nature" (Astley 15), as it draws attention to the current ecological crises that we are facing. Furthermore, ecopoetics cannot go beyond the "nostalgic and idealistic relationship to the world in which the city remains firmly set to one side" (Tarlo par. 17). Hence, this study shows the way in which Petrucci and Oswald go beyond the traditional presumptions of nature poetry, environmental poetry and ecopoetry – that are anthropocentric and ego-centric – and instead, they write within the eco-centric premises of the posthuman poetry that moves us 'out of the maze of dualisms.'

CHAPTER I

MARIO PETRUCCI'S POSTHUMAN POETICS: TOWARDS AN AGENT-CENTRIC PERSPECTIVE

> If a tree falls in a forest and no one is around to hear it, does it make a sound?
>
> —George Berkeley
>
> One night – in early darkness. When you are thinking of something else.   It will escape.
>
> —Mario Petrucci, "Envoy," *Heavy Water*

Mario Petrucci (b. 1958) as a poet seems to endorse the view that it is no longer possible to embrace an anthropocentric terminology because the posthuman perspective has already shattered the hegemony of the human over the more-than-human world and introduced a post-anthropocentric space where human and nonhuman beings are enmeshed with one another. This chapter, therefore, argues that Mario Petrucci in *Bosco* (1999), *Heavy Water: A Poem for Chernobyl* (2004) and *Half Life: Poems for Chernobyl* (2004) presents a posthuman perspective on the negative outcomes of the entanglement of the human and the nonhuman within a background of ecological crises that are mainly triggered by the ego-centric impulses of humankind. Instead of seeing humankind as the sole denominator of the anthropogenic effects, Petrucci represents a posthumanist vision that acknowledges the more-than-human world's agential capacity to react to the human intervention through climate change and global warming. For this end, presenting a posthumanist reading of the Anthropocene – which mainly indicates the human-induced environmental changes that have impacted the Earth – Petrucci's *Bosco* demonstrates an eco-centric critique that emphasises the fact that nonhuman agents cannot be interpreted as inert matters that remain inactive within a posthuman space. In a similar way, Petrucci's *Heavy Water* and *Half Life* represent the toxic consequences of the agentic properties of the radioactive particles that were released to the atmosphere in the aftermath of the Chernobyl nuclear disaster that took place in 1986. Underlining the

agency of radioactive particles' movements in and across (non)human bodies, Petrucci's *Heavy Water* and *Half Life* draw attention to the trans-corporeal traffic between humans and nonhumans. In this respect, *Heavy Water* and *Half Life* illustrate the porosity between the human body and the body of the more-than-human world by portraying the physical and the social impacts of the Chernobyl disaster on the Chernobyl victims. Hence, *Heavy Water* and *Half Life* offer a posthumanist re-assessment of the so called human/nonhuman separation, since they show that the human flesh and the flesh of the radioactive particles are biologically and socially intermeshed in a posthuman space.

Read through the lenses of posthumanism, which poses conceptual challenges to the anthropocentric vision, Mario Petrucci's posthuman poetry also elucidates the need to rethink our position in response to the emergence of the Anthropocene as a geological epoch that replaces the Holocene. The term Anthropocene defines the current timescale in which the impact of the human activities upon Earth's ecosystems has reached at such unprecedented levels that now humans have turned into geological agents. In other words, human interference with the ecological dynamics of the Earth has culminated in anthropogenic ecological crises that grow threatening all human and nonhuman life forms globally.[27] Demonstrating the negative results of the human impact on the natural world through deforestation and the Chernobyl nuclear disaster in his poetry, Petrucci urges us to think of humankind as *part* of a posthuman space of becoming. Within this perspective, rather than underscoring the human-centred perspective by fixating "on human agency to a degree that downplays the imperfectly understood, infinitely elaborate matrices of nonhuman agency" (Nixon 14), Petrucci addresses ecological concerns of the Anthropocene by underscoring the agency of trees in *Bosco* and radioactive particles in *Heavy Water* and *Half Life*. Hereby, Petrucci allows us to revisit the ontological dualisms to be able to disclose human and nonhuman interdependency in his posthuman poetry.

1.1. MARIO PETRUCCI AS A POSTHUMAN POET

Born "in Lambeth, London, to farming Italian parents who had fled Italy's war-ravaged Monte Cassino after World War II" (Carthew par. 29), Mario Petrucci is a prolific poet whose contribution to contemporary British poetry is original and comprehensive in its

scope.[28] After taking his Bachelor's degree in Physics at Cambridge (1980), Petrucci taught science in a secondary school. Then he got his PhD in Optoelectronics at University College London (1989) and completed his postgraduate studies in Environment and Literature Department of Middlesex University in 1995. His academic interest in the Environmental Studies has also been put into practice, for he has "also been an organic farm-hand" and a goatherd in Ireland (Petrucci, "Literature, Science" par. 3). Obviously, Petrucci is a poet who crosses the disciplines and welcomes hybrid and inter-disciplinary zones where sciences and arts interface. In this respect, as Petrucci himself also remarks, "[a]s an ecologist and lapsed physicist, I'm forever delving into the interfaces between poetry and ecology/ science/ war, and always through a variety of forms: with 'open-door' articles, as well as within the stanzas of poems" ("Literature, Science" par. 11). Hence, it is not surprising that Petrucci describes himself under many intersecting titles on his webpage: "poet, teacher, performer, scientist, ecologist, war poet" ("Mario Petrucci" n.p.). No matter how long the list is, though, Petrucci is a poet, and he appreciates the way in which poetry functions as a means of seeing through the labels prescribed, and of forming new connections. Thus, it can be said that, for Petrucci, poetry acts as a door opening far beyond what is seen on the surface and enables the exploration of deeper levels of meaning that collapses the disparities between binary oppositions. As a poet-ecologist, therefore, Petrucci inspires his readers to question their position within a posthuman space of becoming, and he implements an eco-centric vision that reads through the anthropocentric dualisms in his ecologically oriented works.[29]

Accordingly, Mălaimare explains that "[h]eterogeneity distinguishes the literary creations of Mario Petrucci. The poems […] call out in a number of different voices. They are the artistic experiments of a man of science. Through his inventiveness in various fields of the arts, as well as in ecology, Petrucci has succeeded in making his voice heard internationally" (107). However, regardless of the fact that Petrucci has published over twenty poetry collections along with various articles and interviews that dwell on such topics as ecology and poetry, academic research on his works is limited.[30] Hence, this study aims to contribute to the scholarly field by introducing a novel framework that will contribute to future research about Petrucci.

As an ecologist Petrucci is sensitive to the impacts of the ecological imbalance that has made itself more visible in recent years. Using poetry as a medium to raise an awareness concerning the current state of the Anthropocene, Petrucci's poetry moves away from traditional ideas of nature and reflects the most pressing ecological issues that concern all of us. In addition to drawing attention to the most alarming manifestations of the Anthropocene such as deforestation and the Chernobyl nuclear disaster in *Bosco*, *Heavy Water* and *Half Life*, in 2008 Petrucci was also commissioned by the UK Poetry Society to produce resource packs designed for students (year 9 and older), young adults, creative writing tutors and poets.[31] As part of this environmental project, Petrucci prepared three lesson plans that consisted of poems composed especially for the project, as well as others that had been reproduced from books and journals. Exploring a variety of approaches to ecology and nature, the study packs illustrate themes that include global warming, oil dependency, the extinction of species, deforestation, urbanisation, biomimicry, self-sufficiency, and the importance of developing an eco-conscious mindset to ensure the survival of upcoming human and nonhuman generations.

Petrucci does not present an overtly pessimistic picture; on the contrary, he approaches the issues from the standpoint of a poet-scientist and analyses the underlying causes first in his poetry. In this respect, Petrucci states that there are "three factors in society that hold back a fully creative contemporary consciousness that's in harmony with ecology: bad 'memes,' 'Radical Inertia' and 'Framed Questions'" ("The Grass" par. 2). A meme, as Petrucci further explains, "is a self-replicating unit, a recurring splinter, of culture," and it reflects the "assumptions, values and behaviours" of the society ("The Grass" par. 2). Radical Inertia is "a deep resistance to change, encountered when an existing way of doing or seeing things is ingrained in us," and Framed Questions "are questions with an agenda, posed so that only certain 'answers' are possible" ("The Grass" par. 2). As a solution to this "three-legged stool of trouble" Petrucci proposes that "poetry can saw through all three legs on which denial and unsustainability squatly sits" ("The Grass" par. 3). Focusing on the transformative power of poetry, therefore, Petrucci argues that "poetry often challenges the dominant ideology and stimulates radical shifts in perspective, cracking Framed Questions open with its forensic, interrogating insights and its plural/flexile trajectories through mind and heart" ("The Grass" par. 3). Hence, it is

possible to say that Petrucci's posthuman poetry has the capacity to enable the reader to think across the prevalent modes of thought that preserve the subject/object hierarchy. Extending the scope of the argument to the dissolution of the human and the nonhuman binary within an ecological network, it should be noted that for Petrucci "Relationship – this R-word" stands for "what ecology is" (Petrucci, "The Grass" par. 10), and this, in a way, shapes Petrucci's *ecological sense of poetry* […] *because in this approach to compositions things are connecting themselves like an ecosystem*" (Griffiths, "Interview with Mario Petrucci" par. 7, emphasis in original). Accordingly, as a poet who is not keen on labels and categories, Petrucci, in the same interview, reacts as follows:

> Well, wait… all those labels are in themselves deficient, because it's not "ecology" and it's not "environment." It's the whole of creation, consciousness, perception and utilities, and the causalities that link all those things up. Ecosystems don't think of themselves in terms of species. They exist in complex relationship to what the sources of energy and consciousness are for the creatures living at the level they happen to be at. And we're somewhere on that continuum. (par. 9)

Evidently, here Petrucci is pointing at a 'relational ontology' that gives precedence to a non-hierarchical form of connections "rather than isolated moments of existence" (Ergin 33). According to Petrucci, poetry functions as a means of "heightening our awareness of the detailed texture of perception, of private and collective thinking – by making the habitual and familiar unfamiliar" ("Literature and the Sciences" 1); otherwise, "we remain individually trapped in ourselves as we are, in our seemingly separate and disconnected selves" (Petrucci, "The Grass" par. 4). Therefore, in Petrucci's projection of a liminal space of becoming where we move from the idea of the human as an overbearing force upon the more-than-human world to the eco-centric perspective that underlines the mutual relationship between humans and nonhumans, it is possible to argue that Petrucci's posthuman poetics reads through the human-culture and the nonhuman-nature binaries and entails a non-anthropocentric vision. Within this context, Petrucci's posthuman poetry serves as an ecological critique against the perception of nature or the more-than-human world situated 'out there' – from which we have either distanced ourselves or have turned into a transcendental principle on which we have been projecting our frame of thoughts.[32]

In a posthumanist representation, however, the "natural world is no longer a romantic mirror for human emotions; rather, the nonhuman inhabitants of the world are our collective partners in the ongoing process of creating ways of knowing" (Welch 7). Thus, rather than preserving the distinction between the human and the nonhuman, Petrucci celebrates an "anti-Cartesian mode of poetry" which encompasses a posthumanist vision that does not make a hierarchical separation between "the language over here and the experience over there" (Petrucci, "Interview with Mario Petrucci" par. 6). In this way, rather than maintaining the distinction between the material and the semiotic realms and setting the language completely apart from the physical world – thereby continuing the nature/culture dichotomy; Petrucci's posthuman poetry moves beyond the anthropocentric implications of traditional nature poetry and highlights the need to focus on a more encompassing vision in which the human and the nonhuman are interdependent on one another. For Petrucci, the problem lies in the humankind's inclination to see themselves apart from the nonhuman world. He suggests that the ecological issues we face today reveal

> what's gone wrong with our relationship to ecology. We see ourselves as separate from it, as merely responding to changes in it, asking ourselves – how are we going to fix it?
> *So it's an instrumental thing?*
> Yes. Yes. We' are all Benthamites. But what ecology (or language, for that matter) needs is for us to get back into a right relationship with it, and live it as it is. And that means perhaps living it in a degraded mode over the next century, but being fully involved and immersed – let's not even call it "environment." ("Interview with Mario Petrucci" pars. 7-8, emphasis in original)

Therefore, instead of assigning a structural label to the 'more-than-human world' such as 'nature,' 'environment' or even 'ecology' that somehow restricts the extent of the relationship between the human and the nonhuman to that of the subject/object hierarchy, Petrucci's posthuman poetry evades "the problems of traditional place-based poetics and strategies" (Pearson 184) and represents a posthuman space of becoming where humans and nonhumans "exist in complex relationship" that cannot be pinned down by any forms of anthropocentric traces (Petrucci, "Interview with Mario Petrucci" par. 9). Thus, in Petrucci's posthuman poetics it is no longer possible to project the human as "merely a navel-gazing or colonizing monolithic force, as place-based identity can" (Pearson 5).

By the same token, Petrucci's posthuman poetry also moves beyond the dominance of a singular voice. As Petrucci explains in his introduction of the term *Poeclectics*,[33] "[a]s opposed to having *a voice*, poets seem increasingly to shift voice according to the formal, emotional and functional requirements of the work at hand" ("Poetry Workshops" par. 5, emphasis in original). Hence, "Poeclectics welds a powerful sense of 'making' (Greek: *poiesis*) to the desire to work inventively with a variety of sources and processes (*eklegein*: to choose out, select)" ("Making Voices" 66, emphasis in original). In other words, Poeclectics prioritises personal-creative identity. Still, it would be wrong to consider Poeclectics as a temporal tendency that hovers in the air without being able to introduce any coherent approach. In this respect, though it may be possible to see Poeclectics as an extension of Postmodernism or the avant-garde, it differs from them in that it suggests "a constantly-expanding set of activities more universal and historical than any historically-sited movement" (Petrucci, "Poetry in Performance" 2). In other words, Poeclectics goes against any "temporal associations by looking forwards, backwards, and all around, for what it needs" (2). As Petrucci further argues, "Poeclectics is a little like the author being able to tune and select, a large number of discrete 'voice channels' on a radio" ("Making Voices" 67). Therefore, instead of applying a fundamentally deconstructive reading that melts away the distinction between the self and the other, Poeclectics is more about the re-making and the re-construction of the self through adding to its "depth of openness to 'the other'" (Petrucci, "Making Voices" 67). In other words, through its inclusion of the 'excluded' voices, and thereby challenging the dominance of a single voice, Poeclectics paves the way for *poiesis* and re-asserts plurality by means of increasing the sensitivity of the self to the so-called 'other.' This is best expressed in the poems "Logwood" and "Dodona" in *Bosco* in that they redirect our attention to the dying trees that start addressing humans and accuse them of their ego-centric impulses.

Therefore, Poeclectic appropriation of the plurality in voice functions like lenses through which the self can interrelate and intra-act with the 'other' so that it becomes possible to introduce hybridity and porosity as alternatives to the static existence of the binaries such as human/nonhuman, culture/nature, urban/rural, self/other, centre/periphery, and subject/object. Accordingly, it can be said that, as an experimental practice, Poeclectics allows Petrucci to enlarge the scope of his posthuman poetry both in content and in form.

In other words, as a poet-ecologist, Petrucci designates the human as a component within a network of intra-actions with the nonhuman, and he facilitates a growing consciousness of the eclectic mix by enabling the poet to use a wide variety of texts, styles, voices and forms more freely on the page-space of his poems.

Within this spectrum, underlining the need to accommodate more experimental poetic forms to be able to challenge the textual fixity of the conventional poetic mediums, so that it becomes possible to facilitate a posthumanist understanding of "the hybrid 'naturalcultural' reality we inhabit physically and intellectually" (Nolan 9-10), Harriet Tarlo argues that "more dynamic, open form style of writing" ("Women" par. 28) can allow poets to "challenge the assumption that poetics is limited to its traditional manifestations" (Nolan 351). It is best observed in Petrucci's drawing attention to the spatial presence of the poem on the page via *Spatial Form* where the poet not only points to an intra-active form of relations between the human and the nonhuman thematically, but he also "makes use of the whole page-space" (Tarlo, "Women" par. 28) of the poem to elucidate the posthuman space of becoming stylistically. Put differently, for Petrucci both the texture (material/form) and the context (semiotic/content) of his poems work in line with the premises of posthuman space in that they go beyond the dualistic regulations and introduce a non-hierarchical mode of material-semiotic networks.

In other words, involving a shift towards a posthumanist vision, Petrucci's posthuman poetry emphasises the need to go beyond the "sentimentality, nostalgia and the dualistic divide between rural and urban, cultivated and wild, natural and technological all of which characterise the traditional pastoral," as well as nature poetry and/or romantic poetry (Tarlo, "Women" par. 16). Dwelling in a posthuman space of becoming that is marked by the dissolution of the hierarchical dualisms, the lyric I/eye of nature poetry is replaced by a "tangle of interwoven voices, genres, and literary traditions" (Ergin 86) that sets humans and nonhumans in an intra-active flow. In this posthumanist perspective, therefore, the posthuman poet cannot adopt an anthropocentric gaze that observes the nonhuman realm from a distance, but s/he gets completely involved in it. As Petrucci also suggests, "[t]he environment is everything, including me" ("Three hot drops" 257). So conceived, referring to Petrucci's resource packs on ecology, George Ttoouli underlines

the function of poetry as a means to step "outside of the box" and "open up new possibilities and potential for how humans can live in the world" (3). Hence, more than ever in history we need to "lift our eyes from the page[34] and to contemplate the world" (Bonnefoy 806) in its full vitality. Only then can we become aware of the dire results of our actions on the more-than-human world because

> [o]ur existence depends from one moment to the next on myriad micro-organisms and diverse higher species, on our own hazily understood bodily and cellular reactions and on pitiless cosmic motions, on the material artifacts and natural stuff that populate our environment, as well as on socioeconomic structures that produce and reproduce the condition of our everyday lives. (Coole and Frost 1)

Accordingly, Petrucci's posthuman poetry in *Bosco*, *Heavy Water* and *Half Life* enables us to think through the subject/object, human/nonhuman nomenclatures by foregrounding the idea that "[t]o be a subject is not to act autonomously in front of an objective background, but *to share agency with other subjects* […]" (Latour 5, emphasis in original). In a posthuman space of distributed agencies, Petrucci's poetry seems to suggest, as argued below, that humans should become aware of the disastrous ecological consequences of their intervention in the regular functioning of the Earth, because the more-than-human world can no longer be seen as an inert matter/object that waits to be configured. On the contrary, nonhuman entities re-act to and co-act with the human; thereby, they urge us to reconsider the collective role humans and nonhumans both play in the co-constitution of "the world's differential becoming" (Barad, *Meeting* 396).

In the light of what has been discussed so far, it is possible to identify certain points that appear in Petrucci's posthuman poetry. As a posthuman poet, Petrucci demonstrates a relational ontology according to which the human is just a member of a larger community that encompasses all living and non-living entities – ranging from radionuclides to more complex organic and/or inorganic matter. Thus, Petrucci criticises the objectified status of the material world which has long been regarded as an inanimate source to be exploited. Acknowledging the vitality of the nonhuman matter, therefore, Petrucci's posthuman poetry exhibits the human-nonhuman entanglement by actively engaging in the ecological issues of the Anthropocene. Envisioning a more sustainable and eco-centric form of living, while at the same time complying with the posthumanist perception

that recognises the more-than-human world "*in itself, not for human utility*" (Broglio par. 8, emphasis in original), Petrucci underlines the importance of this co-existence and criticises the short-sighted perceptions of the ego-centric human self who assumes to have total dominance over the natural world in his poetry. In *Bosco*, for instance, the criticism comes through the nonhuman voices that appear in the poems "Logwood" and "Dodona" where the trees try to alert humankind to the future consequences of global warming and climate change. Additionally, illustrating the dissolution of the corporeal divisions between human and nonhuman entities in the wake of the Chernobyl nuclear catastrophe, Petrucci also emphasises the agential capacities of the harmful radioactive chemicals that intra-act with human and nonhuman bodies in *Heavy Water* and *Half Life*. Petrucci's posthuman poetry, therefore, raises important questions regarding the well-being of today's and the future's (non)human entities.

1.2. REPRESENTATION OF THE POSTHUMAN SPACE IN *BOSCO*

First published as a pamphlet in 1999 and then in book edition in 2001 *Bosco* epitomises the earliest reactions of Petrucci to deforestation.[35] The collection consists of poems that explore the evolution and then the consequences of humankind's continuous disaffection from forests. Rather than displaying trees as the ultimate victims of this ecocide, however, Petrucci underlines the agential capacity of trees by including their response to the imbalance that has been enforced on the ecological system. The trees' response is not only engendered through the inclusion of their voice in the collection, but also through indicating a posthuman space where humans and forests are shown to have a reciprocal relationship. Hence, when the dynamics of this relationship is destroyed, the paradigms of human control and design are also destabilised by the complexities of global warming and climate change that have the capacity to generate unexpected impacts.

Therefore, I argue that foregrounding the detrimental consequences of turning a blind eye to the relational ontology which celebrates a non-hierarchical distribution of agency between humans and nonhumans, *Bosco* underscores the importance of a posthuman space of belonging[36] other than that of domination and of possessing. While doing that, the collection also explores the ecological value of forests in that as active nonhuman

agents they are indispensable elements sustaining the well-being of the planet. It is estimated that "tropical rainforests absorb over 1 billion tonnes of carbon from the atmosphere on an annual basis" (Whitehead 83), and thereby they help curbing the increase of the greenhouse gases – including carbon dioxide, methane, water vapour, and ozone – so that the side-effects of global warming can be kept at reasonable levels. Obviously, "[i]f we are to combat local air pollution, make even the slightest impact on global warming, enjoy our surroundings and share them with many other creatures, we need trees: trees here and trees now" (King and Clifford ix). However, as Fowles states in his "Foreword" to *Trees Be Company* (1989) humans – at the cost of their own lives – have long been harming forests:

> We all know that things are very bad for trees, indeed for all nature, and all over the word; which makes writing of their plight, or making anyone listen to it, near impossible. In *The Dream of the Rood*, one of the earlier poems in this anthology, it is made a glory of the tree that it constituted the Cross and so bore the body of Christ. But it is not Christ who is crucified now; it is the tree itself, and on the bitter gallows of human greed and stupidity. Only suicidal morons, in a world already choking to death, would destroy the best natural air-conditioner creation affords; as well cut our children's throats. (xiv)

Ironically, more to Fowles's surprise, humankind continues destroying trees[37] at a large scale in the 21st century. Hence, more than ever in history, we need to pay attention to "the importance of trees and woods by exploring their aesthetic, spiritual and cultural value as well as their ecological importance" (King and Clifford xi). Along similar lines, in *Being Ecological* (2018) Timothy Morton states that the second phase of the Anthropocene epoch "has now officially been dated as starting in 1945," and it marks the beginning of the last mass extinction period[38] that denotes the unavoidability of our current route about which Petrucci had warned us more than twenty years ago in *Bosco* (5). Thus, as a poet-ecologist Petrucci is able to bring the "pen of lyricism and observation" (Burnside and Riordan 20) together, and he has "something vital to say about the human relationship with the natural world" (21) in his poems. Speaking across the artificial divide between humans and nonhumans, therefore, Petrucci draws attention to less anthropocentric modes of being that signifies "the interlaced quality of life" (20) in *Bosco*.

This interwoven aspect of life is first observed in the title of the collection. *Bosco* means 'forest' in Italian; thus, it can be asserted that *Bosco* underlines the sense of unity and solidarity since the word 'bosco' does not connote a single tree but a group of trees that form the forest. Structurally, however, *Bosco* is divided into three sections which are entitled "Arboretum,"[39] "The True Service" and "Woodsmoke," respectively. "Arboretum" and "Woodsmoke" each consist of eight poems, while "The True Service" has a single poem of the same title. Each section is centred around a certain theme exploring "different kinds of loss associated with our estrangement from forests and the destruction of trees" (Petrucci, "Poetry: the Environment" n.p.).

"Entering the Forest," "Sapling" and "Snapshot" are the poems chosen for analysis in the first section of the collection, and they represent the posthuman conviction that humankind's gradual alienation from an ingrained sense of ecological enmeshment with the more-than-human world is disastrous. Starting with the birth of the human infant in "Entering the Forest," the poem describes humankind's physical disconnection from the original sense of unity which is represented through the mother's body. As the poem proposes, when the umbilical cord that connects the baby to the womb of the mother is severed the human self can take his/her first step into the material world and experience the initial implications of this separation. The following poem, "Sapling" portrays the further steps of the human infant – now a little boy – into the world of the grown-ups who have long forgotten about their ontological and physical connection with the nonhuman realm – which is represented through the forest all through the collection. The last poem, "Snapshot" depicts an aged man who has been living in a cottage in the woods but spends his days looking at the photograph that he took from his cottage window years ago. Towards the end of the poem, however, the aged man steps outside his cottage and re-connects with the natural world – the forest itself. When considered as a chronological trilogy through the images of the new-born baby in "Entering the Forest," the little boy in "Sapling," and the aged man in "Snapshot," the poems exhibit the evolution and then the ultimate dissolution of the anthropocentric gaze. In this way, *Bosco* critiques the materialist adult world which treats trees as inanimate entities to be exploited. However, on the other hand, the collection also foregrounds the fact that in its origin humankind is already connected with the natural world as it is exemplified through the aged man in

"Snapshot" who, eventually, 'remembers' that he is not the controller but a mere component of this posthuman space of becoming.

"Entering the Forest" is also the very first poem that opens up the collection. Right at the beginning of *Bosco*, the poem describes how the human self falls from the unity of the mother's womb to the divisive existence of an ego-centric worldview that has been lying at the root of the ecological problems we are facing today. Thus, the poem suggests that the birth of the human infant is not likely to bring hope and peace; instead, as the infant moves into adolescence, it will be further disconnected from its ecological roots – as it will be demonstrated in more detail below (Petrucci, *Bosco* 4-5).

The poems in *Bosco* are not experimental pieces that create a *synaesthetic* space where the poem, the reader and the environment are brought together to form alternative associations.[40] The poet does not draw attention to the shape of the poem in order to generate an image in the mind of the reader, either. Therefore, though experimental literary forms are not strictly exemplified in *Bosco*, it is still possible to witness the way in which Petrucci uses the page-space of "Entering the Forest" in order to display the estrangement that the human experiences – for the line "Then I fell" (Petrucci, *Bosco* 4 1) is separated from the rest of the poem:

> There was warmth, and water
> a beach that swaddled me with dark
> the quick rush and ebb of invisible surf.
> A distant tremble of voices.
>
>   Then I fell. (Petrucci, *Bosco* 4 1-5)

In the poem the pre-natal state is marked by warmth and affection because humankind has not yet entered the maze of dualisms; hence, its perception has not been tainted by the anthropocentric inclination to objectify nature. In this respect, Petrucci explains that "the birth of a child – but also the original birth of consciousness, self-awareness, our Blakean descent from oneness and innocence" puts an end to "our baby-like evolutionary era where we were absorbed in the senses without reflection" ("Re: *Bosco*" n.p.). Here, the fall of the human can also be interpreted to have Biblical implications in the sense that following the eating of the apple from the Tree of Knowledge in Paradise, Adam and

Eve sacrifice their unconscious and blissful state in Eden for a state of consciousness on Earth. However, as Petrucci himself also remarks what comes along after becoming 'self-aware' is "treating ourselves and the world as somehow utilisable, therefore ultimately expandable and no longer mysterious and/or sacred" (Petrucci, "Re: *Bosco*" n.p.). Ironically enough, as the poem shows, it is not the result of the 'self-awareness' but the 'self-ignorance' of the human, for s/he turns a blind eye to the fact that humans and nonhumans belong to the same posthuman space of becoming.

Considering the contemporary ecological crises that threaten all human and nonhuman entities in the Anthropocene, it would be a reductionist and escapist approach to long for that prelapsarian state where everything was in constant harmony. In this respect, the fall of the baby from the mother's womb does not necessarily entail a sudden severance of humankind's deep-seated connection with nature. Just like a tree that is rooted in the earth, the human, too, is ingrained within the womb, and this underlines the notion of embryonic connectedness in the poem. Thus, "Entering the Forest" describes the birth of the human being through a process of uprooting, which suggests that the presence of the umbilical cord already entails a sense of the original entanglement shared by humans and nonhumans alike. In this way, the poem purposefully blurs the distinction between the flora and the human infant:

> They are my roots, tenderly attached.
> I snare them.
>
> The familiar one pulls me close
> for gouts of warm-sweet wetness
> in the gullet, a firmament
> of pink and fragrance
>
> that turns sour in my maw.
> The rictus of a smile
> a lullaby in double time
> a yawn stretched out
>
> into the sigh of felling. (Petrucci, *Bosco* 4 12-22)

This is the moment when the umbilical cord that connects the baby to the body of the mother is cut. Drawing an analogy between the human and the tree, Petrucci chooses the word "felling" (*Bosco* 4 22) to illustrate the upcoming destruction that is to befall on the

woodlands, since the term also evokes the 'felling axe' which is used to cut down the trees. Following the disconnection of the baby from the unity of the womb, it is seen that humankind starts to reflect on itself as a separate being: "For the first time see / my hands – a vision of rods and cones, / half-moon perfection. My nails" (Petrucci, *Bosco* 5 35-37). This 'self-awareness,' however, indicates the initial states of the formation of the hierarchical division between the human and the nonhuman, and the speaker goes on to announce the traces of the destructive strength that this ego-centric perception is to endow him/her with:

> Through the fabric of branches glitters
> Sungold. I have the momentum
> of a species   nothing
> can stop me – (Petrucci, *Bosco* 5 38-41)

As a posthuman poem, "Entering the Forest" problematises the egocentric perception that justifies the destruction of the forests, but the poem does not state this criticism explicitly. To contrast with the self-elevated position of the human 'subject,' the page-space of the poem is used to introduce a small gap as a means of building a stylistic suspension in line 39 which reads "of a species   nothing" (Petrucci, *Bosco* 5 40). Following the gap, there comes the word "nothing" (Petrucci, *Bosco* 5 40) to indicate the fact that in a posthuman space the human self cannot assume such an anthropocentric vision for him/herself. The human is 'nothing' other than an element in a flow of intra-active relations with the more-than-human world. On similar grounds, though the speaker thinks that nothing can stop him/her, the use of dash at the end of line 41 suggests that the human is not as powerful as s/he believes to be, for s/he can be stopped:

> already, a blunted shape
> to the forest of possibility
> even now, tripping
> on mist
>
> fogbound. (Petrucci, *Bosco* 5 42-46)

As opposed to the glittering branches that are sungold and the declaration of the speaker that nothing can stop him/her in the previous stanza (Petrucci, *Bosco* 5 38-41), "Entering the Forest" concludes with a limited range of vision that hinders the movements of the

human. Here, the human is no longer described as a species that has the energy waiting to be unleashed; instead s/he is just "a blunted shape" (Petrucci, *Bosco* 5 42) whose penetrative power is weakened. As the final line of the poem – which consists of a single word "fogbound" (Petrucci, *Bosco* 5 46) – illustrates, the human's anthropocentric gaze is also distorted since s/he cannot even see where s/he is "tripping" due to the mist (Petrucci, *Bosco* 5 40-41). Therefore, it can be concluded that underlining the vulnerability of humankind before "the forest of possibility"[41] (Petrucci, *Bosco* 5 43), "Entering the Forest" ends up with the implication that we can no longer describe the nonhuman realm as a victim/object. In this respect, the poem underscores the posthumanist perception that the forest, though to be destroyed, will respond to human intervention through ecological disasters – which will be triggered by its absence – in the long run.

Using the terminology of plant life, the next poem "Sapling" furthers the analogy between the human and the flora by comparing the little boy to a small tree that grows roots in the forest. In this respect, "Sapling" serves as a good example of relational ontology that is shared by human and nonhuman entities. The poem is about a young boy who goes to his secret place in the forest and experiences an unmediated sense of unity with all the other trees. Through the eco-centric reflections of the young boy, the poem emphasises the posthumanist perception that makes no hierarchical distinction between the human and the trees. However, towards the end of the poem, the sound of the woodman's axe implies that similar to the way the umbilical cord between the baby and the mother is cut in "Entering the Forest," the bond between the little boy and the trees will also be disrupted by the ego-centric dispositions of humankind.

Accordingly, Petrucci states that "Sapling" is mainly about the loss of "childlike innocence and [of] connection with nature under imminent threat" ("Poetry: the Environment" n.p.). The threat is posed by the modern adult world which prioritises the all-powerful desires of the human 'subject' before the nonhuman 'other.' Contrasting the ego-centric impulses of the adult world with the little boy's deep connection to the forest, therefore, the poem concludes with an ominous warning: If humankind insists on destroying the forests, what waits for them in the end is nothing other than a destructive

seclusion that is to be initiated by "the first thin / clack of the woodman's axe" (Petrucci, *Bosco* 7 38-39), which obviously symbolises the process of defaunation in the Anthropocene.

The poem starts off describing the boy's waking up every morning and going to the forest, while his mother and father are asleep: "There is a glade / a secret place where / he sits […]" (Petrucci, *Bosco* 6 5-7). There, the boy goes on to intra-act with the woodland – without objectifying it. To illustrate, "his eyes sip/ small movements of earth / the clay knots of worms" (Petrucci, *Bosco* 6 9-11). Furthermore, in "Sapling," the young boy is not depicted as an outsider figure that simply observes the forest from a faraway position; instead, he gets completely immersed in this posthuman space. Similar to the way the worms are muddled with one another in a knot of relations, the boy becomes enmeshed with the movements of the earth – so much so that "[…] He grows roots / while the sun rises" (Petrucci, *Bosco* 6 13-14). Reminiscent of the way the embryo is rooted in the womb, the boy is also rooted in the earth, and thereby he gets linked to the other trees in the forest. His roots going deeper down into the earth, the boy, thus, becomes a constituent of nature, rather than its denominator:

> Here he can taste
> the newness of grass
> fill his ear's belly
>
> with spangles of finch
> the chitterings of squabs
> soft words from a wood-pigeon. (Petrucci, *Bosco* 6 19-24)

Clearly, the intra-action of the human with the forest is not just limited to the eyesight, for the little boy as a human being also 'hears' the cheeping of the birds and 'tastes' "the newness of grass" (Petrucci, *Bosco* 6 20). Within this multifarious network of sensory connections, therefore, it is not easy to make a precise division between the human and the nonhuman since the boy experiences an immanent association with the forest – to such an extent that the natural world starts to sound him out:

> A cuckoo's woodwind
> sounds him out.
> This entire forest creeps

> through his nostrils
> fills his head with light
> bright and true.   He knows (Petrucci, *Bosco* 7 25-30)

Although, the picture that is represented in "Sapling" prioritises the childlike innocence and underlines the human-nonhuman assemblage that has long been forgotten about, it would be wrong to say that "Sapling" points to an 'idealised' harmony. The poem's argument goes much deeper than the glorification of nature and continuing to render it as an object. Rather, Petrucci is more interested in displaying the outcomes of the dissolution of this relational ontology between humans and the forest, because the poem concludes with the boy's acknowledgement following the gap in line 30: "bright and true.   He knows / that soon he must go / to school. […]" (Petrucci, *Bosco* 7 30-32). Though it is not stated explicitly in the poem, here the school is introduced as an anthropocentric tool to disconnect the boy from his embryonic connection to the trees. In the following lines the boy's parents are also represented as forces that will bring the boy back to his senses: "[…] His parents will / put a stop to all this / nonsense. […]" (Petrucci, *Bosco* 7 32-34). Juxtaposing the boy and his parents, therefore, "Sapling" seems to prolong the Romantic conception of nature as pure and innocent, and society as corrupt and harmful since the "poem shifts into a sense of foreboding, of deep isolation (for both child *and* forest) symbolised by the 'solitary bark' [of a dog] and that closing, mechanical sound of a woodman's axe" in the end (Petrucci, "Poetry: the Environment" n.p., emphasis in original).

However, Petrucci's posthuman poetry does not necessarily entail a transcendentalist vision that furthers the sentimentalisation of nature as a phenomenon that is completely detached from culture. On the contrary, as a poet writing in the Anthropocene, Petrucci is well aware of the dissolution of culture/nature, human/nonhuman binaries within a posthuman space of becoming which challenges the reductionist views pertaining to the holistic evaluations of the more-than-human world. As Reddick also elucidates, "[n]ot only post-human criticism, but also cultural theories that examine the Anthropocene, destabilise binary or dialectical views of 'nature' and 'culture.' In the Anthropocene, […] the perceived boundary between the two is challenged" (29). Within this perspective, it is functional that instead of merely symbolising nature as an idyllic sphere, "Sapling"

presents both the positive and the negative outcomes of the entanglement of human and nonhuman agencies in a posthuman space. Thus, in the poem nature is not merely posited as an idealised ground but as a complex system of intra-active relations where "[e]cological processes embody an ever-evolving and non-deterministic co-existence of life and death, growth and decay, positive fulfillment and negative desire as entangled forces" (Ergin 31). In this sense, it is functional that the poem concludes with the sound of the axe, rather than a Romantic image:

> […] As he leaves
> he hears, distilled
> by far distance –
>
> the solitary bark
> of a dog, the first thin
> *clack of the woodman's axe*. (Petrucci *Bosco* 7 34-39, emphasis added)

Evidently, the poem's inclusion of the sound of axe along with "the chittering of squabs / soft words from a wood-pigeon" (Petrucci, *Bosco* 6 23-24) that have preceded it, recalls the American poet Juliana Spahr's (b. 1966) statement concerning her criticism of nature poetry. In her poetry collection *Well Then There Now* (2011) Spahr notes that nature poetry

> even when it got the birds and plants and the animals right it tended to show the *beautiful bird* but not so often *the bulldozer* off to the side that was destroying the bird's habitat. And it wasn't talking about how the bird, often a bird which had arrived recently from somewhere else, interacted with and changed the larger system of this small part of the world we live in and on. (69, emphasis added)

Similar to Spahr, who moves beyond the limitations of the conventional nature poetries, in its co-representation of the boy/the squabs along with the adult world/axe, "Sapling," as a posthuman poem, underscores the importance of developing a posthumanist vision that moves beyond the dualistic premises that have long been adopted by anthropocentric discourses. The little boy's eco-centric perception, therefore, functions as an example that should be put into practice before it becomes too late. Otherwise, as the poem indicates, humankind will be left stranded in a barren planet where it will be no longer possible to recollect the pieces of the atomised self.

Likewise, "Snapshot, which is the third poem chosen in this section, represents an anonymous male figure who lives in a cottage in the woodland. From the details given in the poem it is possible to say that he is an elderly figure who spends his days looking at the prize-winning photograph he took from his cottage window years ago. The poem does not initially tell us what the photograph is exactly about; instead, it describes how the picture has worn away in time. Hence, the aged man desperately tries to bring the memories of the past back. He first moves his chair to the wall and then to the window so that he can recollect the reflection of the original snapshot. Still, once he realises that the picture, as an artificial representation that freezes the moment, fails in bringing the true experience back to life, the old man decides to step outside of his cottage. Only then can the reader have a glimpse of the image shown in the photograph: "[…] a print / of his window, opening / onto an empty wicker chair" (Petrucci, *Bosco* 12 39-41). Here, the poem turns the expectations of the reader upside down in that other than a natural scenery, the snapshot depicts an empty wicker chair.

The old picture can also be read as a symbol of the way nature has been exploited and 'worn away' in the Anthropocene, since it has long been usurped by the anthropocentric gaze – both materially and conceptually. This is why the poem starts off with a sense of tension that makes the old man feel uneasy and discontented. Clearly, the world that he is familiar with is somewhat disturbed, and it makes the old man feel uncomfortable:

> Previously he had been content
> in his one wicker chair, its microsheaves
> of osier at his fingertips, gazing
> across the pitch of floorboards
> to the cottage window that looked out
> onto forest. He had his photograph. (Petrucci, *Bosco* 11 1-6)

As the poem unfolds, it becomes possible to better understand the reason lying behind the male figure's uneasiness: "Evenings, he would glide it [the photograph] / from his pocket, review the colours / by fireflicker […]" (Petrucci, *Bosco* 11 7-9). Ironically enough, rather than the forest that lies beyond his window, it is the photograph "[…] he snapped / through that window, one idle / afternoon. It was to win awards" (Petrucci, *Bosco* 11 10-12) that attracts the aged man's attention most. However, in time, the photograph has deteriorated, and it has lost the original impact of its lively colours:

> So picturesque. So real.
> A few framed branches
> blurred by the mist
> of condensation; a beam
> of sunshine brought to life
> by dust. But it grew foggy
>
> with time, the constant
> reviewings, photons' havoc.
> His attention erased it. (Petrucci, *Bosco* 11 13-21)

The snapshot is described to be "[s]o picturesque. So real" (Petrucci, *Bosco* 11 13). Here, through the picture, the poem also criticises the tendency to objectify a natural scenery as an enclosed place – which has clear affinities with the definition of the term landscape. As Taylor explains, landscape is defined

> as an expanse of scenery that can be seen in a single view. "Landscape" is also commonly defined as a depiction of scenery in a picture or painting, or as a branch of art. The term, first recorded in 1598, arose from the Dutch word "*landschap*," meaning "region, tract of land." It took on artistic overtones in English usage, where it came to mean "a picture depicting scenery on land." (146, emphasis in original)

However, since "[…] it grew foggy / with time, the constant / reviewings, photons' havoc" (Petrucci, *Bosco* 11 18-20), the photograph can no longer display the scene as vividly as before. Hence, the male figure starts looking for an alternative that will create the same effect of the original: "He moved his chair to the wall / where a glazed print of the original / reflected the window […]" (Petrucci, *Bosco* 11 22-24). He desperately looks for a compensation, but in the wrong places, because the print of the original snapshot also "[…] went / hazy with sunlight […]" (Petrucci, *Bosco* 11 24-25). So, as a desperate remedy

> he moved his chair to the window itself –
> but leaned too close, fogged it
> with breath. He could make out
> nothing. [...] (Petrucci, *Bosco* 11 26-29)

Here, through the limited perception of the male figure, Petrucci criticises the short-sighted vision of the human who cannot realise the fact that s/he is, in fact, part of a posthuman space where it is no longer possible to direct the domineering gaze on nature. Therefore, the photograph epitomises the tendency to exchange the real with its

representation, and humankind's ending up with leading an illusionary life that continues to close on itself – that is devoid of intra-active passages and creative depth. The old man's opening the door of his cottage, therefore, can be interpreted as his ultimate move to reconnect to the tenets of the ecological self, which has been illustrated through the human infant and the little boy, previously:

> […] So, he had had no option.
> The heavy oak of the door
>
> squealed reluctance, but he stepped out
> just the same, out among mouldering
> leaves – squinted into everything
> smeared, then to thick vapour
> suspended by coppice. […] (Petrucci, *Bosco* 11-12 29-35)

This is the moment in which the male figure steps beyond the established categories that prolong the subject/object, the human/nonhuman hierarchies. Embracing the sense of original connectedness portrayed through the new-born baby in "Entering the Forest" and the little boy in "Sapling," the old man in "Snapshot" eventually 'remembers' that he is, in fact, just a constituent of a posthuman space of becoming. From this moment onwards, his vision gets regenerated and he exchanges the ego-centric vision with that of an eco-centric one:

> […] A crunch
> at his heel. Located the cause
>
> in no time at all – bound by roots,
> framed by floury touchwood, pressed
> beneath glass: a print
> of his window, opening
> onto an empty wicker chair. (Petrucci, *Bosco* 12 35-41)

It is significant that the wicker chair, which symbolises authority and power, is described to be empty at the end of the poem. The old man is no longer seated in that anthropocentric position. Besides, while stepping outside of the cottage, he drops the photograph to the ground and stamps on it, thereby cracking the glass that covers the picture. In this regard, the poem also suggests that the old man takes his first step into shattering the codes of his former perception that has long been moulded by the alienating urges of the anthropocentric standpoint.

In these three poems, "Entering the Forest," "Sapling" and "Snapshot," in accordance with a posthuman restructuring of the relationship between humans and nature, we observe the complex dynamics of the non-hierarchical relationship between humankind and the forests through different phases. The first poem, as stated, introduces the relationship of a human infant to the outside world; then we have a little boy, and finally an aged man negotiating his impaired relationship with nature. The regeneration of this relationship is possible only at the end, with the experience of the old man. Hence, the first section of *Bosco* promotes the possibility of developing a biocentric approach that can negate the previously embraced hubristic treatment of the nonhuman agents so that the unwanted consequences of the ecological issues that continue rising in the Anthropocene can also be minimised. Nevertheless, the "clack of the woodman's axe" (Petrucci, *Bosco* 7 39) closing the poem "Sapling" works as a threatening warning that echoes throughout *Bosco*.

Hence, the second section of *Bosco*, "The True Service," which consists of a single poem of the same title, serves as an intersection point where humankind is to decide whether to continue blading the axe or to develop a posthumanist vision that recognises the interdependence of human and nonhuman forces. Yet, considering the devastating results of the disruption of the ecological equilibrium by the hand of humankind – which we see in more detail in "Woodsmoke," that is, the third section of *Bosco*, it can be said that starting with "The True Service" *Bosco* responds to the ecological issues of the Anthropocene such as climate change and global warming more directly. In this way, the collection helps us understand what has been truly happening to the natural world since, as nonhuman agents, trees are also represented to be reacting to this ecological imbalance. To illustrate, in the poem "The True Service," the newly cut tree 'speaks' through what the cutting of its trunk reveals to the human speaker. On the other hand, in "Logwood" and "Dodona," which are among the poems chosen for analysis in "Woodsmoke" section, the logwood tree starts calling on humankind directly. Representing the death of the last surviving oak tree which has been kept in intensive care unit in a futuristic setting, the poem "Dodona" also exhibits how the extinction of the last tree will bring humankind face to face with the devastating consequences of climate change.

As stated above, Petrucci's posthuman poetry not only presents the consequences of living in the Anthropocene but also takes the involvement of the nonhuman agency into account, and thereby lays emphasis on the idea that the nonhuman matter also responds to our intrusion. In this context, as Otter argues, Petrucci's poetry suggests that

> [c]limate, animals, machines, and cities cannot now be regarded as simply the passive backdrop of history, if indeed they ever truly were. They are also actors, even if they lack the intentionality and reflexivity that has made humans such profoundly effective geoengineers. History is now about the interactions not simply of humans with other humans but also humans with the entire earth system […]. It is at once biological, technological, and *geological*, no longer ontologically insulated from wider earth processes. (572, emphasis in original)

As Bauer explains in more detail, "[t]he effects of one group surely might be greater at certain points of time; but its effects are only realized through dynamic relationships among an *assemblage* of others" (409, emphasis added). Hence, while analysing the 'anthropogenic' causes of the climate change, it should not be forgotten that humans have always been "historically enmeshed with the tangible materialities of ecologies and geographies that have the potential to affect atmospheric conditions and climate as they relationally scale" (Bauer 409). Within this context, rather than increasing the gap between the human and the natural world by turning the former into a geological force that penetrates the latter, Petrucci's poetry points to the fact that "the terrestrial biosphere's relationships to greenhouse gas concentrations is mediated through an assemblage of plants, animals, bacteria and materials, agents of biological and ecological histories are simultaneously agents of geophysical history" (Bauer 413). Moreover, in Petrucci's presentation of the Anthropocene, humans do share in the consequences of their ego-centric impulses that have been paving the way for global warming. As Bauer further states, humankind's "contributions to global warming are only realized through a web of material relationships in which they have always been situated and have affected to varying degrees" (413). Accordingly, in Nixon's words, it would be a grave mistake to "equate human planetary impact with human planetary control, as either a possibility or an ideal" (13). Instead, far from the 'destroy it first and then fix it' mentality of the ego-centric vision, Petrucci is keen on presenting the Anthropocene as a geological epoch indicating the increasing negative impacts of the human on the environment. In this way, he seems to direct our attention to "the consequences of our collective action–and on how

we might still avert the worst" (Kolbert par. 22). Thus, as a posthuman poetry collection, *Bosco* issues a warning about the human planetary impact through focusing on the clearance of the woodlands in the Anthropocene.

In "Geology of Mankind" (2002), Paul J. Crutzen underlines how the increasing activities of humankind since the 18th century have culminated in the decline of the green areas which have a fundamental contribution to the carbon dioxide balance in the atmosphere:

> During the past three centuries, the human population has increased tenfold to more than 6 billion and is expected to reach 10 billion in this century. The methane-producing cattle production has risen to 1.4 billion. About 30-50% of the planet's land surface is exploited by humans. Tropical rainforests disappear at a fast pace, releasing carbon dioxide and strongly increasing species extinction. […] Fossil-fuel burning and agriculture have caused substantial increases in the concentrations of 'greenhouse' gases — carbon dioxide by 30% and methane by more than 100% — reaching their highest levels over the past 400 millennia, with more to follow. (23)

All the plants, including the giant trees as well as the tiny phytoplankton in the ocean, absorb carbon dioxide and release oxygen; thus, they help minimising the negative impacts of the greenhouse gases on the planet. Then, it is obvious that deforestation affects global environmental systems by triggering the rise in atmospheric CO_2. As a consequence of this rise, the ocean water, too, is influenced badly because the excessive levels of carbon dioxide make water more acidic. Hence, the carbon dioxide absorbing capability of the ocean plants is affected by this imbalance created in the system.

It was thanks to the studies of the Swedish chemist Svante Arrhenius in the 19th century that the ecological impacts of the accumulation of atmospheric CO_2 began to be realised (Whitehead 45). As Whitehead explains,

> trying to solve the mystery of the onset and retreat of ice ages, Arrhenius calculated that fluctuations in gases such as carbon dioxide in the atmosphere could trigger significant enough shifts in global temperatures to account for geological forms of global warming and cooling. Arrhenius had discovered the greenhouse effect. (44-45)

The greenhouse effect is mainly about the trapping of the Sun's heat by the greenhouse gases in the atmosphere so that the planet becomes a suitable place to live. Otherwise,

"the Earth's average temperature would dip to a life constricting -18 degrees Celsius" (Whitehead 45). Nonetheless, through deforestation and the burning of fossil fuels like coal and oil, the amount of the atmospheric carbon dioxide increases sharply, and this causes the Earth's atmosphere to trap more heat. As a result, the Earth warms up, and this sudden heating gives rise to the global warming that impacts all life forms negatively.

Evidently, as nonhuman agents, the forests contribute a lot to keeping the levels of the greenhouse gases in check. However, as Crutzen has also noted in "Geology of Mankind" the disappearance of the rain forests has been going on at an exceptional pace from the start of the 21st century onwards (23). In this context, although the poem "The True Service" describes the cutting down of a single tree, in the wider perspective the tree stands for a whole generation of flora. Hence, bringing the problem of deforestation along with the posthumanist recognition of the interdependence between human and nonhuman beings, the poem requires its readers to extend their vision beyond anthropocentric regulations. Accordingly, as a poem which deals with the environmental problems of the Anthropocene, "The True Service" underlines what Forrest Gander terms as "a reorientation of objectivity toward *intersubjectivity*" (11, emphasis added) through displaying the trunk of a newly cut tree – which is described as an all-hosting space where a great number of entities ranging from worms to birds and ants come together. Witnessing the interlaced quality of life that is made evident through the chunk of the tree that is lying before him/her, the human speaker undergoes a moment of illumination towards the end of the poem and realises that in a world of entangled relationships, where trees contribute to the well-being of the planet enormously, what humankind wants is nothing but more wood (Petrucci, *Bosco* 17 24).

"The True Service" starts with describing the collapse of a tree and the whispering sound that is most probably created by the tree's leaves as they all reach the ground: "Tree is almost silent – gives / only the traditional whispers / To speak fully would deafen" (Petrucci, *Bosco* 17 1-3). Here, the tree is not depicted as an object that gives shade in hot summer days or serves as an inspiration for the poet. On the contrary, it is a dying tree that is too real to be idealised. However, at the beginning of the poem the speaker cannot fully understand the reason lying behind the tree's reticence:

> I am ungrateful for this
> consideration, the simplicity
> of leaf and bole revealed to me
>
> from a distant brow, the ground
> that buries its mirror-image of roots. (Petrucci, *Bosco* 17 4-8)

As seen in the lines above, the human speaker is ungrateful for the tree's kindness – that it accepts its death silently. Moreover, for him/her the leaves and the trunk of the tree also appear to be unpretentious and insignificant from a distance. However, looking closely at the body of the tree lying before him/her, the vision of the speaker starts to evolve, and s/he grows understanding the fact that everything exists within a dynamic flow of co-constitutive relations. To illustrate, s/he feels amazed at the way in which this 'lifeless' log has been serving as a house for various nonhuman entities: "There are grubs beneath the bark / even birds do not know of, a tribe / of ants busy among the twigs" (Petrucci, *Bosco* 17 9-15). Belonging to an ecological community, it is impossible that the tree can isolate itself from a collective, posthuman space of co-existence. It exists together with the worms that live beneath its bark, as well as the ants that travel through its twigs, and even with the fledglings that have not yet taken their first flight (Petrucci, *Bosco* 17 10-14). At this point, the human speaker starts enquiring whether s/he will continue assuming an anthropocentric stance that reduces the nonhuman 'other' to the position of an 'object,' or will embrace the dissolution of the dualism between the human and the nonhuman by 'becoming other'[42] – and answers his/her own question, "If all this were to come alive / if I were to take it all in – / what, on earth, would become of me?," (Petrucci, *Bosco* 17 16-18) as follows:

> I would become an octopus
> of sense – out of water, forced
> to squirt about me an ink of fog.
>
> I would be as a tree –
> petrified. Finding all I want
> is wood, the axeman to swing his axe. (Petrucci *Bosco* 17 19-24)

In this way, the poem reminds the readers that humans need to use their capacity for empathy so that they might, at least, have a little glimpse of what it means to be a dying tree. Thus, changing the role of the speaker from 'subject' to that of the 'object,' and

blurring the hierarchical distinction between them, "The True Service" underlines the importance of re-establishing an eco-centric perspective that has long been ignored by humankind. Here, the human speaker, who stands for the whole humanity, can no longer direct his/her anthropocentric gaze on the forests, because with the help of an imaginative mind s/he manages to envisage him/herself to be a member of it.

Nevertheless, as stated above, humans are likely to fall behind in putting their reflections into action, because the ominous presence of the axeman is always in the background: "[…] Finding all I want / is wood, the axeman to swing his axe" (Petrucci, *Bosco* 17, 24) However, the poem does not clearly tell us whether the axeman will continue swinging his axe in the future or not. The important point is that by putting himself in the shoes of the tree and by relating to its silent suffering, humankind experiences a painful realisation. In this regard, the poem warns us against the terrible outcomes of the destruction of the relational ontology between human and nonhuman entities. So, by the end of "The True Service," the speaker realises that if the axeman continues to cut down trees, then just like the octopus that is forced out of water, he, too, will be forced out of air and will die. Accordingly, the poem helps us heighten our awareness concerning the extent of the damage we have been enforcing on the forests. It is also important to note that though the tree is described to be "almost silent" at the beginning of the poem since "To speak fully would deafen" (Petrucci, *Bosco* 17 1-2), it continues to 'speak' through exhibition, that is through what the cutting of its trunk reveals to the speaker.

As we have seen, *Bosco* underlines the original sense of connectedness shared by humans and nonhumans in "Arboretum" – through the representation of the human infant, the little boy and finally the old man who are all described to be a part of a posthuman space of becoming. Then in the second section, the poem "The True Service" goes on to respond to one of the most alarming ecological issues of the Anthropocene, and it urges us to question the ecological consequences of destroying the ecological equilibrium by continuing to cut down the trees. In the last section of *Bosco*, titled "Woodsmoke,"[43] however, the collection visions a futuristic setting where the disastrous after-effects of deforestation and global warming have reached unprecedented levels. The poems chosen for analysis in this section, namely "Logwood," "Dodona," "Deserted," and "Exodus,"

therefore, alert the reader to the possible ecocatastrophes that threaten all life forms in a posthuman space of becoming. "Logwood," for instance, represents a dying tree who can no longer keep silent and starts accusing humankind of their ego-centric engagements with the more-than-human world. "Dodona," on the other hand, is about the death of the last surviving oak tree that has been kept in life support unit. Finally, "Deserted" and "Exodus" illustrate how the last remaining bits of life on Earth are to be replaced by lifeless fossils, and how every human and nonhuman life forms are to become extinct.

By pointing to the agential capacities of the trees in *Bosco*, Petrucci's posthuman poetry allows us to acknowledge the nonhuman 'object' as more than a passive matter that is vital in essence. Accordingly, recounted from the perspective of a tree that reacts to the ego-centric habits of humankind, "Logwood" challenges the presence of a centralised human 'subject' who assumes an anthropocentric stance. Nevertheless, here it should be noted that, by attributing a nonhuman entity with a human-specific trait, Petrucci does not fall into the problem of representation – that the natural world continues to be signified by the human 'subject' and, thereby, it ends up with getting objectified. On the contrary, basing his argument on the poetic language's reliance on metaphors – that everything can become everything else, as well as the Poeclectics's challenge of the dominance of a single voice, Petrucci articulates a posthuman space of becoming where human-nonhuman and nonhuman-human non-hierarchies can be used interchangeably, and can also transform into one another. Thus, the poem "Logwood" starts with the tree's direct address to the human:

> You have me stumped. Severed
> to heat your blood.
> Charred out, my heart – blistered
> by bucketfuls of sparks,
> stinking out your grate. (Petrucci, *Bosco* 25 1-5)

The speaking tree, whose voice can be heard in the lines above, is a logwood tree that is native to Central America and West Indies. It was mainly used as a source of black dye. When the English got the control of Jamaica in the 17th century, its seeds were taken to England, and the tree began to grow in the mainland. Logwood has also been cut to construct fences, so it serves for may versatile purposes. ("Logwood" n.p.). However, in

the poem, other than the image of a natural source that is rendered as an 'object,' the tree challenges humankind to face the results of its destructive habits towards the forests in general. In this way, "Logwood" not only criticises the ego-centric perception of the humans, but also calls attention to their ignorance concerning the ecological outcomes of deforestation that leads to global warming in the long run. Considering the fact that the total amount of the carbon released into the atmosphere since the 18th century has reached "200 billion tones […] (that is approximately equivalent to the average weight of 41 billion African elephants!)" (Whitehead 45), and the clearance of the forests since 1950 "has been equivalent to the rates of loss that had occurred over the previous 6000 years" (Whitehead 82), it is not difficult to visualise the adverse results of global warming and deforestation. However, as the logwood tree conveys in the poem, humankind does not seem to take a serious note of what has been happening to the natural world.

The way the poem starts in such a direct manner reflects the human's almost mechanic inclination to cut and destroy the logwood tree, without minding the possibility that nonhuman entities can also have an agency. Thus, through stumping and severing the logwood to heat its own blood, humankind is, in fact, preparing its own end because in a posthuman space everything is connected to one another. The tree, in return, continues to make its point as follows:

> I was meant for smaller things
> than your conflagrations
> of thought: the mute wheedling
> of grubs, hyphae.
> Cool draughts of oxygen. (Petrucci, *Bosco* 25 11-15)

The tree, ironically, reminds humankind that it was neither meant to be turned into ashes nor to release carbon into the atmosphere. Rather, it was meant to absorb carbon dioxide, and to contribute to the well-functioning of the planet, which is much more important than the anthropocentric conflagrations of the human 'subject.' Criticising the tendency of the humans to find an excuse to justify their misconduct, the tree assumes that there should be a 'valid' reason behind the carbon release:

> But there is purpose in carbon
> a release

> to thicken the swart rind of your stacks
> seed black-heaped portions of cloud
> unravel a thin-skinned planet (Petrucci, *Bosco* 25 16-20)

The tree states that instead of trying to decrease the amount of the carbon levels released into the air, humans are interested in increasing the number of their wood sacks. With the rising levels of the black clouds scattered around the atmosphere, therefore, the Earth starts to get warmer. What is unravelled in the end, however, is nothing other than a thin-skinned planet that is unlikely to survive for long, because the human intervention also causes depletion on the Earth's protective layer of ozone. Hence, the tree suggests that by disrupting the relational ontology between the human and the nonhuman, humankind is not only preparing for its own end but that of nonhuman sphere as well. Accordingly, by drawing attention to the tree's agentic capabilities, "Logwood" problematises the anthropocentric mindset and points to the relational existence between human and nonhuman entities:

> – Yes, you move,
> but I moved also: through shape,
> niche. In small steps
> of fruit. I have loved
> what you loved – air
>
> fire, water. The sullen
> earth. Walking among my kind
> you know we cannot speak.
> Why, then, do you
> listen so intently? (Petrucci, *Bosco* 25 21-30)

Unlike the anthropocentric perception that creates sharp divisions between the human and the nonhuman, here the tree calls attention to the common points shared by both. Just like the human beings, the tree also 'moves,' as it is obvious in the way it grows branches and blossoms. More important than that, the logwood also 'loves' what the human has loved – air, fire, water, and the earth – thereby positing the eco-centric vision that all human and nonhuman entities are composed out of these four main elements. Hence, it is nothing other than a disastrous short-sightedness that prevents the human from realising the deep unity that is fundamental to all life forms. Thus, not only to criticise the ego-centric tendencies of the human 'subject' but also the anthropocentric perceptions of the conventional mediums that locate the lyric I/eye in the centre, "Logwood" concludes with

a question posed to humankind: "you know we cannot speak. / Why, then, do you / listen so intently?" (Petrucci, *Bosco* 25 28-30). As a posthuman poem, therefore, "Logwood" also criticises the dualistic terminologies of the Romantic vision which turns nature into an object to be consumed physically and aesthetically. However, as "Logwood" suggests, to be able to respond to the suffering of the trees in a genuine manner, humankind should be able to put their ego-centric inclinations aside and offer themselves "as a channel through which the Earth's voice and those of other species can be expressed" (Moore, par. 15).

Revealing the active role that an oak tree has been playing in maintaining the ecological balance throughout the human history, the next poem "Dodona," too, blurs the ontological division between humans and nonhumans. The poem compares the last surviving oak tree to a patient that is "kept on 'life support' by technical apparatus as part of a public show" (Petrucci, "Poetry: the Environment" n.p.). Here, "Dodona" not only underlines the ecological significance of the oak tree but also illustrates her spiritual and cultural value, because following the tree's death humankind loses its last hope to withstand global warming. Signifying the tree's cultural value, on the other hand, the title of the poem "Dodona" stands for the name of the ancient Greek oracle associated with the oak tree. In Greek mythology, Dodona is consulted by heroes, including Achilles and Odysseus as well as the historical figures such as Agesilaus, king of Sparta and the Roman emperor Julian (Cartwright par. 5). The oak tree is thought to convey oracles through the rustling of her leaves, and hereby revealing the prophetic knowledge to humankind. Later, however, the oracle of Dodona loses its reputation because the oracle of Delphi rises to prominence. Nevertheless, considered to be "*the oldest Greek oracle, dating to the second millennium BC, according to the Greek historian Herodotus*" Dodona holds an important place in ancient history (Sutherland par. 5, emphasis in original).

Hence, it can be argued that choosing the title "Dodona" for the poem, Petrucci forms a link between the future and the ancient past. While the oak tree was revered as an important cultural medium that could bear information about future, in the poem she stands for the 'glorious' days of the past when it was still possible to rehabilitate the

ecological problems of the Anthropocene. Now, as the poem delineates from a futuristic setting, the world has long crossed the climate danger threshold:

>   Too late, they see
> there was no logic in wood
> no need for it – except
>
> to shade them from the chimaera
> that begins to strike root
> ineradicably
>
> in their sleep. (Petrucci, *Bosco* 27 43-49)

Although Petrucci does not make a direct reference to global warming, for he thinks that "the poem demands an absence of that kind of rhetoric" ("The Grass" par. 7), in "Dodona" the image of the 'chimaera' can be interpreted to refer to the Sun's warming up the atmosphere and creating a 'greenhouse effect.' The association between the Sun and the chimaera is obvious in the sense that the chimaera is a mythological creature that is related to heat and fire. In Greek mythology, chimaera is described as a fire-breathing hybrid monster "resembling a lion in the forepart, a goat in the middle, and a dragon behind" ("Chimera" n.p). By the same token, it was also interpreted to have been a metaphor for a Lycian volcano, by the late classical writers ("Khimaira" n.p.). Accordingly, chimaera's association with hot weather is likely to stand for "the highest temperatures experienced in more than 1.2 million years, [thereby] creating a '*Hothouse Earth*' that humanity has never experienced before" (Steffen qtd. in "Point of No Return" par. 4, emphasis in original). Hence, as we see in the lines above, the poem draws attention to the irreversible impacts of the global warming. Resulting from the 'death' of a great number of trees, and the release of the greenhouse gases into the atmosphere, the Earth has long been heating up at a tremendous speed, and this has started to effect sudden climate changes[44] all around the world.

Oak trees are enduring species, so they are able to live for hundreds of years. Thus, it is ironic that in "Dodona" the last oak tree is described to be on the verge of dying, for she is not as powerful as before: "[…] The lobes / of her leaves grow / crisp and shrivel" (Petrucci, *Bosco* 27 32-34). Demonstrating humankind's desperate attempts to keep the

oak tree alive, the poem underlines the fact that the necessary precautions should have been taken beforehand, because now it is too late:

> Drizzles of atomised water
> daily wheedle her; still she suffers
> the haze of fumes, abhors
> their heat – defies all
> chemical incentives.
>
> And so they stand, and pay
> to watch. To listen. (Petrucci, *Bosco* 26 10-17)

As we see in these lines, the oak tree is taken into a life support unit where she is irrigated through a chemical process. However, she cannot survive in this artificial environment where she is kept away from the soil, so she defies the treatment which comes too late to the rescue. It is too late because, as it has been stated above, in this futuristic setting the climate change threshold has long been crossed and the flames of chimaera have grown too powerful to be kept under control. Therefore, humankind can do nothing other than 'watching' the dying oak tree, without realising that they are in fact witnessing their own death in progress. The children, too, come to 'watch' the tree, yet their presence cannot bring a sense of hope either:

> Now, all these children. Endlessly.
> And she so sick, nothing good
> to tell. Their little hands – pink
> watersnails pressed to her aquarium. (Petrucci, *Bosco* 26 23-26)

The oak tree has turned out to be so weak and vulnerable that now she is protected in an aquarium, hereby frustrating the children's need to 'contact' with her. Moreover, it also suggests that the oak tree has also lost its natural habitat, and as an endangered species she can no longer live in her natural environment, so she is displayed in an aquarium. Devoid of any physical and non-chemical connection with human and nonhuman life forms, therefore, Dodona's death can be compared to the passing away of a human being who is put into intensive care at a hospital. Thus, her death is described in similar terms to that of a patient whose heart stops beating – as announced by the computer signal:

> Too old to fight.

> No spring left. The lobes
> of her leaves grow
> crisp and shrivel. Afternoon
> passes like an era.
> Computer beeps – then emits
> the insistent signal. (Petrucci, *Bosco* 27 31-37)

Here, the poem calls attention to the fact that both human and nonhuman beings have a 'heart,' which can also be interpreted to stand for their agential capacity, and they breathe in the same posthuman space of becoming. Just as the way they die in a similar way, the poem implies that the oak tree and humans need each other to go on living. However, following the death of the last oak tree

> Shaft of the world tree[45]
> breaks
>
>   flashes of cameras
> a scuffle   bodies swept along like logs
> arms rolling branches (Petrucci, *Bosco* 27 38-42)

As Petrucci explains, "[t]he loss described in this poem is slow and agonising: the oak's extinction sparks an archetypal and spiritual disaster" ("Poetry: the Environment" n.p.). The disaster results from the dissolution and the breakdown of the ontology of connectedness between humans and nonhumans. Hence, as it can be discerned in the lines above, the page-space of the poem also reflects the collapse that has been brought about, for the lines do not follow a straight order from this point onwards. However, it is paradoxical that only after the irreversible collapse do humans realise that "there was no logic in wood / no need for it – except / to shade them from the chimaera" (Petrucci, *Bosco* 27 44-46). Still, as the poem warns humankind from a futuristic setting, where the last oak true has just become extinct, the chimaera has already begun "[…] to strike root / ineradicably / in their sleep" (Petrucci, *Bosco* 27 47-49). Therefore, the poem suggests that humans should be able to wake up from their sleep of ignorance and act accordingly. Otherwise, everything will be reduced to ashes by the fire of the chimaera, for global warming does not make any distinctions between humans and nonhumans, subject and object, or self and other. It destroys them all.

As stated above, in Petrucci's posthuman poetry, the human is not described as a mere observer but part of the more-than-human world. So conceived, the following poem "Deserted" describes the adverse impacts of impairing this relational ontology through the replacement of green areas by the cold silhouette of cities. In Petrucci's own words, opening "with the irony of concreted areas and asphalt strips (designed for cars) being called Greens, Walks or Roads" ("Poetry: the Environment" n.p.), the poem describes how humans exchange what is natural with the artificial rather effortlessly and carelessly. Similar to the oak tree that is kept in an aquarium in "Dodona," "Deserted" shows how people are locking themselves in an artificial simulation[46] that is, paradoxically enough, designed to invoke the effect of what is natural. In other words, similar to Dodona who has been uprooted from her natural habitat, humans easily exchange what is natural with the mechanical. However, the poem warns that despite their efforts, humans are heading directly to their own destruction:

> I use them too easily – lanes
> of motorways, the dodgy walks
> that turn to blackspots, roads
> that are riderless, their trees
> shorn like army haircuts (Petrucci, *Bosco* 30 1-5)

The trees have long been cut and replaced by the blacktops, and this situation undermines the need of touch/contact between humankind and the flora. Through deforestation and concretisation of the Earth, therefore, humans not only destroy nature, but also themselves. Nevertheless, as Petrucci explains, "[h]umanity, facing judgement, is stuck in impotent denial" ("Poetry: the Environment" n.p.):

> *My Lord, I couldn't see*
> *the signs. For fog. The asphalt*
> *wasn't mine – on my mother's life*
> *on the life of my child – I've had nothing*
> *but hard shoulders to cry on.*
> *Pre-stressed jungles to tramp.* (Petrucci, *Bosco* 31 30-35, emphasis in original)

In the lines above we hear the monologue of the human speaker who desperately tries to find an excuse to his/her exploitation of the nonhuman world. Only when the signs of ecological devastation are everywhere, does the speaker acknowledge that s/he could not see what was coming – for there was fog. (Petrucci *Bosco* 31 30-31). In this way, the

poem criticises the anthropocentric vision of humankind which has long been impairing a truly eco-centric approach that should have been put into practice long before. Obviously, the speaker tries to make his/her denial stronger by vowing on the life of his/her mother and child, while, in reality, the lives of all generations are on the edge of extinction. From this point onwards, the poem "moves irresistibly towards a barren vision in which entire planets succumb to urban sprawl" (Petrucci, "Poetry: the Environment" n.p.). As the speaker states, in contrast to the image of the wind that is usually associated with breeze and/or storm, it is now full of dust so much so that it feels like smoking other than breathing (Petrucci, *Bosco* 31 37-39), thereby indicating the rising levels of atmospheric pollution in the poem. Still, the speaker does not seem to mind what is happening; on the contrary, s/he accepts the fact that the loss is irreversible:

> Never mind
> It's fine
> Between strata of streets
> I fossilize (Petrucci, *Bosco* 30 40-43)

Hence, "[t]ogether, the poem's title ["Deserted"] and the phrase 'I fossilize' suggest that the loss here is total: our species; life itself" (Petrucci, "Poetry: the Environment" n.p.). On a similar note, Petrucci also underlines the fact that the extent of the loss is much wider and deeper than it was thought to be. Indeed, the poem ends on a warning note that shows not only the concretization of the Earth but that of the Moon as well: "The earth / is concrete / The moon / a crescent of cement" (Petrucci, *Bosco* 31 46-49). Here, the poem also alludes to the human-induced pollution of space, which is likely to result in the Moon's getting covered by asphalt in the future. Nevertheless, one does not need to look far into the future to realise the upcoming threat, because starting from the second half of the 20th century onwards, humans have also been polluting the Earth orbit, and space. As Shenyan Chen explains in "The Space Debris Problem" (2011):

> Since the launch of the first artificial satellite, *Sputnik 1*, on October 4, 1957 over four thousand rockets have sent more than six thousand payloads into orbit, greatly improving the world's capacity to retrieve, transmit, and share information. Unfortunately, space activities have produced large quantities of discarded equipment, rocket upper stages, defunct satellites, bolts, and other hardware released during the deployment of satellites, as well as fragments from the breakup of satellites and rocket upper stages. (537)

The space debris "can range from a detached screw to an entire dislodged booster" and they can be risky for the astronauts on a space walk, as well as for the Earth's surface since they may even cause satellite crashes (Tallis 87). In 1978, for instance, "a Russian spy satellite (Cosmos 954) failed to separate from its nuclear reactor before reentry. Consequently, the Canadian arctic was littered with radioactive debris from the satellite crash" (87). Obviously, space debris not only endangers the beings in the outer space but also human and nonhuman entities on the ground (Mirmina 652). Depicting the concretization of the Moon, therefore, "Deserted" highlights the fact that the multiple interchanges between human and nonhuman agencies are not only limited to the Earth, but they also encompass the outer space. Hence, widening the scope of the posthumanist perspective, "Deserted" shows that just as the presence of humankind 'impacts' nature; as a potentially reactive force, whole universe, too, is able to respond to the anthropocentric regulations of the human self.

Similarly, presenting a comprehensive view of the ecological issues of the Anthropocene, "Exodus,"[47] which is the last poem that closes *Bosco*, consists of three parts that depict the flight of a bird – as to be further analysed below. Still, first it is significant to understand the poem's structural and contextual position within *Bosco*. Forming a symmetrical link with the very first poem of the collection, that is "Entering the Forest," "Exodus" connotes a foreboding sense of departure, which suggests the extinction of all human and nonhuman life forms on the Earth. Nevertheless, in the light of the poems analysed so far, it is realised that *Bosco* does not display a gloomy picture right at the beginning. It starts off with the intention to help the reader remember that humans are not the ultimate controllers of the more-than-human world; instead, they belong to a posthuman space shared by human and nonhuman agents. Then, in the second section "The True Service," the clack of the axe that was first heard in "Arboretum," assumes a full representation through the chunk of a dying tree that has been cut down. In the final part of the collection, however, the reader confronts the devastating outcomes of humankind's reckless treatment of the forests in the most direct way possible since they witness the death of the last surviving tree. Accordingly, epitomising all of these three phases in one single body, "Exodus" brings the reader to visualise the true extent of the destruction that deforestation and the consequent climate change will bring upon life.

In the first part of "Exodus," the bird is described to be rising above the forest until the trees turn into mere dots as she continues fluttering her wings. Then, in the second part, the bird flies ahead of the setting sun, and finally in the third part she reaches the altitude of space where she can see everything. However, here the bird finds out that she has long turned into a fossil (Petrucci, *Bosco* 33 25-26). Through the panoramic vision of the bird, therefore, "Exodus," enables us to look at ourselves as seen from the space, and challenges us "to understand the world at much larger and much smaller scales than before" which in return "requires us to extend our restricted anthropocentric vision to think in scales of" posthuman space. (Keller 33).

Besides, the poem's being divided into three parts demonstrates the probable consequences of humankind's gradual estrangement from nature. The first part, for instance, indicates the increasing level of deforestation since the forest has long turned into "a broken island of moss" (Petrucci, *Bosco* 32 6), and this imbalance created in the system is to impair the level of the vital gases in the atmosphere, thereby triggering climate change. In the second part of the poem, the negative consequences of the climate change have long turned the Earth into an uninhabitable site, so the bird desperately tries to flee from it by struggling to fly higher. The third part of "Exodus," on the other hand, enables the reader to have an ultimate view over the catastrophic state of the Earth, as the flying bird finally reaches the altitude of space in a futuristic setting (Petrucci, *Bosco* 33 19-21). There, the bird not only meets her own death, but that of all human and nonhuman beings since everything has become extinct (Petrucci, *Bosco* 33 32-35). Hence, "Exodus" emphasises the fact that the only way for survival in the Anthropocene lies in adopting an eco-centric awareness. As a posthuman poem, therefore, "Exodus" tries to inspire this awareness by foregrounding the cost of humankind's engrossment in this fragmented and ego-centric world view:

> Uneven barbs smooth out –
> a shiver of wingtips
> stills. She is carbon
> black. Utter fossil. (Petrucci, *Bosco* 33 23-26)

The sunbird that flies above the forest in the first part of the poem turns into a magpie "beating on rarefied updraughts" (Petrcucci, *Bosco* 32 11) in the second part of "Exodus."

However, in the third part of the poem, the bird can no longer fly, because she has become fossilised. Thus, "Exodus" and *Bosco* conclude portraying the waning of the last trace of life:

> Only an eye glints
> – diamond. Predictably
> it dulls to graphite.
> She enters the gob
> of the Crab. Unheeding
> the nebular, extinctions
> behind her – the last twinkle
> of that jaded spark
>
> turning grey. (Petrucci, *Bosco* 33 27-35)

As the closing lines above suggest, it is not only the trees that are becoming extinct, but also the birds, and finally humankind. With the death of the last tree, the remaining melodies of the birdsong will also disappear and "[…] the last twinkle / of that jaded spark [will be] / turning grey (Petrucci, *Bosco* 33 33-35). Criticising the egocentric impulses of humankind, therefore, *Bosco* illustrates the posthumanist perception that the human is not an exceptional entity but an assemblage that intra-acts with other nonhuman beings. Underlining "the entanglement of human fate with that of other species" (Keller 239), therefore, Petrucci's posthuman poetics challenges the culture/nature, human/nonhuman binaries and foregrounds a posthuman space to demonstrate the agential capacities of both human and nonhuman forces.

1.3. REPRESENTATION OF THE POSTHUMAN SPACE IN *HEAVY WATER: A POEM FOR CHERNOBYL* AND *HALF LIFE: POEMS FOR CHERNOBYL*

As it has been discussed through the representation of the posthuman space in *Bosco* where the clearing of woods and forests has triggered climate change that puts all human and nonhuman life forms at risk of becoming extinct, *Heavy Water: A Poem for Chernobyl* (2004) and *Half Life: Poems for Chernobyl* (2004) also demonstrate how the concept of the Anthropocene work in accordance with the premises of posthumanism.

The Anthropocene as suggested by Richard Kerridge "is a duck-rabbit. Looked at one way, it calls on us to accept that there is now no alternative to a much more concerted effort to engineer the climate and other ecological processes. Humanity has to embrace its lonely role" ("Foreword" xiv-xv). However, as the random designs of the nonhuman agencies – such as the radioactive particles – illustrate, Petrucci in *Heavy Water* and *Half Life* epitomises the enmeshment of human and nonhuman bodies by tracing the trans-corporeal and the socio-cultural after-effects of the Chernobyl nuclear disaster. Hence, as Kerridge further argues, "from another viewpoint, human capacity is diminished by the spectacle of the sheer magnitude of the consequences we did not see" ("Foreword" xv). Within this spectrum, Petrucci's posthuman poetry plays an important role in creating a posthuman space of becoming where "we are clearly embedded in ecosystems inhabited and constituted by numerous nonhuman" agencies (Kerridge, "Foreword" xv). Emphasising the agential capacities of the radionuclides that intra-act with human and nonhuman bodies, Petrucci's *Heavy Water* and *Half Life* draw our attention to the porosity between human bodies and the radioactive particles within a posthuman space, and they urge us to question the anthropocentric classifications of the human and the nonhuman as separate entities in the Anthropocene. In comparison to *Bosco*, where the idea of shared agency has been exhibited through focusing on the outcomes of the imbalance triggered by the rise of the carbon dioxide levels in the atmosphere – the effects of which can only be realised gradually – in *Heavy Water* and *Half Life* Petrucci exposes the toxic legacy of the Chernobyl accident which not only influences its victims right on the spot but also endangers the health of the unborn generations. Deploying a posthumanist perspective in the sense that *Heavy Water* and *Half Life* illustrate the unpredictability of the unwanted events constituted by the agency of the nonhuman actants, I argue that the traditional parameters of human authority have been challenged in Petrucci's posthuman poetry.

Heavy Water and *Half Life* are "a diptych of books, two facets of a single, extended poem" and they were "launched, together, on 26 April 2004, to mark the eighteenth anniversary" of the Chernobyl nuclear disaster (Petrucci, "Three hot drops" 255). Hence, "these two volumes are best understood as siblings, part of one extended familial poem" (Petrucci, *Half Life* 6) that should be read and analysed together. The collections are inspired by the interviews made by the Nobel prize winner Belarusian author and journalist Svetlana

Alexievich in her book *Voices from Chernobyl: The Oral History of a Nuclear Disaster* (1997). In *Voices*, Alexievich tells the true stories of the Chernobyl victims, including "people who were evacuated in 1986, family members of deceased Liquidators, sick patients and their families, and people who have returned to their evacuated villages" (Kalmbach 142). Having started to collect the interviews in the early 1990s and completing them in 1996, Alexievich does not include any editorial commentary; instead, she lets the voices "tell their stories in the form of monologues – sometimes nine to ten pages, sometimes only half a page" (142). However, hers was an endeavour to which "no acknowledgement can do justice" since Alexievich "was irradiated as a result of her work" (Petrucci, *Heavy Water* 5).

During the writing process of *Heavy Water* and *Half Life*, Petrucci retreats to his study for two months and reads a section from *Voices* every day. As a response to the voices of the Chernobyl victims, Petrucci composes "82 pieces which he soon realised were all parts of one long poem" (Carthew par. 17), that constitutes the "material expression of the collective human self" (Petrucci, "Three hot drops" 258). Petrucci acknowledges that he is an informed observer of the happenings related to the Chernobyl disaster, but as he further states: "As a 'lapsed physicist' I know Chernobyl is still active. Active in the air we use to speak about it, in the blood we use to think about it. I feel infected, and inoculated by it" (Petrucci, "Literature, Science" par. 40). Having been illuminated by *Voices*, therefore, Petrucci sets out "to reclaim lost voices"[48] of the Chernobylites, while at the same time realising the fact that "we were all infected by Chernobyl. It continues to be active, to activate" (Petrucci, "Chains of Transformation" 2). In his poems concerning the Chernobyl catastrophe, Petrucci moves beyond the hierarchical division between the Chernobylite and the non-Chernobylite beings and creates a posthuman space where everything is affecting and affected by each other in a constant flux. Therefore, in *Heavy Water* and *Half Life*, Petrucci clearly underscores the vulnerability and the porosity of the human in the face of harmful chemical agents, but more importantly, his poems also question the attitudes that ostracise the victims of the Chernobyl disaster and try to disconnect them from the rest of the world. Such attitudes are mainly shaped through the concept of 'Framed Questions' which, as Petrucci has suggested, is one of the factors that prevents the society from attaining a creative

contemporary consciousness that's in tune with ecology ("The Grass" par. 2). The significant thing about the Chernobyl disaster is that it is an epitome of porosity, and it sharply destroys the borders between the human and the nonhuman matter. Displaying an awareness concerning the indivisibility of the long-held binaries such as here and there, human and nonhuman, Petrucci's posthuman poetry cracks the "Framed Questions open" ("The Grass" par. 3) and postulates "posthuman environmental ethics [that] denies the human the sense of separation from the interconnected, mutually constitutive actions of material reality" (Alaimo, *Bodily* 157).

Accordingly, in this section of the chapter, the discussion draws on theories of "Post-humanist new materialisms" (Alaimo, "New Materialisms" 282) that takes the material agency of the nonhuman actants into account, as it will be employed through following the degenerative impact of the radionuclides on the material human self in *Heavy Water* and *Half Life*. Similarly, Stacy Alaimo's exploration of "the interconnections, interchanges, and transits between human bodies and nonhuman natures" (2) through her introduction of the term 'trans-corporeality' also informs my argument that *Heavy Water* and *Half Life* do not give centre-stage to humans; instead, they represent humans as corporeal and fluid entities that are in constant intra-action with the more-than-human world. In this vision, Alaimo profoundly alters the view of an autonomous human subject, and she underscores "the recognition that 'the environment' is not located somewhere out there, but is always the very substance of ourselves" (4). Hence, as Alaimo further argues in her article "Oceanic Origins, Plastic Activism, and New Materialism at Sea" (2014), trans-corporeality projects "a new materialist and posthumanist sense of the human as perpetually interconnected with the flows of substances and agencies of environments" (187). So conceived, it becomes difficult to objectify nature as a passive entity that is either exploited or glorified by the human, "since 'nature' is always as close as one's own skin" (Alaimo, "Trans-Corporeal" 238). By the same token, what has long been imagined as "inert, empty space or as 'resource' for human use" is now shown to be "a world of fleshy beings, with their own needs, claims, and actions" (Alaimo, "Trans-Corporeal" 238). Accordingly, indicating the traffic of intra-actions between human corporeality and the more-than-human world, "trans-corporeality opens up an epistemological 'space' that acknowledges the often unpredictable and unwanted actions of human bodies, nonhuman

creatures, ecological systems, chemical agents, and other actors" (Alaimo, "Trans-Corporeal" 238). As Alaimo also propounds, the space that is opened by trans-corporeality is marked by "both pleasure and danger—the pleasures of desire, surprise, interconnection, and lively emergence as well as the dangers of pain, toxicity, disability, and death" ("Trans-Corporeal" 259-260). Hence, in light of the increasing amount of toxic pollutants that threaten human and nonhuman bodies, Alaimo introduces "toxic bodies" as a "vivid example of trans-corporeal space" which also helps us "imagine an epistemological space that allows for both the unpredictable becomings of other creatures and the limits of human knowledge" (*Bodily* 22). Belonging to a posthuman space of becoming, therefore, the human body is not a "protected entity, but is vulnerable to substances and flows of its environment" (Alaimo, *Bodily* 28). Thus, reading human and nonhuman life forms through trans-corporeal lens, and paying attention to the agential realist account of the matter as an active force can allow us to move towards "a less anthropocentric and agent-centric perspective" (Beaney 81).

Moreover, Petrucci's posthuman poetics in *Heavy Water* and *Half Life* also provides the interfaces that allow us to listen to "the voices of the ordinary people who dealt with the Chernobyl disaster at ground-level: the fire-fighters, the soldiers, the 'liquidators' and their families" (Astley 230), and "the complex web of relationships between ecological destruction and the social, economic and political institutions[49] perpetuating it" (Moore par. 34). Within this spectrum, it is necessary to see how and why the Chernobyl nuclear accident took place in order to understand its relevance as an Anthropocene event which eventually points to a posthuman space of becoming coinhabited by human and nonhuman actants.

1.3.1. The Chernobyl Nuclear Disaster

At 1.23 am on Saturday, April 26, 1986, there happened a catastrophic accident in the reactor number four of the nuclear power plant 'Lenin,' which is located about 100 kilometres north of Kiev in Ukraine, which was then part of the Soviet Union (Kalmbach 131). Known as 'Chernobyl,' which is the name of the neighbouring town, the power plant consisted of four reactors that were built in the 1970s and 1980s, as well as the two additional reactors that were under construction in 1986 (Kalmbach 131). The Chernobyl

nuclear power station was built to generate electricity "for much of Ukraine, as well as parts of Belarus and southwestern Russia—republics that were part of the Soviet Union at that time" (Johnson 6). Since the burning of fossil fuels emit huge amounts of carbon dioxide into the atmosphere, they cause global warming and climate change in the long run. Hence electricity-generating nuclear reactors are considered to be an effective solution to keep the carbon dioxide emissions at a certain level (Johnson 52). While renewable energy sources are used as alternative options to prevent global warming, none of these solutions can provide uninterrupted supply of electricity, for "when the sun doesn't shine or the wind doesn't blow, electricity production slows or stops" (Johnson 53). Nuclear power plants, however, are much effective because they "can produce an uninterrupted supply of electricity while releasing relatively little carbon dioxide" (Johnson 53). Nevertheless, with nuclear power plants there "comes the risk of nuclear meltdowns and the release of dangerous ionizing radiation" (Johnson 54) that can cost the lives of (non)human entities. Therefore, it is of much importance to keep everything in order while managing a nuclear power plant.

However, due to a series of mistakes committed during an experiment that was conducted to "test energy output in the event of a shut down," there occurred two powerful explosions that "blew the top off the reactor building" at reactor number four of the Chernobyl power plant (Fabrikant 4). As a result, radioactive materials and hazardous gases found their way into the atmosphere and formed a toxic cloud spreading over Ukraine, Belarus, Russia, Europe, reaching as far as Asia and America within a few days:

> On April 29, 1986, instruments recorded high levels of radiation in Poland, Germany, Austria, and Romania. On April 30, in Switzerland and northern Italy. On May 1 and 2, in France, Belgium, the Netherlands, Great Britain, and northern Greece. On May 3, in Israel, Kuwait, and Turkey. . . . Gaseous airborne particles travelled around the globe: on May 2 they were registered in Japan, on May 5 and 6 in the U.S. and Canada. It took less than a week for Chernobyl to become a problem for the entire world. ("Historical Notes" qtd. in Alexievich 2)

Only after the early effects of the accident were realised by the Scandinavian countries, did the Soviet authorities begin sharing information about what really happened at Chernobyl:

The event was only recognised as an international disaster two days after the occurrence of the explosion, when operators of the Forsmark nuclear power station in Sweden detected unusually high levels of radioactivity in the local atmosphere. Initially believing the source of the radiation to be at Forsmark, the Swedish Radiation Safety Authority traced the radiation cloud's origin back to Ukraine; it was only when they decided to file an official alert to the International Atomic Energy Agency that the USSR admitted there had been an accident at Chernobyl. (Lindsay 1)

Following the request of Sweden ambassador to Moscow, the Soviet Union had to make an announcement on Soviet television, on April 28th as follows: "An accident has occurred at the Chernobyl nuclear plant as one of the reactors was damaged. Measures are being taken to eliminate the consequences of the accident. Aid is being given to those affected. A Government commission has been set up" (Fabrikant 3). However, by that time large quantities of radioactive particles had been released into the environment, and the radioactive cloud had started to travel through the region. Carried by the wind, the disastrous impact of the radioactive plume was not limited to the Chernobyl area, for it "segmented and moved west into Europe and the British Isles, southwest to Switzerland and Italy, and south and east to the Black Sea region and the Middle East" (Fabrikant 4). The heaviest radioactive particles that were forming the cloud started to fall down as nuclear fallout on the nearby landscape, while the lighter particles began travelling to distant regions with the help of the wind (Johnson 9). What started out as a local catastrophe, therefore, turned into a global tragedy. Accordingly, the reports issued by "Kuwait, China, Japan, and the United States indicated that within a week or so, the entire northern hemisphere was contaminated by the radioactivity" (Fabrikant 4), and the damage was irreversible. As Adriana Petyrna indicates, "the amount of radiation released into the atmosphere was four times the amount dispersed by the [atomic] bombings of Hiroshima" in Japan, during World War II (1939-1945) (30). Hence, despite the attempts of the Soviet government to mitigate the effects of the disaster, the decontamination techniques fell short of the expectations. Having set up their cleaning-up protocols to handle the radioactive contamination from nuclear explosions, the Soviet military and civil defence could not deal with the Chernobyl reactor meltdown accident properly, since it was "far more intractable and complex" (Dion-Schwarz et al. 46). While the radioactivity stemming from a nuclear explosion could be washed off of surfaces easily, the fallout's iodine content was comprised of the long-lived radionuclides that could

bound themselves chemically to the surfaces (Dion-Schwarz et al. 46). In relation to this, Elisabeth Däumer states that

> [w]hile some nuclides, such as iodine 131, have a relatively short 'half-life,' i.e. their radioactivity diminishes by half within a few days, others such as cesium 137 and strontium 90 have a half-life of 30 years; the half-life of plutonium, the most pernicious of nuclides, is 24.000 years. To protect oneself against these nuclides, all of which have entered the biological system by now, is virtually impossible. (19)

On similar grounds, LaForge draws attention to the possible consequences of this trans-corporeal traffic between the (non)human body and the radioisotopes. Strontium-90, for instance, has the ability to incorporate itself to the bone tissue; hence, it is likely to cause leukaemia (LaForge 28). Cesium-137, on the other hand, can remain in the soil and affect the food chain for a 300-year period (LaForge 28). "While iodine-131 remains radioactive for just six weeks," getting into circulation with the human body through skin or breathing, cesium-137 can "irradiate muscle cells and organs for decades" (LaForge 28). Given that, iodine-129 – one of the long-lived radioactive isotopes – has a half-life of 16 million years, the impact of the accident not only threatens the (non)human population today, but also the upcoming generations (Shrader-Frechette 82). Thus, it is obvious that the toxic legacy of the Chernobyl disaster cannot be restricted to a certain time period or place.

Since the human body is not a self-enclosed entity but is porous and open to the influences of the more-than-human world, there are a variety of pathways that can lead to the radiation exposure. First pathway, as Fabrikant explains, is the "external exposure from radionuclides" that are "deposited on the ground during the cloud passage" (5). These nuclides can release "gamma radiation upon decay which can enter homes and produce a major part of the exposure to" humankind (Fabrikant 5). Second pathway is through the ingestion of food that has been "contaminated either by direct deposition or by subsequent uptake from the soil into the food chain" (Fabrikant 5). Once the cows graze on the pastures that have been deposited with the radionuclides, their body and milk get contaminated. In consequence, humans who ingest radioactive food such as dairy and meat products, as well as fruits and vegetables, get affected in the end. The third pathway, as Fabrikant notes, is "the inhalation of radionuclides during cloud passage" (5). While

the harmful impact of the inhalation gateway is average in the areas that are "away from the immediate vicinity of the accident" (Fabrikant 9), people who happen to be at the disaster site have been severely affected by radiation exposure.

Following the explosions at the Chernobyl nuclear plant "[t]he initial blast killed just one plant worker, Valeriy Khodomchuk, and in the next few weeks fewer than thirty workers and firemen died from acute radiation poisoning" (Gessen ix). The first blast was threatening the reactor number three, so it "was brought under control within 90 minutes at the cost of the lives of all the firefighters (who received both thermal and radiation burns and extremely high, and in some cases lethal, doses of radiation)" (Fabrikant 4). The graphite core fire in the reactor, however, "continued until May 5th, being smothered by aerial drops of lead, boron, sand, clay, dolomite, and water" (Fabrikant 4) that were carried by helicopter pilots. The control of the graphite core fire was to be "followed by months of work to clean up the site and build a sarcophagus containment structure around the destroyed reactor" (Kalmbach 113). Therefore, over two decades, more than 600.000 soldiers, fireman and other rescue workers – who were called 'liquidators' – were brought to the disaster area from throughout the Soviet Union "to physically contain the radiation" (Petryna 30). These people had to deal with the catastrophic outcomes of the disaster most directly, as they were exposed to greater doses of radiation. According to the summarising remarks made at the International Conference, "One Decade after Chernobyl," held in Vienna, 1996, there were "[a]bout 200.000 'liquidators' [who] worked in the region of Chernobyl during the period 1986-1987, when radiation exposures were highest" ("Summary" 3). As Kreisel et al. note, since "the average age of liquidators was under 33 years at the time of working in the 30 km zone," they are likely to "live under a radiation risk for most of their life" (94). Having an interview with Andrei Tormozini, Sasha Yushenko and Genady Ursanosky, who were working at reactor number four when the explosion happened, James Lerager's observations deftly demonstrate the outcomes of the radiation risk these people had to take:

> Evacuated to Moscow, Andrei, Sasha and Genady survived months of intensive care, repeated operations, blood transfusions and, in Andrei's case, a bone marrow transplant. They still suffer from chronic ailments and fatigue; their bodies are covered with radiation burns; they are frequently hospitalized and are too ill to work. They have been advised not to have children. (25)

Due to the release of "[n]early 7 tons of irradiated reactor fuel" into the environment (Shrader-Frechette 70), there occurred a tremendous increase in the cancer rates in the regions contaminated. The exposure to the radioactive elements impairs the regular functioning of the body cells and causes them to mutate in an uncontrollable way. Therefore, unlike any other accident, Chernobyl disaster "produced, in a way, more survivors than victims" (Gessen ix), because it has affected not only the people who have witnessed the disaster, but also the upcoming generations – even the unborn. Accordingly, LaForge states that the exposure to radiation, in most cases, gives rise to "genetic and reproductive damage" that is transferred from generation to generation; therefore, "Chernobyl's enduring biological legacy will be that of inherited diseases, deformities, developmental abnormalities, spontaneous abortions and premature births" (28). According to the June 25, 1995 report of *Washington Post*, the rate of birth defects in the most heavily contaminated areas has doubled since 1986 (LaForge 28). Moreover, studying 79 families 186 miles from Chernobyl, and focusing on children born in 1994 to mothers that were exposed to the toxic legacy of Chernobyl in 1986, researchers "found never-before observed 'germ line' mutations – changes in sperm and ovum DNA" (LaForge 29). As one of the most affected group of the Chernobyl disaster, since their immune system is still in the process of developing, children had to deal with its fatal results. In this framework, Shrader-Frechette provides a detailed account of the statistics concerning Chernobyl induced predicaments on the children population as follows:

> In all, 1.600.000 children have received very dangerous doses of radiation […]. Birth defects, thyroid disorders, leukaemias and cancers are soaring among children hundreds of kilometres from Chernobyl. In Narodichi district, allegedly outside the zone of fallout, 50 percent of children are ill and absent from school on any given day, and 80 percent of all children have enlarged thyroids […]. In some areas of Belarus only 10 percent of the children are not chronically ill, and at least 100.000 abortions were carried out because of Chernobyl. In Belarus since Chernobyl, birth defects have risen by 161 percent, malignant tumours in children by 39 percent, diabetes 28 percent and breast cancer by 45 percent […]. (74)

Besides, sharing the same posthuman space of becoming with the radioactive particles, the animals, too, have been badly influenced by the Chernobyl disaster. Concerning the mutagenic impact of the accident, two US genetics analysed animals "living within a six-mile radius of Chernobyl [and] found that small rodents known as voles have sustained an 'extraordinary amount' of genetic damage. The study found out the voles' mutation

rate to be perhaps thousands of times greater than normal" (LaForge 29). Evidently, human and nonhuman beings cannot be physically disconnected from the material agency of the radioactive substances. In a similar vein, following the explosion, many "domestic animals have moved away from the accident, and those deformed farm animals that were born did not produce" (Helmenstine par. 2). Explaining further, Helmenstine conveys that "[e]xamples of defects included facial malformations, extra appendages, abnormal coloring, and reduced size. Domestic animal mutations were most common in cattle and pigs. Also, cows exposed to fallout and fed radioactive feed produced radioactive milk" (par. 9). Hence, the transfer of the radioactive contaminants from the nonhuman to the human – and the vice-versa, illustrates the way in which everything is in a corporeal exchange with one another. In this trans-corporeal exchange of ionising radiation, they were not only the human and the animal populations that were harmed by Chernobyl's nuclear meltdown. The plants, too, were badly impaired by the radionuclides. As Johnson describes, the pine forest that was near the Chernobyl nuclear power plant was "showered with radiation so intense that the trees died within days and turned an eerie, rusty red colour" (16). Since the trees had become radioactive, they had to be cut down and buried in the ground (Johnson 16). In this sense, "[t]he traffic in toxins," as Alaimo maintains, "may render it nearly impossible for humans to imagine that our well-being is disconnected from the rest of the planet or to imagine that it is possible to protect 'nature' by merely creating separate, distinct areas in which it is 'preserved'" (*Bodily* 18).

1.3.2. *Heavy Water* and *Half Life*: Posthuman Space of Radioactive Porosity

In *Heavy Water* and *Half Life,* we have two groups of poems that illustrate the outcomes of the multiple interchanges between human and nonhuman agencies. The first group of poems focus on the co-extensivity of the human body with radioactive particles by demonstrating the physical consequences of the Chernobyl accident on the liquidators. The second group, on the other hand, are poems that represent the social reverberations of the accident through analysing the familial relationships of the Chernobyl victims and survivors. Besides, Petrucci, in these collections, also draws attention to the ignored and unreported ecological issues that are swept aside by the power holders, and he criticises the ego-centric tendencies of the authorities who simply choose to whitewash their crimes instead of taking necessary precautions to prevent further nuclear catastrophes.

Accordingly, destabilising the traditional paradigms concerning the human control of nature, *Heavy Water* and *Half Life* present alternative nonhuman forms of agency. In both collections, the radionuclides illustrate the way in which a nonhuman actant is able to pass through the gates of rigid perceptions and can bring about destructive physical and social consequences that cannot be contained within the premises of human effort and control.

In this context, the poem "Ukritye,"[50] which concerns the agency of the radioactive particles and their capacity to infiltrate the human body in uncontrollable and unpredictable ways, represents the trans-corporeal relations between the nonhuman matter and the clean-up workers at the Chernobyl disaster area. The poem is about the firemen and soldiers – known as liquidators, and their exposition to fatal levels of ionizing radiation during their efforts to shovel the radioactive debris that was accumulated on the roof of the reactor number four of the Chernobyl nuclear plant. Since the radiation levels were too high on the roof, the liquidators were allowed to work in one-minute shifts; however, for the human body a couple of seconds was more than enough to absorb "a lifetime's worth of radiation" (Johnson 14). Paradoxically enough, not being able to deal with the radiation and the thermal condition of the disaster site, even the robot bulldozers failed in removing the contaminated layers of the radioactive soil. When more enduring apparatuses were introduced, they were limited in number, and it was too late to contribute to the Chernobyl decontamination effort. Hence, the liquidators were "given the ironic nickname of 'biorobots'" to denote the dangerous mission that they performed (Dion-Schwarz et al. 47-48):

> Even the robots refuse. Down tools. Jerk up
> their blocked heads, shiver in invisible hail. Helicopters
>
> spin feet from disaster, caught in that upwards cone
> of technicide – then ditch elsewhere, spill black running guts.
>
> Not the Firemen. In rubber gloves and leather boots
> They walk upright, silent as brides. […] (Petrucci, *Heavy Water* 17 1-6)

Though poorly equipped with rubber gloves and leather boots that do too little to protect the firemen against the harmful effects of the radiation, they continue shovelling "the

graphite that is erasing morrow, spine, balls – / that kick-starts their DNA to black and purple liquid life" (Petrucci, *Heavy Water* 17 8-9). Here, the mutagenic impact of the radiation is emphasised in that the radioactive isotopes penetrate deep enough to impair the regular functioning of the body cells, and they increase the risk of contracting cancer. Thus, the fight against the radioactive leak proves to be ineffective.

It seems that the human power is helpless against radiation, and the poem focuses on the weakness of human defence. The construction of the sarcophagus[51] for instance, is not powerful enough to contain the ongoing radioactivity lurking deep within the nuclear core. Over the years, the amount of the radionuclides diminishes through a process called radioactive decay. Nevertheless, since every single radionuclide has a unique half-life, that is "the time it takes for half a given amount of that radionuclide to decay," the length of the radioactive decay can "range from a fraction of a second to billions of years" (Johnson 24). No matter how enormous and enduring the sarcophagus turns out to be, it is not likely to prevent the radioisotopes' circulation through (non)human bodies completely. The rain, for instance, washes the nuclear particles into the soil, and there the radionuclides travel through the roots of the plants into the bodies that metabolise those vegetations:

> […] Yet Spring still chooses
>
> this forest, where no deer graze and roots strike upwards.
> Fissures open in the cement – rain finds them. They grow:
>
> puff spores of poison. Concrete and lead can only take
> so much. What remains must be done by flesh. (Petrucci, *Heavy Water* 17 10-18)

Once hazardous radionuclides – as nonhuman agencies – find their way into "our flesh and the flesh of the world" (Tuana 198), it becomes impossible that human bodies can protect themselves from the physical after-effects of the nuclear disaster. Accordingly, going beyond the dualistic premises that postulate a hierarchical alignment of the human and the nonhuman, the poem "Ukritye" emphasises the fact that "human forces are no longer […] the only agentic 'matters' that *matter*" (Dönmez, "Recent Approaches" 106, emphasis in original). Instead, as we see in "Ukritye" the posthuman space that we share

with nonhuman actants not only foregrounds a co-existent intra-action but also undermines the traditional paradigms concerning the image of a sovereign human subject.

Another way *Heavy Water* engages posthuman poetics is illustrated in the poem, "Grey Men," which not only displays the physical impacts of the Chernobyl nuclear disaster but also its socio-cultural outcomes. The poem is recounted from the perspective of a liquidator who talks about the physical and the social impacts of the Chernobyl accident. As the speaker states in the poem, the transformation that the liquidators are going through is apparent on the surface level at first. That is to say, their clothes grow like "a second skin" on their bodies (Petrucci, *Heavy Water* 22 1), and in this "grey rind" only the whiteness of their teeth can be discerned (Petrucci, *Heavy Water* 22 2-3), for they contrast with their black boots that are saturated with the nuclear fallout (Petrucci, *Heavy Water* 22 6). Here, through the transformation of their clothes, the poem does, in fact, draw attention to the irreparable change that the liquidators are going through because not only their clothes, but also their bodies are intra-acting with the radioactive particles.

In addition to the corporeal transit that takes place between the liquidators and the radionuclides, the title of the poem "Grey Men" also indicates the social stigmatisation that the Chernobyl victims are confronted with. No longer feeling themselves to be belonging to a community, the liquidators find themselves in a limbo-like position that urges them to create an alternative identity:

> *That reactor*, says Ivan, *is deliverance.*
> *Will spawn new words. Chernobylite.* I tell him
>
> they will hang us like overalls on his new words –
> so they can always find us and put us away. (Petrucci, *Heavy Water* 22 11-14)

As can be observed in the lines above, "Grey Men" demonstrates how the Chernobyl nuclear accident dismantles the nature/culture dualism, since its viscous porosity implements a nature-culture continuum that reads the corporeal and the social repercussions of the disaster through one another. Hence, the poem also illustrates the fact that Chernobyl's nuclear meltdown not only affects the materiality of the human

body, but it also introduces a social praxis that gives rise to the marginalization of the victims as the 'Chernobylites.'

However, *Heavy Water* shows that in a posthuman space of becoming it is not possible to fence off human/nonhuman, Chernobylite/non-Chernobylite, culture/nature, self/other because everything exists in a mutual flow of ongoing relations. Accordingly, "Fence" is another poem that criticises the human attempt to underestimate the impact of the Chernobyl disaster through creating a discourse. Representing a Soviet authority figure, the speaker in the poem tries to assure people that the fence makes a sharp distinction between the contaminated and the uncontaminated areas: "This side of the fence / is clean. That side / dirty. Understand?" (Petrucci *Heavy Water* 27 1-3). Trying to make his/her point stronger, the speaker tries to convince people that they no longer need to be afraid, since everything is under control; even the air they inhale is cleaned from the radioactive particles:

> […] Imagine a sheet
>
> of glass coming down
> from the sky. It's easy
> no? On this side
>
> you can breathe
> freely. Your cow can
> eat the grass. You can
>
> have children. That side
> you must wear a mask
> and change the filter
>
> every four hours. (Petrucci, *Heavy Water* 27 9-19)

No matter how persuasive the speaker sounds to be, the truth is that the noxious legacy of the Chernobyl catastrophe is difficult to eliminate. The radioactive particles are imperceptible, so we cannot "taste, touch, smell, hear or see radiation. Its effects are silent but deadly" (Shrader-Frechette 70). Besides, considering the agential power of the chemical contaminants, it is not possible to lead an absolutely sterile life since (non)human bodies are porous and trans-corporeally linked to one another. Hence, though the speaker in "Fence" tries to draw a borderline between the dirty and clean areas,

considering the viscous porosity of the Chernobyl disaster in that its impact has surpassed the local level, it would be a narrow-minded reaction to assume that there are still areas that have not been affected by the explosion. In this respect, "Fence" also criticises the political attempts of the Soviet government to whitewash and minimise the harmful effects of the Chernobyl accident:

> In 1987, the International Atomic Energy Agency (IAEA) refused to conduct a post-Chernobyl health study, claiming that all the accident's effects were confined within Soviet borders. Then, in a 1991 study, the IAEA insisted that Chernobyl's health effects were mainly "psychological," failing to consider the health of the "liquidators" conscripted to entomb the damaged reactor of the evacuees from the 18-mile exclusion zone—6,000 to 8,000 of whom have died from radiation-related diseases. (LaForge 29)

In this context, "Fence" epitomises the way in which the official response to the Chernobyl nuclear catastrophe is mainly marked by the attempts to trivialise radioactive danger and to supress reality. Hence, the question posed by one of the inhabitants of the so-called 'clean' areas is answered by the speaker as follows:

> You ask – What if my cow
> leans over the fence?
>
> Personally I say
> it depends which end. But
> we have no instructions
>
> for that. It is up to you
> to make sure your cow
> is not so stupid. (Petrucci, *Heavy Water* 27 20-27)

In the lines above it is seen that when the authority figures are helpless before the agential account of the nuclear disaster, they choose not to take responsibility and leave people to their own means. Evidently, here the poem presents a criticism regarding the reaction of the power holders. However, it also exhibits the vulnerability of the human self whose control mechanisms prove fruitless before the unforeseen and random properties of the radionuclides. Thus, as a posthuman poem, "Fence" shifts our attention from the authorial designs of the human to the vibrancy of the nonhuman actants.

Moreover, the poem also criticises the short-sighted vision of the authority figures who dogmatise that if a cow happens to cross over the fence that distinguishes the contaminated from the uncontaminated regions, it is not the fault of the officers but of the cow itself. However, in a posthuman space of becoming where everything is deeply interlaced with one another it is impossible to hold borders. The radioactive agents, the cows, the grass and humans all intra-act within this process of toxic contamination. Likewise, attributing "many alleged Chernobyl problems to radiophobia," that is, the fear of radiation, the IAEA used this concept as an excuse to put the blame on the sufferers of the Chernobyl disaster (Shrader-Frechette 75). Radiophobia was introduced "for the first time in a report by the national radiation protection committee of the USSR" to claim that "people weren't becoming sick because of the radioactive exposure, but rather their fear of it was making them sick, both psychologically and physically" (Kalmbach 137). It was thanks to such a word play that the nuclear reactor industry could stand against the oppositions made, while in reality the true extent of the Chernobyl nuclear blast was kept as a secret. As Lerager notes, not knowing anything about what really took place at the nuclear station, the people living in Kiev, which was less than 100 miles away from Chernobyl, continued exposing themselves to radiation during four days of traditional May Day celebrations – "parading, playing and picnicking in parks and the surrounding countryside" (25). Meanwhile, however, the government officials were busy "evacuating their own children and wives from the region" (Lerager 25).

It is already noted that the reactor meltdown at Chernobyl not only caused serious corporeal disorders on the liquidators, but it also affected their social milieu – including family members, relatives, colleagues and/or friends. Hence, *Heavy Water* does not merely bear witness to the trans-corporeality of the human body as a material entity, but it also emphasises the transformation of social institutions, such as family, due to the toxicity generated by the Chernobyl explosion. In this context, as part of Petrucci's posthuman poetics, *Heavy Water* also represents the mutual constitution of entangled human and nonhuman agencies within a background of socio-cultural relations. Accordingly, the poem "Ivan" epitomises the re-formation of the familial bond between a liquidator and his wife and shows the way in which the agentic properties of the radionuclides continue generating unwanted physical and social after-effects:

> She packed our baby and left.
> Bitch. I won't string myself up like
>
> Viktor. Won't step out of a window.
> When I got back a year before
>
> with a suitcase of roubles it was
> *darling darling*. […] (Petrucci, *Heavy Water* 46 1-4, emphasis in original)

As it is told by Ivan himself in *Voices*, he is one of the soldiers who took part in the liquification process at Chernobyl. Though he was just driving the other soldiers to the contaminated area "for their shifts and then back" (47), Ivan's body was also infiltrated by the radioactive particles as measured by total-radiation-meters that the liquidators carried along. However, the exact amount of the radiation that the soldiers were exposed to would be kept as a military secret (47). As Ivan further explains:

> Some time goes by and suddenly they say, "Stop. You can't take any more." That's all the medical information they give you. Even when I was leaving they didn't tell me how much I got. Fuckers! Now they're fighting for power. For cabinet portfolios. They have elections. (47-48)

Since Ivan does not have the necessary medical report that can indicate whether his body is fatally radioactive for his wife and their baby, the wife chooses to leave him. In *Voices*, Ivan states that if he had the certificate then he would show it to his wife, and they would have more kids (48). However, bearing the biological legacy of the Chernobyl disaster in mind, it is obvious that Ivan's wish cannot be fulfilled – unless he lives in an imaginary realm:

> […] Those testicles
>
> in suits won't let me have my file. See –
> exiled even from my own secrets.
>
> You too. With your microphones.
> That pity in your eyes like small print.
>
> And her. I'll show her I could survive
> at the centre of the sun. Breathe that heat
>
> like perfume. Won't give her the pleasure
> even of making me bitter. Bitch –

all of you. I'll marry. Raise an army.
　　I'll be Russia's fucking Abraham. (Petrucci, *Heavy Water* 47 28-38)

The poem "Ivan" shows that once the human intervention with the more-than-human world gets problematic, the power holders choose to hide or to reconstruct the truth according to their own advantage. Nevertheless, Petrucci in *Heavy Water* allows the reader to keep an eye on what is really happening at the backstage. Accordingly, while drawing our attention to the material consequences of the Chernobyl nuclear accident, through the real accounts of the Chernobyl victims, "Ivan" also illustrates the way in which the physical intra-action of the radionuclides with the human body can also alter how we, as well as other people in our social circle, think and behave. Given the physical and the social toxic consequences of the Chernobyl catastrophe, therefore, the poem encourages us to reconsider the materiality as well as the porosity of the human body, which becomes more obvious in the Anthropocene. While the fears of getting contaminated by contacting the radiation is real, Petrucci's posthuman poetry underlines the need to re-evaluate our material-discursive practices and to acknowledge the fact that humans and nonhumans belong to the same posthuman space of becoming. In this respect, the Anthropocene serves as a fertile platform to make humans meet the consequences of their anthropocentric attitudes to the more-than-human world.

Another poem, "*Every day I found a new man*" is a good example that illustrates the inseparability of the human body from the material world that has been contaminated by toxic agencies. The poem displays the experiences of a young woman, Lyudmilla Ignatenko, who gets exposed to radiation through the body of her husband Vasily Ignatenko, who was one of the firefighters that were summoned to extinguish the initial blaze that started at the reactor four of the Chernobyl nuclear power plant. Since Lyudmilla was already pregnant at that time, her exposure to the radiation also influences her unborn baby. Accordingly, the poem not only demonstrates the early after-effects of the disaster on Vasily's body, but it also points to disastrous implications of the radioation on the bodies of Lyudmilla and their daughter. Thereby, Petrucci's posthuman poetry underlines the cataclysmic trans-corporeal consequences of the explosion and challenges the all-powerful image of the *anthropos* who is proven to stay vulnerable before the

unforeseen consequences of the Chernobyl catastrophe, which not only wrecks the human life but also the entire atmosphere.

Not knowing anything about the true extent of the risk they were to encounter, Lyudmilla tells in *Voices* as follows:

> One night I heard a noise. I looked out of the window. He saw me. "Close the window and go back to sleep. There's a fire at the reactor. I'll be back soon." […] The smoke was from the burning bitumen, which had covered the roof. He said later it was like walking on tar. They tried to beat down the flames. They kicked at the burning graphite with their feet. . . . They weren't wearing their canvas gear. They went off just as they were, in their shirt sleeves. No one told them. They had been called for a fire, that was it. (5-6)

Unfortunately, it was not just a simple fire, and Vasily was exposed to high amounts of ionizing radiation. Since his body was highly radioactive, the Soviet authorities decided to take Vasily to a secluded bio-chamber in Moscow. In the eyes of the authorities, Vasily's corporeal intra-action with the chemical particles had long transformed him into a radioactive entity to be avoided; nevertheless, for Lyudmilla, her husband was much more than an irradiated body:

> *Do not kiss him* they said, starting back, as though
> he were an animal in its cock cocking its head to listen
>
> but understanding nothing. *Do you understand? Are you*
> *pregnant? No? And find him milk. Three litres a day.*
>
> I poured that whiteness into him. Felt I was feeding
> a goose its own feathers. He retched and cursed –
>
> the thin dribble each side of his mouth worse than a child.
> *Each time you hold his hand is a year off your life. Can you*
>
> *hear us? His bones are more active than the Core.*
> *Understand? That is no longer your husband.* […]
> (Petrucci, *Heavy Water* 60 1-10, emphasis in original)

No matter how dangerous Vasily's body turns out to be – not only for his wife but also for their unborn child – she does not leave her husband alone. Lyudmilla even hides her pregnancy for the fear that the doctors will not let her take care of Vasily. However, the acute radiation poisoning starts showing its external traces on Vasily gradually:

> He started to change—every day I met a brand-new person. The burns started to come to the surface. In his mouth, on his tongue, his cheeks—at first there were little lesions, and then they grew. It came off in layers—as white film…the color of his face…his body…blue…red…gray-brown. And it's all so very mine! It's impossible to describe! It's impossible to write down! And even to get over. The only thing that saved me was, it happened so fast; there wasn't any time to think, there wasn't any time to cry. (Alexievich 11-12)

Although Vasily dies soon after having been hospitalised, the ruinous impacts of the radiation linger into the future. Its most direct influence is overtly seen on Vasily and Lyudmilla's baby girl Nataschenka who was exposed to radiation while she was in her mother's womb. Despite the fact that the baby girl looked healthy upon her birth, she was suffering from serious organ failures such as cirrhosis of the liver. As Lyudmilla describes in *Voices*, Nataschenka's "liver had twenty-eight roentgen. Congenital heart disease. Four hours later they told me she was dead" (21). Obviously, the impact of radiation is greatest on growing organisms including infants, children, and adolescents because their immune system is not as developed as those of the adults. Furthermore, compared to men, women "may also be more vulnerable to radiation because they are more susceptible to thyroid cancer," which is triggered by the radionuclides (Däumer 19). Apart from that, as corporeal entities, "women's bodies become a meaningful crossroad of these multiple agencies" in that they are "[o]ften 'infiltrated' by material exposure to health-impairing substances and by ideological constructs of power" (Iovino, "Toxic Epiphanies" 38). Within this context, the particular case of Lyudmilla and her baby girl highlights the need to pay more attention to the woman body, for it functions as an open trans-corporeal site that transfers the contaminants to the infant. In a similar vein, examining the Seveso disaster of 1976, which was an industrial accident that took place in Italy, Serenella Iovino elaborates on the side-effects of the dangerous chemical agent 'dioxin' on human and nonhuman bodies with a particular focus on Laura Conti's Seveso narratives, in her article "Toxic Epiphanies" (2013). Similar to the radioactive cloud that was formed after the explosion at Chernobyl nuclear power plant, following the explosion at the ICMESA factory that was producing perfumes and deodorants, a huge toxic cloud containing dioxin settles on Seveso – which is a small town near Milan. With the death of hundreds of domestic animals in the region, the inhabitants evacuate the town. However, due to the release of high amounts of dioxin into the atmosphere, many children contract an unusual

skin disease called chloracne; while the pregnant women miscarry, give birth to infants with genetic malformations, or choose abortion (Bevilacqua 22).

Accordingly, underlining the "biological permeability and reciprocity among all living beings" in general, and focusing on the "corporeal and trans-corporeal dimension of maternity" (Iovino, "Toxic Epiphanies" 46) in particular, Iovino maintains that "the genetic effects of dioxin on fetuses *through their mother's body* shows an explicit awareness of the critical role of women in this system of entangled contaminations. Women are affected twice: in their own bodies, and—trans- or inter-corporeally—in their babies' bodies" ("Toxic Epiphanies" 46, emphasis in original). So conceived, "*Every day I found a new man*" represents the determination of a wife who, though much more vulnerable in body, shows perseverance and courage before the catastrophic consequences of the Chernobyl disaster on her husband: "I still believed I would save him. Milk, soup, kisses. As if / he could digest the touch of my lips, feel my making of broth / in his dissolving heart-chambers. […]" (Petrucci, *Heavy Water* 61 29-31). Contrasting with the clear-cut distinctions made by the staff members at the hospital, Lyudmilla's affectionate attitude towards Vasily demonstrates the arbitrary nature of the dualisms that are imposed by the society.

A similar representation of the intra-action between human and nonhuman actants is displayed in the poem "Transplant." In fact, Transplant" foregrounds the consequences of what can be called a dangerous, corrosive intra-action of the radioactive agents and the female body. In the poem we have an account of a sister's attempt to save her dying brother. Although the poem does not bear the names of the siblings, in *Voices* Lyudmilla recounts that struggling hard to keep Vasily alive, his older sister Lyuda tried to help him through a bone marrow transplant. Being a nurse herself, Lyuda is well aware of the risks that this operation is to have on her body – that she may not be able to become a mother in the future – yet she accepts all the predicaments as long as her brother lives. The operation takes two hours, and as Lyudmilla recounts in *Voices*: "When they were done, Lyuda was worse off than he was, she had eighteen punctures in her chest, it was very difficult for her to come out from under the anaesthesia. Now she's sick, she's an invalid. She was a strong, pretty girl. She never got married" (14). For Lyuda, this was the cost

of helping her brother Vasily whose body had long turned into "a radioactive object with a strong density of poisoning" (16). In this respect, similar to "*Every day I found a new man*," "Transplant" exhibits the transforming capacity of the radioactive substances on the body of a woman. Here the body of the woman is underlined because it is proven to be more porous and susceptible to the detrimental impact of the radioactive particles, as it has been validated through the intra-contamination of Lyudmilla's unborn infant. On the other hand, the female body also functions as a suitable platform to trace the socio-cultural impacts of the disaster. To illustrate, apart from their physical impact, the harmful actants also cause Lyuda to be ostracised in the society, so much so that she ends up with being compared to a witch by other women (Petrucci, *Heavy Water* 53 28). Thus, the poem provides a posthumanist perspective in the sense that the human body and/or identity can never be considered as a stable enclosure that is isolated from the dynamics of the more-than-human world. Besides, the poem also warns that when the healthy co-existence of both parts, which should ideally be kept in harmony, is destroyed through the egocentric impulses of humankind, the agential capacity of the nonhuman matter is able to react in a much catastrophic dimension, almost like Frankenstein's monster:

> They say she'll never
> marry. Her blood
> watered down. Yes –
>
> […]
>
> the next she flares green fire
> East to West. Bellows –
> *You think that Reactor*
>
> *knew about borders?*
> One woman whispers they
> messed with her marrow
>
> and now she's a witch.
> (Petrucci, *Heavy Water* 53 16-18, 22-28, emphasis in original)

Following the transplantation, the question that Vasily asks his sister towards the end of the poem, "*You think that Reactor / knew about borders?*" (Petrucci, *Heavy Water* 53, 24-25 emphasis in original), is significant in terms of indicating the permeability and the vulnerability of the human body in the face of hazardous chemicals. Once the radioactive particles are released into the more-than-human world, their agentic power, with a unique

half-life for each, renders them intractable entities that cannot be contained within a border line. Hence, as these radioactive contaminants move through air, water, and earth, they continue infecting human and nonhuman natures. In this respect, "Transplant" shows how the body of Lyuda turns into a trans-corporeal site where the unwanted physical and social repercussions of the agential account of the radioactive particles can be observed.

Nevertheless, it should not be inferred that a posthuman space of trans-corporeal relations can only be limited to the negative effects that alter bodies in hazardous ways. As biological entities, humans need to inhale oxygen, and in return they exhale carbon dioxide which is used by green plants to produce energy during the process of photosynthesis. It is thanks to the porosity of the human and nonhuman bodies that life continues. In addition, even the act of transplantation – as a medical procedure – underscores the alterability and the permeability of the sick human body in a positive way. Therefore, by emphasising the agency of the radioactive particles within a posthuman space of becoming Petrucci seems to question the hierarchical division between human and nonhuman beings. The outcomes of this intra-action cannot be necessarily foreseen or controlled. It is the unpredictability and the randomness of the vitality that is inherent to the matter that shapes the main backbone of Petrucci's posthuman poetry in *Heavy Water*.

In this posthuman space even the bodies of the dead organisms can become a threat, because the negative impact of the radioactive particles that have irradiated those bodies cannot be removed from the face of the Earth easily. This is the reason why the Soviet authorities tried "to limit the possible spread of his [Vasily] radioactive contamination, […] by removing his corpse from the hospital and burying it hastily, without a proper burial, in a Moscow graveyard with restricted access" (Lindsay 34). On similar grounds, the contaminated trees in the Exclusion Zone were cut down and then buried "in long, shallow, gravelike trenches" (Johnson 16) so that the radiation exposure would be kept at a minimum level. In this respect, the poem "Last Wish" exemplifies another Chernobyl victim whose last request is to be buried in an ordinary way – other than being sealed in powder or being wrapped in plastic (Petrucci, *Heavy Water* 86 4,7). The speaker states that s/he would prefer to have been entombed "with a bullet in the head" rather than being

buried in lead and concrete (Petrucci, *Heavy Water* 86 1-3). Here, through the deceased yet the radioactive corpus of a Chernobyl victim, therefore, the poem illustrates how the Chernobyl disaster can even transform the concept of death itself, because the contaminated bodies do not 'decay' easily:

> For each tomb that's hidden a green
> soldier turns. None decomposes.
> Nothing for worms.
>
> A buckle. A pencil. Break one thing
> I left. *Give some small part of me*
> *ordinary death*. (Petrucci, *Heavy Water* 86 10-15, emphasis added)

Just like their deaths, the lives of the Chernobyl victims are also infected by the nuclear accident. To illustrate, a nuclear worker whom Adriana Petyrna met in 1992 shows his local skin burn to Petyrna and comments that he is "one of the 'living dead.' 'Our memory is gone. You forget everything—we walk like corpses'" (32). As one biochemist also tells Petyrna in 1996, most of the clean-up workers absorbed "six to eight times the lethal doses of radiation. 'They are alive,' he said. 'The workers know that they didn't die. But they don't know how they survived'" (32). Given the paradoxical existence of the Chernobyl victims who are neither dead nor alive, O'Connor notes that "[t]he figures in *Heavy Water* are keenly aware of the ironic dimensions of their tragedy: rather than claiming their lives at once, radiation sickness takes months or years to devour them," so they are confined to lead a life in death, or the vice versa (par. 3).

In this respect, it is functional that *Heavy Water* commences with the (con)fusion of the images of death and birth in the poem "The Man Buried with Chernobyl." Unlike the description of the birth of a human being in "Entering the Forest" in *Bosco*, "The Man Buried with Chernobyl" describes an anonymous figure – most probably a liquidator – who has been entombed with Chernobyl. Similar to the way the nuclear core of the Chernobyl plant is covered by a huge sarcophagus so that the leakage of the radioactive substances can be held in check, here the man's being buried with Chernobyl refers to the containment of the radioactive corpus that is still emitting radiation. Hence, the poem purposefully blurs the distinction between the representation of a fetus growing in the womb and of a dead body buried in the ground:

> He's there. You might even see him – if you look
> hard with X-rays. You could slice him like an embryo,
>
> ply the great toothed wheel as it thrums with water – feed
> cooling-water down the long shaft in an umbilical cord
> (Petrucci, *Heavy Water* 15 1-4)

As can be observed in the lines above, the way the dead body is described can be associated with the pre-natal state of the baby that is scrutinised by an ultrasound device. Hence, the implication is that the man buried with Chernobyl can also be re-born. In other words, he can rise from his grave where he was long forgotten:

> […] Perhaps he would stir – lift
> from his calcined mould like a grit jelly. Step off the VDU
>
> imagining himself the corpse at the end of a play
> leaving behind the murdered outline in white carbon.
> (Petrucci, *Heavy Water* 15 9-12)

As O'Connor states, this "is a remarkable image of organic memory surfacing to confront the legacy of industrialized terror, and a fitting way for Petrucci to inaugurate his project of bearing witness to Chernobyl's dead" (par. 3). In this context, warning against the current state of the sarcophagus at Chernobyl, "which was hastily constructed in 1986 and to this day entombs the exploded reactor, [yet] has been gradually deteriorating, due to the extremely high levels of radiation it holds back" (Lindsay 45), the poem forms a link between the past and the present. Put differently, calling attention to the on-going agency of the nuclear particles buried deep down in the fourth reactor at Chernobyl, "The Man Buried with Chernobyl" urges us to reconsider our bodily materiality and porosity in the face of unpredictable agentic properties of the radioactive elements that are never stagnant. Therefore, the poem underlines the fact that the Chernobyl disaster can never be fully embedded in the past. It is a warning about the interconnectedness of life that anthropocentricism keeps ignoring at its own risk.

As stated above, *Heavy Water* and *Half Life* are like the two parts of a single poem, so they are "best understood as siblings" who "share this particular strand of DNA" (Petrucci, *Half Life* n.p.). Inspired by the true accounts of the Chernobyl victims, the poems in *Half Life* also try to bear witness to their suffering. While the poems chosen for

analysis in *Heavy Water*, namely "The Man Buried with Chernobyl," "Ukritye," "Grey Men," "Fence," "Ivan," "Transplant," "*Everyday I found a new man*," and "Last Wish" exemplify the wide-ranging porosity of the Chernobyl catastrophe that embodies the corporeal, social, political and environmental consequences of the radiation, the ones chosen in *Half Life*, that is "Isotopes" and "Every generation had a war. How could ours be different?" illustrate how humankind's confrontation with the unpredictable consequences of Chernobyl cannot be restricted to a particular geography or time-scale. In this respect, while alerting us to the dire consequences of living in the Anthropocene, Petrucci's posthuman poetry also envisions this particular geological epoch as a multi-dimensional occurrence that should be evaluated from a comprehensive perspective. Reading this epoch through the lenses of posthumanism, therefore, *Heavy Water* and *Half Life* help us replace the ego-centric treatment of the more-than-human world as an inert matter with a more eco-centric perception that takes the agentic properties of the nonhuman matter into account.

Criticising the anthropocentric view of the world, since its attention is drawn to insignificant issues, while there are more serious ecological problems that wait to be addressed, the poem "Isotopes" indicates the current radioactivity of the chemical particles in the Chernobyl complex. Similar to the way the entanglement of human bodies and radioactive particles has been analysed through trans-corporeal and posthumanist methodology in *Heavy Water*, the boundaries between human and nonhuman agents are also shown to be porous in *Half Life*. Accordingly, as a posthuman poem "Isotopes" suggests that other than taking refuge in a self-delusionary perspective that disregards how all (non)human agencies matter, we should broaden our vision and be more attentive to the ecological consequences of turning a blind eye to this relational ontology:

> […] The question
> of whether we should breathe
> through nose or mouth
>
> sets us at each others' throats.
>
> […]
>
> […] But while we
> quibble wrangle manoeuvre

through a fissure in steel
those atoms keep streaming out.
Will never be shouted down.
(Petrucci, *Half Life* 20-21 10-13, 19-27 emphasis added)

As the poem indicates, it is ironic that people argue over trivial matters, while, in effect, the agency of the chemical particles continues threatening all human and nonhuman life forms, because "[t]he fourth reactor, now known as the Cover, still holds about twenty tons of nuclear fuel in its lead-and-metal core. No one knows what is happening with it" ("Historical Notes" qtd. in Alexievich 3). As a reaction to the 'blissful ignorance' of humankind, however, "Isotopes" acknowledges the agential properties of the nonhuman matter, as well as their ability to generate unforeseen disasters. The ongoing activity of the radioactive particles in the Cover, therefore, implies that what happened at Chernobyl is not something that has been buried in the past. On the contrary, it continues to have impact on today as well as on the future.

Likewise, epitomising the impossibility of drawing strict border lines in a posthuman space of becoming where the intertwined co-existence of human and nonhuman agencies "creates a horizontal dialectic" (Iovino, "Ecocriticism" 44), the poem "Every generation had a war. How could ours be different?" is about a journalist, Anatoly Shimansky, who attempts to write about the Chernobyl disaster from an objective and distanced perspective. Using the terminology of a battle, therefore, "Every generation…" starts off as follows: "We film it like war. Each brief farewell – / the tear on the cheek.   Our war without bombs" (Petrucci, *Half Life* 18 1-2). However, out of his experiences at the disaster site, the journalist realises that no matter how hard he tries to keep his distance, the agency of the radioactive particles counters his attempts. Hence, just like the anonymous liquidator who expresses in the poem "Soldier," that "this, a strange war" killing "when you get back" home (Petrucci, *Heavy Water* 19 38-39), Shimansky also observes the fact that this war does not kill you directly on the battle ground – but gradually. Its "bullets are as strange / as needles" (Petrucci, *Heavy Water* 19 37-38). Though invisible to the eye, the radioactive particles are powerful enough to infiltrate into the flesh and make it sick. Accordingly, underlining the agentic properties of the radionuclides, both poems "Soldier" and "Every generation…" provide a departure from

the traditional parameters of human authority. Furthermore, calling himself and the other reporters as "[v]endors of apocalypse" (Petrucci, *Half Life* 18 22), Shimansky criticises the media's tendency to commodify the suffering of the Chernobyl victims. In his interview with Alexievich in *Voices*, ten years after the Chernobyl disaster, Shimansky expresses his reflections as follows:

> The Chernobyl explosion gave us the mythology of Chernobyl. The papers and magazines compete to see who can write the most frightening article. People who weren't there love to be frightened. Everyone read about mushrooms the size of human heads, but no one actually found them. So instead of writing, you should record. Document. Show me a fantasy novel about Chernobyl—there isn't one! Because reality is more fantastic. (124)

Hence, "Every generation…" seems to posit the idea that the outcomes of the Chernobyl catastrophe are too real to be conveyed through the third parties who have never been to the disaster site. Nevertheless, presenting a posthuman space of becoming where the boundaries are hazy and fluid, the poem underlines the fact that it is no longer possible to adopt a separative terminology that perpetuates the distinction between here and there, then and now, us and them. In this sense, though the journalist tries to console himself that the reporters cannot be totally involved in the disaster, at the back of his mind he is well aware of the fact that he has already been affected:

> […] *We are*
>
> *cameramen*, I say. *We are not involved.*
> And all the while I know my coat is clicking
>
> like a cricket. My own coat – killing me.
> (Petrucci, *Half Life* 19 35-38, emphasis in original)

The clicking of the journalist's coat refers to its being radioactive since he has been to the contaminated regions while filming and interviewing the local people that live nearby Chernobyl. The intra-action between the radioactive chemicals and the journalist's coat, therefore, illustrates the trans-corporeal connectivity between the human and the more-than-human world. As a posthuman poem, therefore, "Every generation…" reveals that the Chernobyl nuclear accident cannot be treated as a passive incident that is limited to a specific time and place; rather, its sphere of influence is powerful enough to go beyond

the frames of the photographs and the films taken by the media. In this respect, the poem also criticises the hubristic tendency to commodify the sufferings of the Chernobyl victims instead of drawing lessons from the collapse of the anthropocentric vision. Thereby, by underscoring a posthuman space of becoming where nonhuman agents can no longer be interpreted as passive components, Petrucci's posthuman poetry entails a significant perception shift that might propose biocentric alternatives to the ecocatastrophes that are likely to increase in the Anthropocene.

Nevertheless, it should be noted that witnessing the 'true' experiences of the Chernobylites as distilled through Petrucci's 'imagination' can create a discursive distance between the readers and the people who have been suffering on the spot. Therefore, one can rightfully wonder whether the posthuman space of becoming can also transgress the borders between the Chernobyl survivors and those who watch their misery from a distance. As Lindsay argues, "[t]o listen directly to Chernobyl survivors, to ask them how it was, would be dangerous; to listen secondarily with imagination, however, would be to bear witness to their pain through how we think it ought to impact upon us and how that thought, performed, emotionally affects us" (131). Yet, it should also be kept in mind that the issues that are addressed in *Bosco*, *Heavy Water* and *Half Life*, such as deforestation, global warming and the Chernobyl nuclear disaster, are global crises that all of us are facing currently. Hence, exposing the material and the social consequences of the permeability represented between human and nonhuman agencies in *Heavy Water* and *Half Life*, Petrucci's posthuman poetics points to "a posthuman condition not too remote from our reality" (Oppermann, "From Material" 284).

In the light of Mario Petrucci's projection of the intra-active dynamics between human and nonhuman agents in *Bosco*, *Heavy Water* and *Half Life*, it is seen that posthuman space necessitates an ontology of connectedness that welcomes passages and entanglements rather than isolations and binary oppositions. However, far from envisioning an idyllic unity where human and nonhuman entities live in a non-hierarchical network of peaceful relations, Petrucci's posthuman poetry demonstrates the ecological consequences of the breakdown of such an ideal relationship. In this regard, *Bosco* epitomises the outcomes of deforestation, global warming and climate change by

underlining the posthumanist vision that humankind can no longer be seen as an autonomous force that can stay clear of the disasters it generates. According to this vision, the human is not an exceptional entity but part of an assemblage that continues intra-acting with nonhuman forces. Within this context, therefore, *Bosco* presents a posthumanist reading of the Anthropocene to suggest that rather than preserving the notion of the *anthropos* as the ultimate destroyer or the cultivator of the more-than-human world, we need to acknowledge the agential role of the nonhuman matter and its capacity to respond to human intervention negatively and/or positively. Correspondingly, demonstrating the permeability of the material boundaries between human and nonhuman bodies by focusing on the trans-corporeal after-effects of the Chernobyl nuclear disaster, *Heavy Water* and *Half Life* disclose a more dynamic matter that is no longer inert, as observed in the negative outcomes of the agential realist account of the radioactive particles. Developing a posthumanist perspective that critiques the anthropocentric constructivisms, therefore, Petrucci illustrates the complexity of the non-hierarchical relations between the human and the more-than-human world in his posthuman poems of the Anthropocene.

CHAPTER II

ALICE OSWALD'S POSTHUMAN POETICS: (CON)FUSION OF (NON)HUMAN VOICES WITHIN A POLYPHONIC MESHWORK

> In nature's infinite book of secrecy
> A little I can read.
>
> —Shakespeare, *Antony and Cleopatra*
>
> The knack of enervating nature (which starts in literature and quickly spreads to everything we touch) is an obstacle to ecology which can only be encountered by a kind of porousness or sorcery that brings things unmediated into the text.
>
> —Alice Oswald, *The Thunder Mutters*

Exchanging the anthropocentric treatment of the nonhuman realm as a passive entity with a posthumanist vision that heralds "the beginning of a posthuman reality in which the figure of the human as we know it comes under scrutiny" (Oppermann, "From Posthumanism" 24), posthuman poetics shows that we can no longer perpetuate the hierarchical gap present in human/nonhuman taxonomy. Drawing upon recent theories of posthumanism, the first chapter therefore, argued that Petrucci's posthuman poetics expands the definition of agency to include that of the nonhuman sphere as well. In this respect, I have suggested that trying to alert the reader to ecological consequences of living in the Anthropocene, Petrucci's posthuman poetics does not merely illustrate how humankind has turned into a geological agent that enforces its designs on the Earth; rather, it reveals the way in which our actions intra-act with other nonhuman agencies and generate unforeseen effects that are beyond our control. Petrucci's posthuman poetics, therefore, offers an ecological critique that underlines the importance of acknowledging agential capacities of the nonhuman matter in a network of permeable relations.

This chapter argues that Alice Oswald, in *Dart* (2002) and *A Sleepwalk on the Severn* (2009), similarly destabilises the human-centred perspective by showcasing the entanglement of human and nonhuman forces within a dialogic pattern that takes note of the agential presence of the more-than-human world. In other words, instead of situating a human spectator at the heart of *Dart* and *Sleepwalk*, Oswald illustrates an intra-active set of relations that challenges the authoritative gaze of the human 'subject.' Accordingly, in her book-length river poems Oswald introduces nonhuman entities such as rivers, the moon, and the wind as autonomous beings that have the capacity to engender physical and psychological effects in a posthuman space of becoming. Unlike Petrucci, however, Oswald's concern is not directly related to the ecological issues of the Anthropocene. Still, as a poet writing in the Anthropocene, Oswald's posthuman poetry inevitably deals with the dissolution of the oppositional dialectic between humans and nonhumans. As Lynn Keller also maintains in *Recomposing Ecopoetics* (2017), which is a scholarly work that contains her analysis of the contemporary North American poetry, while the Anthropocene can be used as a "geological reference that may reach back centuries," the phrase "'self-conscious Anthropocene'" identifies a cultural reality more than a scientific one" (2). Dating the start of the "self-conscious Anthropocene" to Crutzen and Stoermer's announcement of the term in their article "The 'Anthropocene'" in 2000, Keller accentuates the need to move towards a period of "changed recognition" in the new millennium (2). Hence, introducing posthuman poetics as an eco-centric alternative that is able to display an "understanding of the hybrid 'naturalcultural' reality that we inhabit physically and intellectually" today (Nolan 9-10), this study introduces the posthuman space as stratagem to examine the way in which Petrucci and Oswald's posthuman poetics points to an eco-centric awareness that has become more prevalent starting with the first decade of the 21st century onwards. Within this spectrum, *Dart* and *Sleepwalk* demonstrate inter-subjective passages between humans and nonhumans, and they enunciate a posthumanist vision where the subject/object duality is deconstructed through the collective voice of the lyric 'I' which alternates between that of the human beings and of the River Dart in *Dart*. In a similar manner, under the influence of the lunar cycle, *Sleepwalk* exemplifies the flow of changing emotions across human and nonhuman forces as they continue re-visiting the Severn Estuary at night.

We can identify the ways in which Oswald underlines the co-existence of humans and nonhumans by situating them in a posthuman space of becoming in *Dart* and *Sleepwalk*. One way of creating a posthuman space is achieved by removing the dominant position of the human self in relation to nature in Oswald's poetry. Instead of projecting a domineering human gaze upon the natural world, *Dart* and *Sleepwalk* introduce 'listening' as an ecological act that dismantles the overbearing presence of the lyric I/eye. Moreover, Oswald also makes use of the flexibility implemented through the aura of the rivers as a thematic foundation that signifies the conflation of the streaming voices in her posthuman poetry. As a technical stratagem, on the other hand, the alteration of voices is displayed through the structural pattern of the poem which alternates between verse and prose. While *Dart* uses a structural meshwork that brings prose and poetry together, *Sleepwalk* follows the dialogic framework of a play that allows human and nonhuman characters to be presented on an equal level in the poem. So conceived, in accordance with posthumanist and agential realist vision that blurs the ideological borders between humans and nonhumans, I argue that Oswald's all-inclusive and experimental approach challenges the anthropocentric foundations of conventional nature poetries in *Dart* and *Sleepwalk*.

In other words, Oswald's poetry creates a posthuman space of becoming where the human and the more-than-human world cannot be contained within a static borderline. Rather, Oswald's posthuman poetics tends to 'confuse' the dialectic boundaries pertaining to human and nonhuman spheres so that it becomes possible to "*make things flow together*" as the word, 'to confuse,' etymologically suggests. (Almond 39, emphasis added). *Dart*, for instance, puts forward an entangled narrative, that is a narrative which incorporates the voices of human characters as well as that of the River Dart as a nonhuman agent. We see that the human characters' voices eventually flow into the river and become an integral part of the voice of the river itself. The human voices in *Dart* belong to multiple figures ranging from people who work on the river such as a forester, a bailiff, a chambermaid, a tin extractor to those of a naturalist, an old walker, an eel-watcher, a fisherman, a canoeist, swimmers as well as mythological and dead figures such as Jan Coo and John Edmunds who drowned in the River Dart. It is through the large variety of the human voices, appearing and disappearing throughout the poem, that *Dart* represents

a posthuman space where the polyvocal connections between humans and the river are foregrounded within a non-hierarchical confluence. Accordingly, I argue that Oswald develops a posthuman poetics in the sense that she shows the River Dart as an active component which has the agential ability to influence its human inhabitants.

In a similar way, *Sleepwalk,* too, presents a posthuman space where the voices and the reflections of the moon, the wind, and the human characters constitute a dialogic pattern that is shaped by the changing phases of the moonrise. While the polyphonic intersection is limited to the human-nonhuman exchanges on a terrestrial ground in *Dart*, *Sleepwalk* widens the scope of the posthuman space by taking the cognitive and the physical impact of celestial beings, such as the moon, into consideration. The moon, in fact, functions in a similar way to the river in *Dart*. However, in *Sleepwalk*, agential capacities of the moon are shown to be more encompassing because it not only makes an impact on the tidal waves of the River Severn but also on the river's human populace. In each phase of the lunar cycle, along with the moon, there is also a poet-figure who continues re-visiting the Severn Estuary, and she continues taking notes in her nightbook only to be interrupted by different voices that range from those of a birdwatcher, a fisherman, an articled clerk, a sailor, a vicar, a parish clerk to those of the wind and of the moon herself. Although *Sleepwalk* is structured like a play, Oswald warns the reader that her work "is not a play. This is a poem in several registers, set at night on the Severn Estuary" (*Sleepwalk* 1). Since the identity of the speakers is introduced just before they start expressing their reactions, it is easier to follow the ensuing dialogues that embody human and nonhuman voices/reflections in *Sleepwalk*. Accordingly, in the posthuman space that the poem creates, none of the voices are prioritised before others; instead, they all take part in an intra-affective multivocality. Within this perspective, *Sleepwalk* urges the reader to acknowledge the entanglement of intra-acting agencies which can range from the movement of the tidal waves to much larger more-than-human presences, such as the moon. In this respect, I argue that *Sleepwalk* functions as a supplementary work to *Dart* in terms of enlarging the scope of the posthuman space to involve the intra-planetary moon-earth-river-human dynamics, which, in essence, underscores the impossibility of perpetuating the subject/object dichotomy of the anthropocentric world view.

2.1. ALICE OSWALD AS A POSTHUMAN POET

Born in 1966 in Reading as the third daughter of Mary Keen, "a renowned garden designer who has been involved with several distinguished formal plantings," Alice Oswald had "an itinerant upbringing" along with her two sisters and her brother, moving from one location to another "according to the demands of her mother's employment" (Ryan 111-112). In her interview with Armitstead, Oswald remarks that "I felt I grew up in a series of gardens" (par. 12), and after studying classics at New College, Oxford, she decides to become a gardener and joins a gardening course with the Royal Horticultural Society at Wisley (par. 14). Oswald remarks that it was her dream "to be a jobbing gardener in a park or something, to allow time for writing, but because my mother was quite a well-known gardener I kept being put into these high-powered jobs. I'm not as good a gardener as people think" (par. 14). Nevertheless, humble as she is, Oswald as a gardener is good enough to have been employed at Chelsea Physic Garden in London, and then in Devon, as well as at Tapeley Park and Gardens, and at Dartington Hall Estate (Pinard 18). Oswald's experience as a gardener, however, cannot be merely interpreted as a biographical detail. It also proves to be functional in shaping the aesthetics of her poetry. In this regard Pinard notes that "[i]t is perhaps this blending of the ecological sensibilities learned through gardening with those of the poet that makes reading Oswald's editorial and poetic work so compelling, and not only for the many pleasures it brings" (18). Likewise, Bristow also comments on Oswald the gardener as follows: "Oswald's vocation as gardener portends a labour oriented *listener* in the environment, for the gardener invokes the body in motion and rootedness simultaneously" (*The Anthropocene* 98, emphasis added). In a similar manner, I argue that 'listening' operates as an alternative medium that underlines the dethronement of the human observer, for it calls attention to the audial presence of the nonhuman agents in *Dart* and *Sleepwalk*. Oswald's posthuman poetics, therefore, underscores the importance of the physical involvement with the more-than-human world. Parallel to that, being the editor of *The Thunder Mutters: 101 Poems for the Planet* (2006), Oswald dedicates the anthology to the rake, and she describes raking as an activity that enables the human to intra-act with the natural world without necessarily perpetuating a dualistic vision. As Oswald states:

> A dew's harp is a rake (in old Devon dialect). This book is dedicated to the rake, which I see as a rhythmical but not predictable instrument that connects the earth to our hands. Raking, like any outdoor work, is a more mobile, more many-sided way of knowing a place than looking. When you rake leaves for a couple of hours, you can hear right into the non-human world, it's as if you and the trees had found a meeting point in the sound of the rake. ("Introduction: A Dew's Harp" ix)

Accordingly, Neal Alexander remarks that "[o]utdoor work promotes an awareness of the interactions and interdependencies that persist between subjects and objects, human and non-human agents, the body and place" (12). In other words, as Oswald has also suggested, the human cannot be projected as a totally separate figure that observes the natural world from a distanced point of view. Through their physical involvement with the surrounding environment, be it in the form of raking, walking, fishing, running and/or swimming, humans share and belong to the same posthuman space of becoming with nonhuman forces, as will be further scrutinised in *Dart* and *Sleepwalk* below.

On a similar note, though Oswald states that "I never meant to be a full-time poet: I started out as a gardener, an ideal job for a poet because your head is left free" ("Alice Oswald, poet" par. 4), her poetic career defies her self-effacing attitude. Listed among "the 50 greatest British writers since 1945" (Knight, "Tales" par. 3), Oswald makes her introduction to the British poetry scene with her first poetry collection *The Thing in the Gap-Stone Stile* in 1996. Although *Thing* is Oswald's earliest work, it is possible to see her experimentation with traditional poetic forms in her "Sea Sonnets" where the poet bends the rules of the sonnet form to earn a more flexible character to her poems. As stated by Jeanette Winterson, who, along with Carol Ann Duffy, is listed among the fans of the poet, Oswald is regarded to be "making a new kind of poetry" – not just because she bends the formal qualities of traditional verse (qtd. in Armitstead par. 5) but particularly because, as Winterson further states, Oswald does not present the countryside as "a cliched antidote to the city" (qtd. in Armitstead par. 5). In other words, rather than sharpening the urban/rural division and idealising/objectifying the countryside as an alternative that humankind takes shelter in, Oswald adopts a posthumanist vision pushes beyond the nature/culture duality and exposes the agency of the nonhuman matter. In this perspective, it is not possible to restrict the locus of the natural sphere to a particular geography or time scale since nature is everywhere; we have always been entangled with its agential forces. Hence, Oswald grows critical of traditional poetic conventions that

ignore the vitality of the nonhuman matter. Instead of simply pictorializing the countryside and widening the distance between human and nonhuman realms, therefore, Oswald calls attention to an alternative poetic practice that can demonstrate the unpredictability and energeia that are present in the posthuman space. As Oswald herself also expresses in her interview with Fiona Cox:

> When I worked as a gardener I felt very impatient with romantic or pastoral views of the natural world, because it just felt so different. […] And when you actually work up close with things there's a certain uncanniness that doesn't come through in pastoral. […] and for me pastoral poetry is descriptive rather than embodying, so it doesn't actually get me out of my own head. (8-9)

Having grown up in various gardens and finding the opportunity to live "near a bend in the River Dart, in Devon" (Chiasson 78) with her husband Peter Oswald and three children, Oswald is a poet-gardener who is deeply engrossed in nature. Though I do not offer a biographical connection with Oswald's poetry, just by having a look at the title of her collections, it is possible to understand Oswald's deep connection to the realm of nature and how she is keen on "re-imagining Nature's contemporary aspects in truly original ways" (J. Smith, "Alice Oswald" par. 13). Following the publication of *The Thing in the Gap-Stone Stile* (1996), which reflects the poet's love of gardening, Oswald takes part in a three-year book-length project, initiated by Poetry Society's 'Poetry Places' organisation (B. Smith 62). The project covers a detailed research regarding the collection of information distilled through the interviews she made with the inhabitants of the River Dart in Devon, and there appears a polyphonic work melting the voice of the river and of the human in the same pot in *Dart* (2002). In her subsequent collection, titled *Woods etc.* (2005), Oswald assembles the lyrical poems written about nature, and she comments on the participatory quality of the human 'subject' in an encompassing and broad "cosmic scheme of things" (J. Smith, "Alice Oswald" par. 11). In *A Sleepwalk on the Severn* (2009), Oswald again "returns to her favourite river scenario" (par. 12) and focuses on the Severn Estuary and its more-than-human population within the background of the moon's impact over human and nonhuman life forms. In *Weeds and Wild Flowers* (2009), which is also enriched by the etchings of Jessica Greenman, thereby adding a somewhat hybrid quality to the collection in terms of bringing the textual and the visual side by side, Oswald presents a humorous representation of botanical figures that are attributed with

human-like qualities. Oswald's other poetry collections include *Memorial* (2011), which is a retelling of Homer's *Iliad*. Her subsequent collection *Falling Awake* (2016) includes poems about the mutual embeddedness of life and death in a general scheme of interconnected relations. In her last book-length poem *Nobody* (2019) Oswald returns to Homeric epic and presents a minor character inspired from *The Odyssey* – a nameless poet who was exiled to a stony island by Clytemnestra and Aegisthus. Surrounded by the endless fluctuations of the ocean waves, the anonymous poet's presence is balanced with other mythological characters, such as "Helios, Icarus, Alcyone, Philoctetes, Calypso, Clytemnestra, Orpheus, Poseidon, Hermes," that continue "drifting in and out of the poem, surfacing briefly before disappearing" ("*Nobody*: Synopsis" n.p.). Additionally, together with *The Thunder Mutters: 101 Poems for the Planet* (2005) Oswald is also the editor of *Thomas Wyatt: Poems Selected by Alice Oswald* (2008) and *A Ted Hughes Bestiary: Poems* (2014).

Evidently, Oswald's poetry inexorably engages with nature. However, she "hates being called a nature poet" (Armitstead par. 15), because Oswald does not like the idea of being grouped under a certain category. As Porter explains, "Oswald speaks passionately about her engagement with the land, hard work, plants and natural rhythms, but takes issue with labels such as 'nature poet'" ("Interview with Alice Oswald" par. 2). Thus, I argue that Oswald assumes a posthumanist outlook in the light of her criticism regarding the traditional nature poetries' tendency to maintain a hierarchical division between the lyric I/eye and the natural world. As Oswald herself also expresses:

> I have quite a problem with the nature poet label, mostly because it might become a name I could wear comfortably and never have to face the confusions that spring up between poems. I'm not a nature poet, but I admit, I do love the company of plants. They are so expressive and patient. There's an estuary walk which I do almost every day at different times according to the tide (sometimes I have to do it at night), which gives me that human perspective is partial. ("Interview with Alice Oswald" par. 33)

Oswald clearly is a posthuman poet, for she welcomes a "non-dualistic understanding" concerning human-nonhuman continuum (Braidotti 3), and she projects "*a new conceptualization* of the human" (Nayar 13, emphasis in original). Oswald, as we see below, treats the world as a posthuman space, "as an assemblage, co-evolving with other forms of life, enmeshed with the environment" (Nayar 13). Hence, Oswald's disavowal

of the term 'nature poet' demonstrates her criticism of the anthropocentric discourses. As Marcella Durand argues in "The Ecology of Poetry" (2002), Oswald also believes that "[n]ature poetry, à la the human-subject meditating upon a natural object-landscape-animal as a doorway into meaning of the human subject's life, is now highly problematic" (59).

Accordingly, in *Dart* and *Sleepwalk*, Oswald exchanges the colonising gaze of the *lyric I/eye* with that of the non-colonising *ear*, and she introduces a democratic and ecological perception in that through the act of listening the human gets fully immersed in the more-than-human world. As Thacker states, for Oswald "participation in the environment is dependent upon being able to listen" (109), for it enables a co-existent and mutual form of relationality between self/subject and other/object; listening blurs the distinction between the two. The act of listening, therefore, constitutes an important element of Oswald's posthuman poetics in that it alerts the reader to the audial presence of the natural world. As MacKenzie further explains, for Oswald

> the development of a poem involves listening, both in terms of attentiveness to a natural subject (such as the ecological and social complexity of the titular river in her long poem *Dart*) and also in terms of attention to the ambiguities of language itself. […] In other words, listening for Oswald is part of the process of writing and can lead her beyond self-expression in the act of making the poem, bringing in conscious and subconscious influences from the external world and literary history, as well as to the possibility of succumbing to the rhythms, rhymes and alliterations inherent in the musicality of the poem as she makes decisions in the act of creation. (190)

In this perspective, Oswald, too, becomes part of this creative writing process without enforcing her dominance over her work, and she simply chooses to recognise the natural 'subject' as a dynamic force that brings random intra-actions to the foreground. Therefore, as long narrative river poems, *Dart* and *Sleepwalk* afford a "prolonged immersion" (Bristow, "Affective" 2) in a posthuman space of becoming. They show how the hierarchical boundaries between the self and the other are erased through listening to the nonhuman voices and registering their intra-action with the human.

2.2. REPRESENTATION OF THE POSTHUMAN SPACE IN *DART*

Oswald's *Dart* challenges the traditional construction of the human as a privileged self who uses the nonhuman realm as a mirror to reflect his/her emotions and thoughts. In this context, instead of placing a human speaker at the centre, *Dart* brings together the voices of different people that intra-act with the River Dart.[52] The river itself is also depicted to take part in this polyphonic (con)fusion. As a posthuman poem, therefore, *Dart* surpasses the borders between human characters and the river Dart by creating a trans-dialogic narrative where humans and the river continue speaking through one another. In other words, the poem illustrates how the intra-action between human speakers and the Dart introduces a collective voice that is represented through a first-person pronoun – used interchangeably by various agents. Rather than signifying the dominance of a single voice, however, the lyric I points to a dynamic process that continues to be shaped through the intra-action between the human characters and the river in the poem. In this respect, the content and the narrative structure of *Dart* work together to display the dissolution of the normative humanist thinking and to expand our limited perception so that we will be able to think in more-than-human terms. Hence, instead of emphasising the dominance of the human gaze that is mostly seen in traditional nature poetries, Oswald draws attention to the interconnectedness of human and nonhuman voices that come together to form "a sound-map of the river, a songline[53] from the source to the sea" (*Dart* n.p.), and she uses the River Dart as a "creative border space where the boundaries between self, voice and environment become blurred" (B. Smith 59).

Notwithstanding, at this point, it is of utmost importance to dwell on a basic problem that Katarina Luther has proposed in "Stream Worlding: Diffractive River Poetics in Alice Oswald's *Dart*" (2019). In her article, she questions how "a river *on the ground* in Devon, England, can be materially entangled with the voices of Dart dwellers on the page in Oswald's long poem" (par. 1, emphasis in original). As a solution, Luther applies Karen Barad's methodology of diffractive[54] reading to *Dart*. As she explains, "[w]ithin Barad's diffraction framework of no isolation, one is intra-actively constituted through the specific other" (par. 2). Since all voices in *Dart*, including the poet-narrator, the river-characters and the river-itself speak through one another, "Dart's diffracted texture allows for a literary consciousness, a material awareness, on the page, which creates a present-

as-river thickness that collects all human and nonhuman river voices into an enriched *now* as we read the text" (Luther par. 9, emphasis in original). In compliance with the tenets of posthuman space, where every entity belongs to a dialogic site, the diffractive methodology also provides a meeting point where the river Dart/(there) and the poem *Dart*/(here) continue to flow through each other, hereby enabling the poet and the reader/listener to explore the instability of the porous frontiers.

Following the route of the river, *Dart* is constructed upon a flowing basis that exemplifies the dialogic set of intra-actions between human voices and the voice of the river. As B. Smith elucidates further, this dynamic account of the river is also displayed in the form of the poem as it "moves through long and short lined verse, prose poetry, rhyming couplets, stanzas with repeated refrains and even the fixed forms of sonnets and ballads. Just when it appears to have achieved a stable form, the rhythm is interrupted and broken by another voice" (66). In this way, Oswald achieves to formulate an eco-mimetic form that is inspired by the streaming aspect of the river itself, and this enables the poet to go beyond the static and anthropocentric subjectivity of a single human speaker in *Dart*. As Oswald herself also expresses:

> The river twice pointed out to me that water is greater than poetry. Ideally I'd create water, but I've had to make do with mimicking it – a rush of selves, a stronghold of other life-forms. So the poem's full of voices. It's made of scraps of talk from people who live and work on the Dart. Not entirely by me at all. I wanted to give the poetic voice the slip, to get through to technical, unwritten accounts of water. (*Don't Ask Me* 208)

The songline, therefore, is an important concept that indicates the "interconnectedness of landscape and voice" (B. Smith 59); it suggests the material embeddedness of the human and the nonhuman matter within an aural confluence. Furthermore, songlines "are part of a pre-colonial, oral culture that does not separate history from geography" (Jos Smith 99) and, hence, they allow transcending the anthropocentric limitations of the lyric self by presenting an eco-conversation that challenges the supremacy of the authoritarian human gaze over the material world. Poetry, therefore, functions as the best medium to re-connect the human to the premises of oral culture since, as Oswald also expresses, "[t]he rhythms of poems travel instantly into that pre-literature part of the mind" ("Interview

with Alice Oswald" n.p.). Accordingly, Oswald's choosing the songline "as a poetic form […] enables her to explore and inhabit an ecocentric voice" (B. Smith 59) in *Dart*.

Moreover, acknowledging the fact that it is not possible to write "with total accuracy *about* water," Oswald uses the songline as her "alternative method" since it allows "her to write *with* water by replicating its movements and forms" (B. Smith 65, emphasis in original). Therefore, as "a water poem, a poem of fluency," *Dart* illustrates the way in which both the content and the form of the poem can go hand in hand to illustrate the "porous boundaries" between all human and nonhuman beings (Baker 109). In this regard, as a posthuman poet, Oswald acknowledges the impossibility of representing the water, for the river has its own agentic power; therefore, it cannot be objectified by the lyric I/eye thoroughly. Nevertheless, as an intermediary force behind *Dart*, Oswald uses the figurative language as her means to move through this impossibility, and she incurs an eco-conversation between human and nonhuman entities. Therefore, the poetic voice can no longer claim a distinct position for him/herself, for everything exists within a posthuman space that operates on a level of permeable relations in *Dart*.

Dart underlines the process in which the river, as a nonhuman agent, has the ability to implement changes in the perceptions and the behaviours of human voices that continue flowing with its current. The fluctuating character of the narrative pace in the poem, therefore, indicates the impossibility of representing the River Dart from an anthropocentric standpoint since its vibrancy draws our attention to the collective existence shared by humans and nonhumans. In this sense, acknowledging the vitality intrinsic to the river, Oswald notes that "[a]ll voices should be read as the river's mutterings" (*Dart* n.p.), and she projects a posthuman space of becoming where no sharp distinctions can be drawn between the human and the more-than-human world in her poem. Hence, it can be argued that the River Dart itself becomes an epitome of a posthuman space of becoming where all voices come together to share an equal status.

Dart traces the course of the River Dart "from its source in Cranmere pool high on north Dartmoor to Dartmouth and the sea" (Danvers 205), and it continues collecting the voices of human and nonhuman entities as it reaches to the sea. In addition to the voice of the

river, *Dart*'s vocal community covers a wide range of characters belonging to different social backgrounds, as well as the voices of mythic and deceased figures, and that of the poet figure "who comes and goes throughout the poem, usually speaking of the river" (Baker 108). Each group of people have their own way of communicating with the flow of the Dart, and they come up with a different story that eventually gets united with the mutterings of the river. Classifying human voices under three main categories, Baker states that

> [t]here are the *contemplative* types: a walker, a naturalist, an eel-watcher, a seal-watcher, a character called a rememberer, and a dreamer. There are the *recreational* types: a fisherman, a canoeist, a number of swimmers, several boaters and boat-builders, and an old couple who have come to an inn by the river to see a waterfall. Above all there are the *workers*: a tin-extractor, a bailiff, a forester, a chambermaid, a water abstractor, a worker at a woollen mill, a dairy worker, a sewage worker, a stonewaller, a salmon netsman, an oyster gatherer, a ferryman, a crabber, a navel cadet. (109, emphasis added)

Within this polyvocal substratum, the lyric I constantly changes from one voice to another, and the reader becomes a "witness to the development of a hybrid or multiple state of being" (Yeung 153). Hence, it is functional that *Dart* starts with a question, for it indicates the dialogic and polyvocal basis that is to shape the whole poem. The river asks: "Who's this moving alive over the moor?" (Oswald, *Dart* 1) and, instantly, it is answered by the voice of the poet figure who points to the old man: "An old man seeking and finding a difficulty" (Oswald, *Dart* 1). As the poet figure continues describing the old man, "[t]he poet, or the old man, or both, then ask a question of their own" (Baker 113): "Who's this issuing from the earth" (Oswald, *Dart* 1)? Here, the river, the old man and the poet herself form a dialogic interface that links human and nonhuman entities together, and the Dart repeats the same question only to be answered by the old man (the walker) himself:

> The Dart, lying low in darkness calls out Who is it?
> trying to summon itself by speaking . . .
>   the walker replies
> An old man, fifty years a mountaineer, until my heart gave out,
> so now I've taken to the moors. I have done all the walks, the Two
> Moors Way, the Tors, this long winding line the Dart (Oswald, *Dart* 1)

As can be seen, the note in the margin ("the walker replies") enables the reader to distinguish the identity of the speaker clearly; however, in the following lines the voices continue blending into one another (Oswald, *Dart* 1). Since the old man (the walker) and the River Dart take part in a dialogic interfusion, it becomes rather difficult to decide who is speaking to whom at this point:

> this secret buried in reeds at the beginning of sound I
> won't let go of man, under
> his soakaway ears and his eye ledges working
> into the drift of his thinking, wanting his heart
>
> I keep you folded in my mack pocket and I've marked in red
> where the peat passes are and the good sheep tracks
> cow-bones, tin-stones, turf-cuts.
> listen to the horrible keep-time of a man walking,
> rustling and jingling his keys
> at the centre of his own noise,
> clomping the silence in pieces and I
>
> I don't know, all I know is walking. Get dropped off the military track from Oakenhampton and head down into Cranmere pool. It's dawn, it's a huge sphagnum kind of wilderness, and an hour in the morning is worth three in the evening. You can hear plovers whistling, your feet sink right in, it's like walking on the bottom of a lake. (Oswald, *Dart* 1-2)

Obviously, as stated, the lyric I in these lines does not necessarily refer to the presence of a central speaking subject. In line with the flux of the river, the enjambments that follow the first-person pronoun not only leave the lyric I stranded up in the air, but they also afford the poem with a flexible structure. Since the lyric I alternates between the speeches of the old man and of the river, it is not possible to draw firm lines between human and nonhuman voices in *Dart*. While the river starts speaking at the beginning of the quote, announcing that it "won't let go of man," in the next stanza the old man starts talking about his being knowledgeable about the peat passes and the good sheep tracks, for they are all marked in red in his map (Oswald, *Dart* 1). Here, the voice of the river intervenes, and it urges the reader to listen to the old man who continues "rustling and jingling his keys / at the centre of his own noise" (Oswald, *Dart* 2). Right after, as the lyric I is held in suspension at the end of the line "clomping the silence in pieces and I," the voice shifts from that of the river to the old man once again (Oswald, *Dart* 2). This time, however, the change in voice is also reflected in the structure of the poem, for the old man starts

talking in prose. The fluctuating narrative structure in *Dart*, therefore, creates a sense of unexpectedness and ambiguity; it highlights the blurring of the borders between human voices and the voice of the River Dart in the poem's posthuman space of becoming. Soon enough, the speech of the old man gets interrupted by the voice of the River Dart, which asks him to

> listen,
> a
> lark
> spinning
> around
> one
> note
> splitting
> and
> mending
> it (Oswald, *Dart* 2)

In contrast to the straight syntactical structure that has been implemented through the prosaic speech of the old man, here the river's voice draws attention to the song of the lark which is projected upon a perpendicular line arrangement. Pointing to the illustrative aspect of this section, Yeung states that "this change of trajectory is imagistic and visual as the one-word lines of the lark song illustrate physically the spiralling flight of the bird and the nature of its song" (154). The lark song can, thus, be interpreted to be reflecting the songline that stretches from the source of the Dart to the sea. Within this replacement of the prosaic by the poetic, therefore, *Dart* suggests that the old man is bound to exchange his domineering gaze with a more democratic form of engagement with the nonhuman world via listening. Only after stripping himself off the short-sighted vision of the anthropocentric discourse can the old man immerse himself in the all-encompassing voice/songline of the Dart and can meet the river directly. In the lines below, we see how the old man's prosaic speech gets interlinked with the voice of the Dart:

> and I find you [the river] in the reeds, a trickle coming out of a bank, a foal
> of a river
>   [the river's voice]
> one step-width water
> of linked stones
> trills in the stones
> glides in the trills

>eels in the glides
>in each eel a fingerwidth of sea (Oswald, *Dart* 2)

Since all voices are to be read as the mutterings of the river, the old man's voice is gradually subsumed by the Dart itself. This is the reason why, right after the old man attempts to make a distinction between himself and the river by saying "*I find you in the reeds*" (Oswald, *Dart* 2, emphasis added), the prosaic speech of the old man, once again, gets replaced by the song-like lines that blur the division between the self and the other. In *Dart*, this co-existence is aptly illustrated in the spiralling amalgamation of stones, trills, glides, and eels into one another – all of which are to get interwoven within "a fingerwidth of sea," in the end (Oswald, *Dart* 2).

Hence, the River Dart not only functions as a poetic material that justifies the structural interfusion of prose-poetry, but it also illustrates the spiralling of different voices that continue intermixing. Put differently, the river provides the locus where this intra-activity can be observed all through the poem. Thus, the Dart itself becomes a metaphor for the posthuman non-hierarchy. Regardless of the notes the poet inserts in the margins – which allow the reader to make a distinction between alternating voices – the running of the Dart continues blending and connecting the identities of human characters and that of the river. In this way, rather than prioritizing any of the human and/or nonhuman voices in the poem, the first-person pronoun indicates the shared existence of both parts. Pointing to the mutability that comes along with the flow of time and also of the river, Atasoy calls attention to the end of the poem where "the individuality of the human melts within the whole natural space" (35). When the river meets the sea at the end of the poem, we hear a sealwatcher – who is the last speaker indicated in the margin – entering into a cave where the seals are resting:

>each winter they gather here,
>twenty seals in this room behind the sea, all swaddled
>and tucked in fat, like the soul in is cylinder of flesh.
>
>With their grandmother mouths, with their dog-soft
>   eyes, asking
>*who's this moving in the dark? Me.*
>*This is me, anonymous, water's soliloquy,*
>
>all names, all voices, Slip-Shape, this is Proteus,

       whoever that is, the shepherd of the seals,
       driving my many selves from cave to cave … (Oswald, *Dart* 48, emphasis added)

In these lines, the question that was asked at the beginning of the poem, "Who's this moving alive over the moor?" (Oswald, *Dart* 1), is echoed by the seals' eyes. This time, however, the response comes from the sealwatcher whose identity has long been immersed in that of the River Dart. Hence, by the end of the poem we see how the co-existence of human and the more-than-human world is reflected in the answer given: "Me. / This is me, anonymous, water's soliloquy" (Oswald, *Dart* 48). Instead of giving a direct answer, as the old man does by using the first-person pronoun in the beginning of the poem, here the sealwatcher just answers 'me' which, as Goursaud argues, "contains a maternal and fertile multitude" (par. 12). Through the reflection of the sealwatcher's self on the surface of the water, the river and the sealwatcher's presences come together to assume an anonymous character that negates the authority of a single figure. Therefore, the poem purposefully blurs the distinction between the subject and the object by using 'me' as both a subject and an object pronoun.

Accordingly, it is notable that at the end of the poem the sealwatcher refers to the Greek god Proteus, who is also known as the old man of the sea and the shepherd of the seals ("Proteus" n.p.). Proteus, whose name comes from the word 'protean' – which means variable and fluctuating – is known for his ability to change shape. Similarly, as the fluctuating account of the altering voices in *Dart* also testifies, everything is subject to mutability and change in a posthuman space of becoming. Therefore, though the poem finalises – at least within the limits of the textual space of *Dart* – the River Dart continues streaming, and it meets the sea. As Drangsholt states "[t]he kind of mobility suggested here is also manifested by the three dots that end the poem, manifesting the mobility and mutability of poetic discourse as it is subtly altered into the page's blankness" (16). In the same vein, far from closing with a sense of total immobility, the end of the poem "is full of fertility, renewable powers, recreation, and regeneration" (Bristow, "Contracted" 13) – as justified through the mating of the seals, which foreshadows an ongoing process of becoming and creativity. Hence, "[a]lthough the Dart dissolves into the sea, this does not mark the end of the river because there are still masses of water emanating from its source and people living with the river, thus rendering the Dart's generation of self-

consciousness an endlessly circulating process" (Reimann 8). As a result, incorporating the voices of the human and the more-than-human world as it flows into "a plural identity of many rivers, or ultimate accumulation, the sea" (Bristow, *The Anthropocene* 87), the end of the poem announces that the River Dart is to go on muttering its polyphonic song within a posthuman space of dialogic interfaces.

The posthuman space of the Dart accommodates not only the living bodies that are in conversation with one another, but also the dead bodies which, as actants[55] "are given as strong a voice as the living" in the poem (Davis 3). Among these, we also have the voices of the Dart's ghostly and mythological figures. The voices of the dead present the River Dart as a source of death as well as life: the river functions as a medium which enables people to make a living, but it is also a place where people can drown and lose their lives. Thus, in line with the eco-centric perspective, the poem also underscores the mutual embeddedness of life and death, for they are both components of a cyclical flow that continues renewing itself.[56]

Obviously, in this "Oswaldian meshwork" (Bristow, "Bioregional" 6) every non-living body also becomes part of the natural cycle through rotting. One significant example to this natural cycle of death leading to life, can be observed in the story of Jan Coo. Jan Coo is one of those legendary figures who drowned in the Dart, but his death does not mark an end; instead, it contributes to the regenerative cycle in the river. Through the corporeal dissolution of Jan Coo's body in the river, therefore, *Dart* shows how the human and the river share a state of becoming. At this point, though the poem does not explicitly tell us who is speaking, it is most probable that it is the poet figure who describes the scene – because Jan Coo and the River Dart are both addressed in the third person below:

> Now he's so thin you can see the light
> through his skin, you can see the filth in his midriff.
>
> Now he's the groom of the Dart – I've seen him
> taking the shape of the sky, a bird, a blade,
> a fallen leaf, a stone – may he lie long
> in the inexplicable knot of the river's body (Oswald, *Dart* 4)

As Reimann explains, Jan Coo's "corporeal dissolution is emphasised through his skin's increasing transparency, an indication of organic decay" (10). This allows Jan Coo to transform into various bodies – signifying the regenerative cycle that is fundamental to the ecosystem. Within this context, as Reimann further argues, Jan Coo's "death and natural resurrection can be perceived as a cyclical movement that is inherent in the natural stream of the river. It starts from its obscure source, flows towards the sea, is transported into air through evaporation and comes down to earth as rain, thus completing its perpetual cycle before it starts anew" (11). The river, therefore, exhibits the physical enmeshment of human and nonhuman bodies in its posthuman space. On the other hand, however, while Jan Coo's body shrinks away, he turns into a legendary groom that is symbolically married to the River Dart. Juxtaposing the dissolution of Jan Coo's rotting flesh with his ultimate unification with the bridal body of the Dart, the poem also marks the mutual co-existence of Jan Coo and the river, whose murmurings continue overlapping. It is best observed in the recurring/haunting voice of Jan Coo whose name, as indicated in the marginal notes in the poem, "means So-and-So of the Woods, he haunts the Dart" (Oswald, *Dart* 4). Hence, the drowned figures like Jan Coo, continue merging with the river, and their voices reach beyond time and place through the mutterings of the Dart in the poem:

> And so one night he sneaks away downriver,
> told us he could hear voices woooo
> we know what voices means Jan Coo Jan Coo.
> […]
> Jan Coo! Jan Coo!
> have you any idea what goes into water?
> […]
> I saw a man fallover the edge once:
> oo oo oooo … (Oswald, *Dart* 4; 25; 39)

Similar to Jan Coo whose corporeal dissolution in the Dart turns him into a legendary figure whose voice reaches beyond, John Edmunds who drowned in 1840 also shows how his corporeal connection with the river starts shaping his voice. As John Edmunds becomes unable to breathe since the water starts filling his lungs, the distinction between his voice and that of the river becomes blurred:

> all day my voice being washed away   at Staverton Ford,
> out of a lapse in my throat   John Edmunds being
>   washed away, 1840
>
> like after rain
> little trails of soil-creep
> loosen into streams
>
> if I shout out,
> if I shout in,
> I am only as wide
> as a word's aperture
>
> but listen! If you listen
> I will move you a few known sounds
> in a constant irregular pattern:
> flocks of foxgloves spectating slightly bending … (Oswald, *Dart* 20-21)

While the drowning of John Edmunds is associated with his not being able to utter any intelligible words, for the water is also filling his mouth, the poem does not lament this. On the contrary, as the humble realisation of John Edmunds also testifies, he may "only be as wide / as a word's aperture" since he will not be able to talk from that moment onwards (Oswald, *Dart* 21). However, if the human 'subject' closes his/her overbearing gaze and takes notice of the audial presence of the nonhuman realm, the poem insinuates that s/he can hear the unutterable: that is the interlocking mutterings of Edmunds and the river, which in the wider perspective reflects the dissolution of the borders between the subject and the object. According to Munro, using "different modes of language to give voice to something unsayable" marks "one of Oswald's triumphs in the book" (par. 5). Thus, Edmunds's ultimate realisation that his voice finally interweaves with the river shows how he "becomes a part of the river's history as well" (Atasoy 38). Hence, both the Dart's and John Edmunds' voices get audially entangled in a posthuman space of becoming:

> this is my voice
> under the spickety leaves
> under the knee-nappered trees
> rustling in its cubby-holes
>
> and rolling me round, like a container
> upturned and sounded through
>
> and the *silence* pouring into what's left maybe eighty
>   seconds (Oswald, *Dart* 21, emphasis added)

It is also important to note that this silence takes place towards the middle of *Dart*, and "creates the only division within the poem" (Bristow, "Contracted" 10). As Bristow elaborates more, "[i]t is the first moment of rest for all of the three voices at play" (10). To be more precise, here the voices of the river, the poet-narrator, and the (non)human inhabitants of the river come to a standstill; and this allows Oswald "to enable greater listening and to trigger the possibility of giving oneself over to, or entering into, an other's intelligence" (10). In this moment of transitory stillness, the poem points to a non-hierarchical consensus of deeper reflection:

<div align="right">silence</div>

Menyahari – we scream in mid-air.   swimmer
We jump from a tree into a pool, we change ourselves
into fish dimension. […] (Oswald, *Dart* 22)

Nevertheless, the silence is broken by the scream of a group of swimmers who jump into the river and change themselves "into the fish dimension" (Oswald, *Dart* 22). As the poem progresses and the Dart continues flowing, it becomes more difficult to make distinction not only between the voices of human and nonhuman characters but also between the corporeal frontiers that set them apart. Accordingly, in line with the projection of the River Dart as a "site of metamorphosis" (Yeung 164), the metaphorical (con)fusion of the swimmers and the fish delineates the permeability of the so-called distinctions between them. Having been submerged by the water physically, the human can no longer be seen as the authoritarian force upon the more-than-human world; instead,

s/he becomes a component that shares the same posthuman space of becoming with the nonhuman population of the River Dart.

Focusing on the reflections of an anonymous swimmer from the group, the poem goes on to describe how the body of the human gets immersed in the water and how this particular experience gets reflected on his mind and understanding. In this regard, Alexander suggests that "Oswald's poetry exhibits a nuanced awareness of the crucial role played by body in meditating experiences of place, and of the human senses as interfaces between any notional inner self and the world outside" (11). In this sense, Oswald also goes beyond the Cartesian mind/body dualism because in her designation of a posthuman space of becoming in *Dart*, the boundaries between the textual and the material are also presented to be deeply entangled with one another – so much so that even "language itself is [shown to be] a product of our physical interactions with our environment" (B. Smith 67):

> water with my bones, water with my mouth and my
>   understanding
> when my body was in some way a wave to swim in,
> one continuous fin from head to tail
> I steered through rapids like a canoe,
> digging my hands in, keeping just ahead of the pace of
>   the river,
> thinking God I'm going fast enough already, what am I,
> spelling the shapes of the letters with legs and arms?
>
> S SSS   W
>
>   Sloshing the Water open and
>
> MMM
>
>   for it Meeting shut behind me (Oswald, *Dart* 22-23)

Using the letters 'S,' 'W,' and 'M' of the verb 'to swim,' the swimmer describes his movements through the River Dart's watery surface. However, the letters create a sonic impact more than a visual one, and they "illustrate what swimmer feels when jumping into the water" (Aber par. 5). It is also important to note that while the capital letters 'S,' 'W,' and 'M' are also matched with the swimmer's "actions in relation to the river, 'S[looshing]/W[ater]/M[eeting]'" (Yeung 164), the first-person pronoun and also the

letter 'I' of the word SWIM is missing. Despite the missing letter, the verb that defines the action of swimming can still be read by following the next lines in the poem. Hence, it can be asserted that rather than the first-person pronoun, it is the act of swimming that is foregrounded in this section. In a posthuman space of intra-active relations, however, it would be a mistake to ignore the presence of the human. Accordingly, the dissolution of the first-person pronoun 'I' does not necessarily indicate the absence of the human. Instead, as Bristow explains, "in *Dart* the *eye* of (i)ndividual (i)nvolvement is dropped for a different address in the third site, the extension of embeddedness and involvement" ("Contracted" 11-12, emphasis added). In other words, the swimmer's 'I' flows into the current of the River Dart, and the dominance of the lyric I/eye gets replaced by an extended sense of the human-nonhuman continuum that carries us into a deep-seated eco-conversation with the nonhuman sphere. Within this scheme, it is no longer possible to delineate the human as a distant observer; instead, s/he is shown to be embodied within a posthuman space where the *being* of the human is entangled with the *becoming* of the river Dart. The missing 'I,' therefore, signals a more comprehensive understanding that shows "not only how we are embedded in textual representations of nature, but nature too is absorbed in human culture" (Bristow, "Contracted" 12). From this point onwards, therefore, the first-person pronoun, signalling to the identity of the swimmer, is replaced by the third person narrator in this section. In this way, along with the swimmer, the reader/listener is also able to dive deeper into the river, as well as into the textual surface of *Dart*:

> He dives, he shuts himself in a deep soft-bottomed
>   silence
> which underwater is all nectarine, nacreous. He lifts
> the lid and shuts and lifts the lid and shuts and the sky
> jumps in and out of the world he loafs in. (Oswald, *Dart* 23)

Having been totally immersed in the current of the Dart, the swimmer is not able to situate himself on a static platform. Instead, he continues flowing with the river and forms a connection with the nectarine ground of the riverbed and the glittering sky above. Hereby, the vertical and the horizontal spheres get connected – which indicates the incorporation of the opposite ends within a posthuman space of becoming. Hence, the missing 'I,' too, continues re-appearing, and it evolves from one voice to another throughout the poem.

As stated, *Dart* does not follow a systematic narrative structure but flows with the shifting voices and perspectives that fill and empty the first-person pronoun. Not being limited to a chronological sequence of events, the "turbulent voice patterns of the river […] reach backwards and forwards irrespective of temporality" (Yeung 172). Within this scheme, the intra-action between the river and the (non)human entities goes on to formulate the polyphonic account of the Dart as the river continues flowing from its source to the sea. What is important to note here is the fact that each (non)human voice has its own way of communicating with the river. Hence, each speaker demonstrates the richness and variety that is mainly rooted within this mutual relationship that does not prioritise the self over the other but emphasises the gates of passage between them. "The poem's democracy," as Aber calls it, therefore, "comes alive in who's capturing the river" (par. 6). The notes in the margins allow the readers to follow "who 'enters' the scene as if in a play" (Aber par. 6). However, it should not be forgotten that what the poem foregrounds is the continuous flow of the changing perspectives and emotions of the speakers who all meet in the main current of the River Dart and continue guiding "the river's speech by offering their insights, myths, dreams, songs and imagery" (Aber par. 6).

Accordingly, the interlocking voices of a chambermaid, an old couple, and a naturalist illustrate how the poem flows onward and collects the perceptions and the reflections of these seemingly unrelated figures. The speeches of the chambermaid and the old couple are presented at a parallel point in time. In other words, the reader hears the chambermaid cleaning the room of the old couple, while the couple are watching a waterfall by the river: "Only me, Room-Cleaning, number twenty-seven, an old couple – he's blind, she's in her nineties. They come every month walking very slowly to the waterfall. She guides him, he props her. She sees it, he hears it" (Oswald, *Dart* 4-5). Right after, the speech of the chambermaid is replaced by the overlapping dialogue of the old couple – which is separated from the soliloquy of the chambermaid through parenthesis:

> (Where are we turning you are tending to slide is it mud what is it that long word
> meaning burthensome it's as if mud was issuing from ourselves don't step on the
> trefoil listen a lark going up in the dark would you sshhhhh?) (Oswald, *Dart* 5)

The lack of punctuation makes it difficult to understand who is speaking to whom at this point in the poem. However, since the chambermaid has already noted that the old man is blind, the reader knows that the old man cannot see the waterfall but can hear it only. Hence, it becomes easier to decrypt the dialogue above: The old man is guided by the directions of his wife, who asks him not to step on the trefoil; whereas the wife is reminded by the husband to keep quiet and listen to the lark. The communication of the old couple, therefore, represents the need to develop a unitary perception that does not merely rely on the eye, but also takes the aural existence of the natural world into consideration.

The interconnection we observe in the section above extends to the voice of the naturalist who not only hushes the voice of the chambermaid – who is heard again following the inserted dialogue of the old couple above – but also forms an audial link with the old man's call for silence:

> […] would you sshhhhh?) Brush them away, squirt everything, bleach and vac and rubberglove them into a bin-bag, please do not leave toenails under the rugs, a single grey strand in the basin
>
> shhh I can make myself invisible   Naturalist
> with binoculars in moits places. I can see frogs (Oswald, *Dart* 5)

The repetition of the sounds "sshhhhh" and "shhh" (Oswald, *Dart* 5) turns the reader's attention from the visual to the audial in the sense that it creates an atmosphere in which the reader, too, turns into a listener, and becomes part of the audial confluence of *Dart*. Hence the poem once again emphasises the verbal presence of the natural world – that it is capable of exhibiting itself as a vital agent that destabilises the anthropocentric perceptions of the human 'subject.'

The naturalist's camouflaging herself so as to be able to collect data about the natural world may incur a subject/object division regarding the observant status of the human. However, the naturalist is not simply interested in "gathering quantitative data," but, as Middleton argues, "Oswald brings out some of the qualitative aspects of this particular naturalist's activities" (163). In other words, although it is part of her profession to adopt a scientific point of view, the naturalist's deep-seated connection with the nonhuman

sphere allows her to go beyond the ego-centric perception of a scientist. As she herself also expresses: "I'm hiding in red-brown grass all different lengths, bog bean, sundew, I get excited by its wetness, […] I know two secret places, call them x and y where the Large Butterflies are breeding, it's lovely, the male chasing the female, frogs singing love songs" (Oswald, *Dart* 5). Hence, the naturalist is not described as an all-domineering human 'subject,' but as a component within a posthuman space of becoming in the poem: "she loves songs, she belongs to the soundmarks of larks" (Oswald, *Dart* 5). This is the reason why, the naturalist can discern the audible presence of the nonhuman agents – without prioritising the hegemony of the human gaze over them. Through the image of a naturalist, who does not objectify the material world but sees herself as a mere part of it, therefore, *Dart* presents a posthuman space where the agential existence of the nonhuman matter is acknowledged. This interlaced quality of life is also illustrated in the naturalist's description of a heron eating an eel alive (Oswald, *Dart* 5). The eel goes on to chew "its way back inside out / through the heron's stomach" – perhaps to be eaten by another heron flying above the river (Oswald, *Dart* 5), thereby demonstrating a cyclical pattern that underlines the ecological equilibrium based on inter-species interdependency. In a similar manner, just like the eel which finds its way inside and out of the stomach of the heron, the River Dart "drifts in and out of the consciousness of the voices that articulate and occupy it" (Yeung 157). Within this perspective, the naturalist is succeeded by an eel-watcher who starts reflecting on the visual atmosphere of the river:

> two places I've seen eels, bright whips of flow
> like stopper waves the rivercurve slides through
> trampling around at first you just make out
> the elver movement of the running sunlight
> three foot under the road-judder you hold
> and breathe contracted to an eye-quiet world (Oswald, *Dart* 5-6)

The eel-watcher continues describing the Dart in pictorial terms, for s/he talks about the glittering rays of the sunlight, while the movements of the eels create little waves on the surface of the river. Right after, however, the perspective moves from the surface of the river to the underwater as the vision gets blurred, and everything gets "contracted to an eye-quiet world" where the anthropocentric perspective of the human gaze can no longer function properly (Oswald, *Dart* 6). From this point onwards, the visual descriptions of

the eel-watcher lose their sharp edges in the sense that the language gets more lyrical and abstract:

> while an old dandelion unpicks her shawl
> and one by one the small spent oak flowers fall
> then gently lift a branch brown tag and fur
> on every stone and straw and drifting burr (Oswald, *Dart* 6)

Rather than freezing the moment, and rendering it as a limited experience, the eel-watcher describes his experience of the river in terms that emphasise an expansiveness: "I let time go as slow as moss, I stand / and try to get the dragonflies to land / their gypsy-coloured engines on my hand" (Oswald, *Dart* 6). Here, the eel-watcher can be compared to a mediating persona that sees the natural world as a source of inspiration as in the Romantic tradition. Nevertheless, as the voice of the river continues to intervene, "the eel-watcher's primacy of vision" gets balanced "with a reciprocal primacy of voice and mediation" (Yeung 157) that takes the agency of the nonhuman realm into account. In the posthuman space that is delineated in the poem, therefore, the eel-watcher and the river start talking through each other, hereby blurring the dualisms of self/other, subject/object and human/nonhuman. Thus, the eel-watcher starts wondering and asks:

> whose voice is this who's talking in my larynx
> who's in my privacy under my stone tent
> where I live slippershod in my indoor colours
> who's talking in my lights-out where I pull to
> under the bent body of an echo are these your [the river's]
> fingers in my roof are these your splashes (Oswald, *Dart* 6)

Here the eel-watcher discovers that the voice of the river has penetrated into his own larynx – suggesting the fact that they share the same anatomical voice box and their voices continue flowing into one another. As Baker also expresses, "[h]e is what he is (an eel-watcher) and otherwise (a voice of water) at the same time. […] Mimesis is a crossing. Involving a recognition of the self in the other and the other in the self, it releases us from a wholly strategic stance towards everything" (106). Thus, the poem can never rest on a fixed destination; rather, it shows

> how the lyric might hold up to environmental, cultural, political, and personal
> dimensions of a particular place in order to better equip us to reconcile ourselves

with the world. *Dart*, after all, isn't merely descriptive record. Nor is it cheap ventriloquism. Rather, Oswald's is an invitation to "put your ear to it" — "it," of course, meaning an extended body of water that is ultimately less about the poet's own subjectivity than the source of a deep ongoing and meaningful investigation. (Lessley par. 2)

Evidently, Oswald's portrayal of the river as an all-encompassing vital force also turns it into a posthuman space where all hierarchical divisions are negated. Thus, the poem is based on points of convergence rather than of separation. In accordance with the flowing movements of the river, Oswald also draws attention to the uncontrollable energy that is present in the water. When transformed into a powerful torrent, the water sweeps away everything that it comes across. Therefore, it is a vain attempt to draw border lines, because in a posthuman space of becoming – just as the way the water defies any boundaries – humans and nonhumans belong to a flow of intra-active relations. In this respect, it is important that the East Dart and the West Dart collide at Dartmeet, indicating the fact that the fractural pathways are bound to flow into one another:

> Dartmeet – a mob of waters
> where East Dart smashes into West Dart
>
> two wills gnarling and recoiling
> and finally knuckling into balance
>
> in that brawl of mudwaves
> the East Dart speaks Whiteslade and Babeny
>
> the West Dart speaks a wonderful dark fall
> from Cut Hill through Wystman's Wood
>
> *put your ear to it, you can hear water*
> *cooped up in moss and moving*
>
> slowly uphill through lean-to trees (Oswald, *Dart* 10-11, emphasis added)

Here, it should be noted that in Oswald's articulation of a posthuman space of becoming – which is mainly built upon a representation of the collective existence of humans and the river in *Dart* – the poet does not necessarily embrace a holistic vision that can be suppressive and limited in its tendency to ignore the differences. Hence, the presence of the East Dart and the West Dart works very much in line with the premises of the river's expanding self in the sense that "the Dart can only be an I or a self because it

simultaneously is a We, meaning that intersubjectivity and subjectivity stand in a reciprocal relation" (Reimann 6).

As the two tributaries of the Dart come together at Dartmeet, the reader is invited to listen to the new vocal fusion that the river encompasses. Accordingly, as Yeung argues:

> In this next section the definitions of "Dart" are expanded from the obvious (river and movement): the apparatus tells us that Dart is old Devonian for oak. Also, new voices are introduced here to the poem: a forester and a water nymph. In this way, Oswald expands the voices that comprise the river's mutterings not just through added frames of geographical, biological, and historical reference, but also through positing the possibility of myth upon the river. (159)

In the marginal note that is inserted between the lines Oswald notes that "Dart is old Devonian for oak" (*Dart* 11). Within this context, Oswald is "alerting the reader to the fact that Dartmoor was once an oak forest ecosystem before it was destroyed by early agriculture" (B. Smith 72). However, in comparison to Petrucci, Oswald does not explicitly foreground the ecological concerns of the Anthropocene in her work. Nevertheless, as a poet who creates a posthuman space of becoming, Oswald tries to redirect the reader's attention away from the anthropocentric vision to focus on the non-hierarchical set of intra-actions between the human and the nonhuman in her poetry. The destruction of the oak forest and its gradual transformation into the River Dart, therefore, indicate the ongoing capacity of the more-than-human world to adapt to the new conditions and sustain its vitality and agency. The Dart, though changed in form, continues to exist and to intra-act with the human. In this regard, Oswald does not represent the oak forest and the river as objects to be dominated by the human. Instead, as MacKenzie explains, "*Dart* situates people within a network of sensory stimulations, aesthetic enjoyments, prejudices, food chains, ecosystem dynamics and pollution; in its combination of poetic creativity and ecological thought it offers an example of how modern poetry might re-imagine and re-invigorate the idea of landscape" (191). As a posthuman poem that displays an eco-centric awareness concerning the move from the firm conceptualizations of the nonhuman sphere as a compliant object to an autonomous force, *Dart* "instructs us to engage with nature, respect its needs, and the needs of those who work around it" (Aber, par. 7).

However, before analysing the socio-ecological dimensions of the poem by reflecting on the river folk that work on the Dart, the mythological aspect of the river will be touched upon. Oswald's inclusion of the mythological and/or the imaginary figures in *Dart* functions as another strategy to draw "this poetic community's attention to a realm beyond the human, be it natural or supernatural" (Goursaud par. 4). It is first observed in the merging of the voices of the forester and the water nymph. Talking in prose, we first hear the forester who tells his intention as follows: "I am coop-felling in the valley, felling small sections to give the forest some structure. When the chainsaw cuts out the place starts up again. It's Spring, you can work in a wood and feel the earth turning" (Oswald, *Dart* 11). While the forester starts in an anthropocentric tone, saying he is trying to give some structure to the forest through coop-felling; in the next sentence he recognises the earth's awakening in spring. Hereby, the forester displays an ecological vision in that he does not embrace a domineering stance, but he considers his work as an authentic means of intra-acting with the woods. As Baker explains, the forester is "alert to the way the natural world responds to his work just as he responds to the natural world" (112). He pays attention not to disturb the bird population, saying: "When nesting starts I move out. Leaving the thicket places for the birds" (Oswald, *Dart* 11). Then, he goes on to find a fine maiden oak, and in order to help it grow stronger he knocks down the weak trees around it (Oswald, *Dart* 12). In this way, the forester contributes to the well-being of the natural world through sustaining a balance between his felling and the oak's growing: "And that tree'll stand getting slowly thicker and taller, taking care of its surroundings, full of birds and moss and cavities where bats'll roost and fly out when you work into dusk" (Oswald, *Dart* 12).

While the forester goes on with his work, his speech is interrupted by the mythological dimension of the River Dart – which is conveyed through the water nymph who speaks in verse:

> Listen, I can clap and slide
> my hollow hands along my side.
> imagine the bare feel of water,
> woodman, to the wrinkled timber.
>
> […]

> woodman working into twilight
> you should see me in the moonlight
> comb my cataract of hair
> at work all night on my desire (Oswald, *Dart* 11-12)

The dialogue between the water nymph and the forester seems to designate a unified vision where the structural dualisms are left out. As Baker suggests, by using her seductive charms, the nymph is trying to woo the forester, and she is "calling him to another plane of life" where they can get united (112). In this way, the poem achieves a flexible point where reality and fantasy are brought together. The water nymph's call for union, therefore, affirms a posthuman space of becoming, where the linear/the forester and the horizontal/the water nymph spheres are shown to exist on an equal basis in *Dart*.

The dynamic flow of the River Dart enables Oswald to move from one particular dimension, such as the mythic, to another without necessarily creating an impermeable gap between them. Therefore, the poem also includes a representation of the socio-ecological aspect of the Dart as part of its posthuman space. As the lyric I changes from the water nymph to a millworker working at Buckfast Woollen Mills, it is shown that *Dart*'s scopic vision covers an interlocking overflow of folkloric, mythological, social, economic and also of ecological threads as will be analysed below.

Through the voice of the millworker, for instance, the poem not only represents the working conditions of the labourers whose income depends on the river, but also displays the social and the ecological problems that are triggered by the human – the river intra-action. To illustrate, the millworker starts describing how he uses biodegradable detergent to wash the sheep wool that is "greasy with blue paint, shitty and sweaty with droppings" (Oswald, *Dart* 19). However, once these substances get into circulation of the river, they are likely to have adverse impact on the fish – which, in turn, will cause the fisherman to grumble. The millworker acknowledges this possible side-effect openly:

> it's all very well the fisherman complaining
> but I see us like cormorants, living off the river.
> we depend on it for its soft water
> because it runs over granite and it's relatively free of
>   calcium (Oswald, *Dart* 19)

In the lines above, the millworker compares himself to a cormorant that is dependent on the river and "naturalises his activity" by forming an analogy as such (Parham 122). Hence, rather than assuming an anthropocentric stance that exploits the natural world, he is conscious of the ecological dimensions of human-nonhuman interdependence. As a result, the worker cannot consider the river as a mere background because its agency provides him with a livelihood to sustain his life. The wool millworker uses the spinning frame to shape the wool into "a balanced twist, like the river" (Oswald, *Dart* 20). Bearing in mind that *Dart* problematises the hierarchical divisions, it is functional that the balanced twist shows the human-nonhuman relationship to be "as delicately intertwined as the wool that he [the millworker] produces" (Parham 122). Once the binding points of this delicate relationship is destroyed, therefore, it is inevitable that the river can also "cause damage, drownings, fear" (Munro par. 6) – as the particular incidents of Jan Coo and John Edmunds have demonstrated above.

Following the wool millworker, the poem draws our attention to the importance of water as a life-giving source through the voice of the water abstractor: "This is what keeps you and me alive, this is the real work of the river" (Oswald, *Dart* 25). However, right after, he addresses one of the drowned figures of the past, that is Jan Coo, and asks him: "Jan Coo! Jan Coo! / have you any idea what goes into water?" (Oswald, *Dart* 25). Juxtaposing the existence of water as the source of life and also of death, the water abstractor goes on to describe the chemicals that he adds in order to purify the water so that it will be available for consumption (Oswald, *Dart* 26). Accordingly, the water as a metabolised element indicates the trans-corporeal traffic between the human and the river, which, in the poem, is reflected through the overlapping of the voices of the water abstractor and of the River Dart – since it again becomes difficult to decide who is filling the lyric I at this point:

> Exhausted almost to a sitstill,
> letting the watergnats gather, for I am no longer   the river meets the
> able to walk except on slope,   Sea at the foot of
>   Totnes Weir
>
> I inch into the weir's workplace,
> pace volume light dayshift nightshift
> water being spooled over, now
> my head is about to slide – furl up my eyes,
> give in to the crash of

> surrendering riverflesh falling, I
>
> come to in the sea I dream
> at the foot of the weir, out here asleep (Oswald, *Dart* 26)

At the meeting point of the river and the sea, the realistic and somewhat systematic tone of the water abstractor is replaced by "a dreamer" as indicated in the margin (Oswald, *Dart* 27). The dreamer's speech is separated from the rest of the poem by parentheses, and, in this way, the poem also alerts the reader to the liminal state that a dreamer can experience, for s/he exists both within and outside the physical realm. Yeung interprets this dream state as "self-reflexive" (166) because the dreamer sees "the river's dream-self walk" (Oswald, *Dart* 28) – while the river voice itself recounts the dream of the dreamer. As the distinctions between the real/the imaginary, the dreamer/the river, the self/the other continue blurring into one another, the dreamer awakes only to be succeeded by the voice of the dairy worker:

> I wake wide in a swim of
> seagulls, scavengers, monomaniac, mad
> rubbish pickers, mating blatantly, screaming
>   dairy worker (river
> and slouch off scumming and flashing and hatching   water was originally
>   flies   used to cool the milk)
> to the milk factory, staring at routine things:
> […]
> I'm in milk, 600,000,000 gallons a week
>
> processing, separating, blending. (Oswald, *Dart* 29)

Soon enough the voice shifts to that of the sewage worker whose "plant deals with the input from the local sewers as well as the fat from the Unigate milk factory" (Middleton 165). In a posthuman space of becoming, it is not possible to stay clear from the negative impacts of the environmental waste; thus, the sewage worker is inevitably affected by the sewage produced by the factory where the dairy worker serves. When the amount of the sewage is too much to be handled, the sewage worker expresses his desperate condition as follows:

> When you think of all the milk we get from Unigate, fats and proteins and detergents
> foaming up and the rain and all the public sewers pumping in all day, it's like a

prisoner up to his neck in water in a cell with only a hand-pump to keep himself conscious, the whole place is always on the point of going under.

So we only treat the primary flow, we keep it moving up these screws, we get the solids settled out and then push the activated sludge back through. Not much I can do. (Oswald, *Dart* 30)

Here, by including the voices of the water abstractor, the dairy worker and the sewage worker in succession, the poem discloses the circulation of water as an agentic force as well as the various ways in which it is treated by different occupational groups. While the water abstractor extracts water from the River Dart to make it available for "various uses, from drinking to irrigation, treatment, and industrial applications" (Cooper, par. 1), the dairy worker, indirectly, calls attention to its excessive consumption by the dairy industries. Excluding the amount consumed by the cows, a dairy facility uses "up to 150 gallons of water per cow, per day. […] Using the maximum figure this would mean that a medium-sized factory farm would use 104,850 gallons of water everyday – just for flushing[57] purposes" (Good par. 7). Additionally, as Dr. David Campbell, who is an academician specialising in water conservation, also states, "UK uses around 40.9 billion litres of water each year to produce 14 billion litres of milk" (qtd. in FarmingUK, par. 5). Hence, the dairy worker's statement that they produce "600,000,000 gallons [of milk in] a week" (Oswald, *Dart* 29) is a much alarming amount. Eventually, the sewage worker's complaining of the disastrous consequences of the human industry discloses a very inconvenient truth – that the damage we assume to have directed on the natural world is in fact a boomerang that will return to us soon enough:

<div align="right">sewage worker</div>

It's a rush, a splosh of sewage, twenty thousand cubic metres being pumped in, stirred and settled out and wasted off, looped back, macerated, digested, clarified and *returned to the river*. I'm used to the idea. I fork the screenings out – a stink-mass of loopaper and whathaveyou, rags cottonbuds, you name it. I measure the intake through a flume and if there's too much, I waste it off down the stormflow, it's not my problem. (Oswald, *Dart* 30, emphasis added)

While the sewage worker tries to ease his conscience saying 'it is not his problem' that the waste has been dumped back to the river, the poem makes us realise how the flow of the polluted water comes full circle. To be more precise, it all starts with the water abstractor's attempts to extract water from the river so that the water becomes available

for consumption and/or industrial purposes. Then with the dairy worker, the poem draws attention to the excessive use of water; and finally, with the sewage worker *Dart* shows how people continue polluting the river. Within this perspective the circle completes itself only to be renewed by the water abstractor's further attempts to abstract water from the polluted river:

> You don't know what goes into water. Tiny particles of acids and salts. Cryptospiridion[58] smaller than a fleck of talcom powder which squashes and elongates and bursts in the warmth of the gut. Everything is measured twice and we have stand-bys and shut-offs. This is what keeps you and me alive, this is the real work of the river (Oswald, *Dart* 25)

The poem epitomises how the human-centred perspective has been problematised through a posthumanist outlook that brings the vocal existence of the Dart to the foreground and presents a posthuman space where voice of the lyric I has been shaped by the intra-active set of relations between humans and the river through Oswald's creation of an equilibrium of alternating voices, yet the "ecological intelligence" (Lessley par. 4) of the work should not be overlooked. As Reddick also emphasises, unlike the tendency of the reviewers to "downplay Oswald's awareness of the mess that people are making of their river" the poem "is brimming with muck, filth and pollution. Parasitic cryptosporidium lurks in the water; the salmon breathe nitrate and oil" ("A River Voyage" par. 3). Hence, "by masterfully interweaving a conglomerate of different voices and vernaculars, by paying attention to the big and the small," (Aber par. 7) Oswald's *Dart* underlines an eco-centric perspective that cannot simply objectify the river. Thus, the poem suggests that instead of taking nature for granted, humankind should become aware of the fact that they belong to the same posthuman space of becoming which delineates "a collective life experience that combines nature and human" (Atasoy 39). Relatedly, B. Smith also argues that "rather than making judgements at an individual level, Oswald is more interested in engaging with the bigger picture of how people and river interact at more-than-human, ecological scales" (72-73). Therefore, *Dart* continues alternating between "history, folktale, and myth" and also inviting "readers to reconsider not only the ways they see poetry in relationship to place, but—as Oswald's description of the river as 'this long winding line' suggests—also as a reflection of time" (Lessley par. 4).

Thus, having concentrated on the contemporary atmosphere for too long, the poem shifts to the mythological past of the Roman history, describing how Brutus, grandson of Aeneas, sailed with a group of exiled Trojans from Troy to reach their homeland. Having been directed by a goddess "to sail / till the sea meets the Dart" Brutus and his warriors set foot on Totnes (Oswald, *Dart* 31). Just as the way the readers have been guided by the sound-map of the river to reach where the Dart meets the sea, the Trojans have also been guided by the songline of the goddess to find the sea's meeting point with the river. In this way, similar to the water, the poem, too, completes a full circle and links the voices of the past and the present to one another. This fluctuation in time is significant in terms of indicating the comprehensive scope of the poshuman space as represented in the poem, for it also shows the way in which the voices of the past continue shaping those of the present – as they are carried through the movements of the water.

As Brutus and the exiled Trojans reach Totnes, they meet "a giant walking towards them, / a flat stone in each hand" (Oswald, *Dart* 33). However, the mythological giant is immediately replaced by a stonewaller whose "voice brings us to the present day and his narrative moves the poem down the estuary to where he collects his stones" (B. Smith 66). According to Goursaud, this sudden change signifies "a continuity between the practical attitudes of local river-workers to water and a mythical backdrop that might relate them to the rest of the land" (par. 19). The stones that the stonewaller collects also bear the marks of the past since they have been formed and carried through the continuous flow of the water. Regarding the qualities of the stones, the stonewaller states: "I can read them, volcanic, sedimentary, red sandstone, they all nest in the Dart, but it's the rock that settles in layers and then flakes and cracks that gives me my flat walling stone" (Oswald, *Dart* 33). Here, the stones are not presented as simple 'objects' to be shaped in the hands of the human. On the contrary, they are endowed with particular semiotic codes that can be deciphered by the stonewaller himself. Moreover, the stonewaller is also well aware of the creative energy inherent in the stream of the river, as it enables him to reach the estuary with his boat: "I love this concept of drift, meaning driven, deposited by a current air of water. Like how I came by the boat […]" (Oswald, *Dart* 33).

Stonewalling may seem to be a static profession that is mostly conducted on the land. Nonetheless, since the stonewaller uses his boat to find and collect the stones, the boat functions as his most important medium to be connected to the overflow of the river: "I dream my skin's flaking off and silting up the house; because the boat's my aerial, my instrument, connects me to the texture of things, as I keep saying, the grain, the drift of water which I couldn't otherwise get a hold on" (Oswald, *Dart* 34). This nomadic vision goes much in line with the posthumanist standpoint in that it challenges the anthropocentric perspective over the more-than-human world and embraces the dynamic overflow of an itinerant stance. Accordingly, the stonewaller develops a posthuman relationship with the river and acknowledges its vibrancy: "the water just glows. […] you can feel the whole earth tipping, the hills shifting up and down, shedding stones as if everything's a kind of water" (Oswald, *Dart* 34). This is the reason why, though the Dart ultimately meets the sea, the final three dots that end the poem shift our focus from an authorial design to the agentic properties of the river in the sense that the Dart is revealed to be capable of encompassing 'new' human and nonhuman voices as it will continue to circulate from its source to the sea.

In conclusion, *Dart* seems to present an eco-centric awareness that disrupts the false duality pertaining to the human and the more-than-human world by creating a posthuman space of becoming. Instead of justifying the presence of a human speaker that is placed at the centre, *Dart* epitomises an interfusion of the voices of the poet-narrator, the river, and the human characters who all take an equal part in the formation of the River Dart's mutterings. Endowing the Dart with a voice of its own, however, Oswald does not simply anthropomorphise the river by attributing it with human like qualities. Instead, acknowledging the vitality intrinsic to the matter, Oswald destabilises the anthropocentric perceptions regarding the objectified status of the material world, and she articulates a posthuman space where human and nonhuman entities are set in a non-hierarchical form of dialogue with one another. In this respect, *Dart* "suggests a kind of ontological humility" (Reimann 4) that contradicts with the centralised position of the lyric I/eye. Thus, using personification and/or anthropomorphism as a "heuristic strategy" (Iovino and Oppermann, "Introduction" 8) that indicates the points of convergence between humans and nonhumans, Oswald assumes a posthumanist outlook that goes beyond the

anthropocentric models of thought. As she further explains in her interview with Fiona Cox:

> But I wouldn't even use the word 'personification.' I think it's natural if you want to look at something in a way that takes on board what it is rather than just projecting what you think it is. It's not that you personify it, it's that you come *halfway to meet* it […] That means you're just finding a common place where you and the river can communicate. ("Alice Oswald" 6, emphasis added)

In other words, as Reimann expresses: "Bestowing a voice on the river therefore functions as a kind of translation of the natural into the human, allowing for mutual communication that would be impossible without this common substructure" (3). Accordingly, *Dart* illustrates the enmeshment of the human and the nonhuman entities within a network of intermingling set of voices that allows 'becoming other' rather than widening the break between human and nonhuman. In this perspective, the "polyphonic diversity" (MacKenzie 191) of *Dart* indicates a democratic form of confluence where the voices of the human and the nonhuman meet in a posthuman space of becoming where the dialectics of 'self vs. other' are unsettled.

2.3. REPRESENTATION OF THE POSTHUMAN SPACE IN *A SLEEPWALK ON THE SEVERN*

A Sleepwalk on the Severn portrays the repeated night excursions of a poet-narrator to the estuary of the River Severn, which is projected as a dynamic setting that continues changing according to the phases of the lunar cycle. As Oswald remarks in her introductory note to the book-length poem, other than placing the reflections of a human persona at the centre, *Sleepwalk* "aims to record what happens when the moon moves over us – its effect on water and its effect on voices" (1). Similar to *Dart* where Oswald creates a posthuman space through problematising the dominance of an authoritative gaze by calling attention to an amalgamation of human and nonhuman voices, *Sleepwalk* signifies the co-existence of human and nonhuman entities by tracing the common impact of the moon on the tidal range of the Severn Estuary as well as on the variable responses and reflections of human characters. Accordingly, in this section of the chapter I argue that, by calling attention to vitality of the moon, which – as a nonhuman agent – has the

capacity to influence the physical and the social dynamics, *Sleepwalk* emphasises the posthumanist perception that posits the human as a mere constituent/member of the natural world. As a posthuman poem, therefore, *Sleepwalk* does not postulate the human "as the root cause of an effect" (Bennett 31); rather, it underlines "a confederation of agencies" (Iovino and Oppermann, "Introduction" 4) that also encompasses nonhuman presences ranging from the moon to the river and the wind. Hence, it is not surprising that Oswald chooses the Severn Estuary as the main setting of *Sleepwalk* since it

> is among the world's natural wonders: wind, moon and water combine to create an unusually wide tidal range and the spectacular phenomenon of the Severn bore, a wave that surges upriver at high tide from Sharpness to Gloucester, a transit approximately 18 miles on the river. (Bristow, *The Anthropocene* 80)

Obviously, the Severn Estuary functions as a common ground where the impact of the gravitational pull of the moon can be observed through the formation of huge waves. Therefore, the setting of the poem invokes a sense of vitality and energy that keeps flowing all through *Sleepwalk*. Additionally, the liminal status of the setting should not be overlooked, either. Getting its name from the Latin word 'Sabrina'[59] ('Hafren' in Welch), which means 'boundary' in English, the River Severn forms a natural border between England and Wales (J. Smith, "River Severn" par. 3). Given the mythological background of the river's name, the Severn also earns an in-between status between reality and fantasy. Within this perspective, despite the tendency to construct dualistic boundaries that maintain dichotomous patterns of thinking, *Sleepwalk* projects borders as spaces of meeting/communication that underline a dialogic site of subject-object intra-actions.

Being the longest river of the UK, the Severn has various tributaries including "the Teme, Stour, Tern and Avon and it is connected by canal with the rivers Thames, Mersey and Trent" ("Severn" par. 3). Although there is not a direct geographical link between the Severn and the Dart, *Sleepwalk* can be seen as a tributary of *Dart* (Crown par. 2) in the sense that the poem continues emphasising the dissolution of the boundaries between the human and the nonhuman and sets them in relation to one another on a flowing basis that goes beyond the tenets of human instrumentalism. In other words, *Sleepwalk* problematises the dualistic pattern of subject/object division by demonstrating a dialogic

framework that negates the presence of the human as an interpreter that objectifies the natural world. On the contrary, by exposing human characters to the influence of the fluctuating rays of the moonlight and demonstrating how the changing energy fields of the material world has the ability to intra-act with us, *Sleepwalk* underlines the fact that "[w]e are not outside observers of the world. Neither are we simply located at particular places *in* the world; rather, we are part *of* the world in its ongoing intra-activity" (Barad, *Meeting* 184, emphasis in original). Within this perspective, both *Dart* and *Sleepwalk* delineate a posthuman space of becoming that heightens our awareness regarding the agential faculties of the nonhuman matter. However, *Sleepwalk* expands the limits of our anthropocentric vision by not merely focusing on how "[o]ur lives are lived on the planet earth" (Winterson par. 13), but also urging us to recognize "the significance of current planetary changes" (Keller 33) by reminding us that our lives are also "lived with the moon and the stars" (Winterson par. 13). Therefore, I argue that reading *Dart* and *Sleepwalk* together is important in terms of understanding the more-than-human world at "much larger […] scales than before" (Keller 33) so that humankind can acknowledge its humble presence as a 'small' member of this posthuman space of becoming.

Sleepwalk not only encompasses a variety of changing perspectives but it also alternates between verse and prose. As Motion states, *Dart* and *Sleepwalk* share a formal diversity in that "both include prose as well as free verse and bursts of more tightly-organized lyricism, and both rely to a certain extent on the use of quotation from real people who use the river for various purposes in real time" (49). Nevertheless, *Sleepwalk*'s narrative structure is far more experimental than *Dart* in the sense that it is designed like a play. Still, Oswald notes that *Sleepwalk* "is not a play. This is a poem in several registers, set at night on the Severn Estuary. Its subject is moonrise, which happens five times in five different forms: new moon, half moon, full moon, no moon and moon reborn" (*Sleepwalk* 1). Therefore, the poem is divided into five sections/scenes – each describing the impact of the phases of the moonrise on human and nonhuman entities.

This structural division of *Sleepwalk* enables the reader to follow the stages of developing posthuman awareness regarding the physical and the emotional vitality of the natural world. In each section of the poem, there appears a poet figure – who calls herself "*[a]*

kind of dream-secretary" (Oswald, *Sleepwalk* 19, emphasis in original) later – visiting the same location at different nights. She is employed as a mediator that observes other human and nonhuman figures she comes across, and she takes notes in her "*nightbook*" (Oswald, *Sleepwalk* 5, emphasis in original) only to be interrupted by their voices and reactions. It is hence the notes taken by the poet-narrator that form the main body of the poem itself. However, as stated, *Sleepwalk* is not merely concerned with displaying the reflections of the human inhabitants of the Severn Estuary. Rather, similar to *Dart,* where the river is not a passive recipient of human activity but has the power to affect the perspectives and the lives of various characters, *Sleepwalk*, too, calls attention to the agential faculties of the moon and makes the moon's impact on the tidal movements of the River Severn and on the human speakers central. In this context, it is important to identify the moon, as Oswald's "'new river.' She loves it because, like a river, it is always changing" (Kellaway, "Into the woods" par. 5). Thereby, just like *Dart*, the poem elucidates a posthuman space of becoming that cannot be environed by strict boundaries. Nonetheless, as suggested above, unlike *Dart*'s blurring of the borders between the interlocking voices of humans and that of the River Dart, *Sleepwalk* is more interested in displaying how the elasticity of a posthuman space – as demonstrated through the changing phases of the lunar cycle – has the power to affect its human and nonhuman population equally.

Hence, I also argue that the experimental poetic structure of *Sleepwalk* works in line with the posthumanist reading of the poem, for it allows the reader to read/hear the human and nonhuman voices on a democratic background that does not prioritise one voice over the other. Each section of the poem follows a three-column structure: the middle column displays the poem proper which alternates between the italicised[60] nightbook entries of the poet figure and the direct speeches of other human characters as well as those of the moon and the wind. The right column informs reader about the time by marking the lunar phase in which the poem proper continues unfolding/flowing. Revealing the identities of the ensuing human and nonhuman voices, the left column, on the other hand, functions like the marginal notes that have been inserted in *Dart*. Therefore, bringing all these three columns together, the poem operates as a textual space that works in line with a re-orientation towards a posthuman space of intra-active relations where everything is in a

constant dialogue with one another. In the first section/scene of *Sleepwalk* it is possible to see how all this seems to present a co-existence with a common ground – while also marking the differences between the perceptions of the ensuing speakers:

New Moon

Two sleepwalkers struggling along, one painfully thin with eyes closed (that's the Moon), the other writing, (that's me). I'm always out there, noting things down in my nightbook being interrupted…
[…]

birdwatcher   Impossible! Not here! Not now! Please not! Rare visitor. Rare? Not breeding surely! Not now! Please!

Notice a fisherman walking home, with the Wind in rustling clothes following.

fisherman   It's late. I don't like it walking on the mud at night.

A little horse trots through, knowing its way.

Did you see that?

Shhh! (Oswald, *Sleepwalk* 5)

It should be noted that the poet-narrator talks about two sleepwalkers struggling along the Severn Estuary: "*one painfully thin with eyes closed (that's the Moon), the other writing, (that's me)*" (Oswald, *Sleepwalk* 5). Instead of referring to herself directly, the poet figure chooses the third-person pronoun, but right after she states: "*I'm always out here, noting things down in my nightbook being interrupted . . .*" (Oswald, *Sleepwalk* 5). It can be argued that vacillating between the third and the first-person pronouns, the poet figure does not position herself as an overbearing gaze over the natural world. Instead, she indicates a posthuman space where the nonhuman world also takes note of her existence in this perpetual flux where nothing stays same from one moment to the next. This is the reason why, she struggles to find her way through this 'moving' atmosphere which is constantly shaped by the oscillating beams of the moonlight.

Moreover, as the title of the poem *A Sleepwalk on the Severn* also indicates, walking is presented as one of the means of getting physically involved with the material world. However, this time, walking cannot be considered as an ordinary outdoor activity; rather,

as the verb 'to sleepwalk' indicates, it refers to the state of walking while asleep. Hence, it can be argued that placing the poet figure and the moon in a dreamy state, the poem does not restrict the points of intra-action to the physical sphere only. Broadening the scope of the posthuman space, which already contains the trans-corporeal and the polyphonic gateways, to also include the mental intra-activity between human and nonhuman entities, it can be argued that sleepwalking also functions as a boundary crossing metaphor that blurs the observant vision of the human gaze. Furthermore, recalling Oswald's attempt to link the voices of the human characters into "a sound-map of the river, a songline from the source to the sea" (Oswald, *Dart* n.p.) in *Dart*, it can be maintained that the poet figure's liminal status as a sleepwalker/dream secretary also links her to the aboriginal songlines that function as oral memory banks illuminating the routes followed by the indigenous ancestors during the Daydreaming. Accordingly, similar to the way "[t]he reference to 'aboriginal' signifies the river's primitive, organic, and fundamental relationship with a human community" in *Dart* (Tongsukkaeng 290), the poet figure's and the moon's companionship as two sleepwalkers invokes a posthumanist standpoint that underlines the human-nonhuman interdependence that aptly re-connects the human to the natural world.

In this respect, *Sleepwalk* emphasises the inapplicability of subject/object duality and moves beyond the regulations of human supremacy by including the audial presence of the nonhuman entities within a dialogic pattern that encompasses listening/reflection as well as speaking/response. Hence, the poet figure's asking the fisherman to keep silent is an important detail that urges the reader to 'quiet the eye' and be more receptive. As the overbearing presence of human gaze starts tuning down, the voice of the wind can be heard:

[fisherman]	Did you see that?
	I'm so sorry. I'm going to ask you to be quiet. I'm recording all this in my nightbook.
wind (*very* *emotional* *changeable*)	[…] One minute a child next minute A thousand years old The wizened prisoner of waters

> *Enter the satisfied sound of the river licking and sucking.* […]
> *There's the Moon poor thing looking for eels among the reeds.*
> *She's asleep apparently. She's been walking since Dusk. She looks*
> *exhausted. Don't touch her. Keep moving the stones out of her*
> *way.* (Oswald, *Sleepwalk* 6).

The feelings of the wind cannot go unnoticed since it is described to be "*very emotional changeable*" in the left column (Oswald, *Sleepwalk* 6). It should be noted that in all sections of the poem, the reader will not only continue hearing the voice of the wind but also witness how the emotional status of the wind[61] keeps changing from one phase of the moon to another. Accordingly, as Bristow also argues "*Sleepwalk* invites us to consider that nature is capable of manifesting itself as an emotional activity. This realisation of our environment is figured in the geographical account of *Sleepwalk* as something much more than seeing human experience embedded in some significant background" (*The Anthropocene* 84-85). Thereby, as a posthuman poem, *Sleepwalk* alerts us to the agency of multiple nonhuman presences which not only intra-act with the human but also with one another all through the poem.

Following the emotional reflections of the wind, the nightbook entries of the poet figure present an overall picture of the scene: the sound of the river is heard "*licking and sucking*" – a reference to the tidal waves that return/lick and recede/suck – while the fisherman's foot is stuck in the mud, and the birdwatcher is engrossed in watching (Oswald, *Sleepwalk* 6). The picture is completed with the inclusion of the last remaining actant – that is the moon, who describes the scene from her own perspective:

moon   […] This is wetlands. Full of wildfowl. Keep looking. This is
                        sediment. This is ordinary surface stuff with a shoe sticking out of
                        the mud with a leg in it. Or is that a heron standing out of bounds
                        on the reservoir Wall. *which'll soon be twenty foot underwater*
                        (Oswald, *Sleepwalk* 6-7, emphasis added)

The moon directs the focus of the reader to the Severn Estuary which is obviously a dynamic location that is marked by the changing levels of water. Owing to the panoramic perspective of the moon, the reader might assume to have a more detailed vision that covers the whole area. However, not being able to make a distinction between the fisherman whose foot is stuck in the mud and the heron standing on the reservoir wall,

the moon does not seem to be interested in the minute details that distinguish one figure from the other. Rather, she concludes with an ominous warning that everything will "soon be twenty foot underwater" (Oswald, *Sleepwalk* 7). Hence, it can be asserted that though *Sleepwalk* does not make a direct reference to the environmental crises of the Anthropocene, the rising levels of water may also be interpreted to warn against the impending consequences of global warming. Still, when the whole of the poem is taken into consideration, it is more probable that here the moon is alluding to the uncontrollable energy pertinent to the water – which becomes unleashed through floods. Relatedly, looking at the history of the Severn it is seen that people living nearby the river have suffered from various floods.[62] Among those, the flood of 1947 is still remembered today since "the Severn reached its highest recorded [water] levels […]. Shops and businesses were affected and people had to walk over wooden boards to cross the flooded area" ("Severn" par. 16). The most recent incident took place in February 2020 when the Severn "peaked at 5.48m in Bewdley […] just short of the record 5.56m reached in 2000" ("River Severn flooding" n.p.). Evidently, the warning that has been uttered by the moon is still valid today.

However, the poem does not continue with the catastrophic imagery that signals how everything will be flooded. On the contrary it describes the rise of the new moon which is conveyed through the notes of the poet figure: "*She begins to rise slowly through the trees and then out, shedding a weak, low battery light, so that everything (even the stones) looks up:* (Oswald, *Sleepwalk* 7). Here, alternating between the perceptions of the poet figure and the moon, *Sleepwalk* enables the reader to have a complete grasp on both sides of the coin; that is, the moon facing the earth, and humans looking at the moon. In this way, the poem moves beyond the hierarchical denomination of the human gaze over the more-than-human world and suggests a posthumanist vision where the subject/object binary is deconstructed. We can observe the dissolution of boundaries clearly in the song of the chorus that reports the rise of the moon:

> chorus
> […]
> She begins to climb
> In her slimy death sheath
> Very strong-willed and tugging

Tied to the earth

[…]

I keep seeing the moon
Mother of all grasses (Oswald, *Sleepwalk* 9)

The chorus, by definition, refers to a group of people that comment on the main action in classical drama. In *Sleepwalk*, however, the chorus does not necessarily denote the existence of human figures. It merely serves as a mechanism that enables introspection regarding the ruminations of both sleepwalkers – the moon and the poet figure alike. Furthermore, as "[a] symbol of a community of beings, the chorus provides space for the 'I' to locate itself among others" (Bristow, *The Anthropocene* 90). Nevertheless, just as the way the lyric I/eye in *Dart* dissolves within an overflow of polyphonic meshwork, the 'I' in *Sleepwalk* does not indicate a fixed identity, either. On the contrary, it is bound to accommodate versatile human and nonhuman figures while the "darklight" of the moon continues "filling the paths of [their] gazes" (Oswald, *Sleepwalk* 8-9). Accordingly, the poet figure's sleepwalking does not finalise here because she visits the Severn Estuary over and over again. In this way, as the poem unfolds, it becomes possible to discern the continuous impact of the changing phases of the moonrise over human and nonhuman beings. Following the three-column structure, the next section (Half Moon) of *Sleepwalk* starts off with the recordings of the poet figure:

Half Moon

Three nights later, the night of the Half Moon. Muddy path by Severn. […] *Two sleepwalkers struggling along, one with eyes closed (that's the Moon not yet risen), the other writing. Keep going. It's an estuary you see. And when the wind blows up you can be walking like this leaning forwards, and you'll still be going backwards…* (Oswald, *Sleepwalk* 11)

As can be seen in the quotation above, the moon and the poet figure continue to be described in similar terms. They are both struggling while trying to walk along the Severn River. Since the path is muddy, the implication is that the river – due to its tidal flow – is likely to have caused the land to become swampy. Moreover, the wind's agential capacity is also underlined because when it blows strong, walking turns out to become a difficult activity. Obviously, human and nonhuman forces are shown to be intra-acting in an

unfixed environment where the physical consequences of this co-existence are also reflected on their emotional status – as it is also exemplified through the wind's voice in the previous section. As opposed to the 'New Moon' section, however, here the scene does not continue with the fisherman's reflections, but with the description of the sudden and the loud entrance of an articled clerk carrying a gun in his hand. The noisy presence of the articled clerk disturbs the poet figure who asks him to "*Go away* […] / *Please. This is a nature reserve*" (Oswald, *Sleepwalk* 11). Through the introduction of a new character whose presence poses a threat to the ecological system since he hunts a rare species of birds, the poem – though less directly than *Dart* – also includes criticism regarding the anthropocentric treatment of nature. The poet figure describes the scene as follows:

> *Goose. Lesser white-fronted. We get about one a year round here and you shot it.*

[articled clerk]   Duck actually.

> *Goose infact. Silly fool.* […] *Reaches around, walking up to his waist and swims, struggles, makes a grab for the bird and turns toward the shore. Blue lips trembling. Shouts 'Duck actually!' and disappears in the waves. It's dawnless. Freezing cold hands, I can hardly write, no light. It's gloom and offish water. Notice the wind, very troubled, wading through reeds.* (Oswald, *Sleepwalk* 12)

Unlike the representation of nature in Bruegel's *Landscape with the Fall of Icarus* (c. 1555) where Icarus' fall does not seem to incur any reaction, for "everything turns away / Quite leisurely from the disaster" (Auden, "Musée des Beaux Arts" 79), in this particular scene described above, the water is gloomy and the wind is anxious. Thus, forming an affective link between the fall of the bird and the response of the natural world, *Sleepwalk* seems to delineate a posthuman space of becoming where everything is intra-related. As the blue lips of the articled clerk continue trembling, and the freezing cold hands of the poet figure try to take notes, the restless voice of the wind intervenes:

> wind   Whisper whisper . . . this is
> (*restless*   Harry Kingscott from Gloucester
> *neurotic*)
>
> They found my cycle at the Wainlodes
> And my clothes not far off
> Please tell my mother they were folded

Enter a shriek. And another shriek, shaped like a curlew.[63]
(Oswald, *Sleepwalk* 12)

This time, however, the wind starts talking through the voice of a boy, who is likely to have drowned in the river. The ensuing sound of the shrieks reveals how the pain caused by the deaths of the drowned boy and the hunted bird feels similar. In this way, the poem also shows how the lives and deaths, strengths and vulnerabilities of humans and nonhumans are intertwined in a posthuman space. Accordingly, as noted by the moon, the tangled existence of the fossils and the river creatures also displays how everything is bound to merge with one another:

moon   […] I can't remember what I'm looking for but I've found shoes and skirts and ribbons here. And old crab lines and fossils being wintered away and of course hundreds of half fish half human molluscs and marine worms doubled up in their undoing being slowly slipped out of the mud and made fat again. (Oswald, *Sleepwalk* 13)

The muddy ground of the Severn Estuary evokes a common sphere which soaks up everything that crosses its way. As the beams of the moon enlighten the scene, the mesh of human and nonhuman materiality becomes visible through the allusion to "half fish half human molluscs" (Oswald, *Sleepwalk* 13), which in the broader perspective get linked to the "*Moon in curled-up form half-lit*" (Oswald, *Sleepwalk* 13). Belonging to same posthuman space of becoming, all human and nonhuman agents including the moon, the estuary and the sea creatures come together to manifest how the phases of the lunar cycle continue intra-acting with the material world below. As a result, the reflections of the human are also bound to be influenced by this dynamic account. In other words, since the lunar cycle is still in progress, the moon appears in half-lit form, and this directly influences the perception of the lyric I – as it is conveyed through the song of the chorus that closes the 'Half Moon' section:

chorus
[…]
This night *I'm half resigned* the grasses only *half asleep*
This night is *half moon* night when the moon has
No feeling in her right side but she makes light of it
The cars dip their beams the wet fields have headlights

[…]

> This night with *eyes half closed*
> It's not so much what you see as what you are seeped in
> And *half next day the half sensation*
> Of many moon-shocked nerves *half lit* (Oswald, *Sleepwalk* 14, emphasis added)

The song of the chorus, therefore, demonstrates how the liminal state of a heavenly body such as the half-lit moon can directly influence the terrestrial entities. Since the moon is semi-illuminated, her impact on the earth is also defined in similar terms. As the speaker indicates in the lines above, while s/he is half resigned, the grasses are half asleep simply because it is half-moon night, and the moon is half awake (Oswald, *Sleepwalk* 14). In this way, *Sleepwalk* helps the reader see and interpret the more-than-human world in active terms since it is shown to function as an agential stimulus that modifies human-nonhuman relations. Then, one can rightfully wonder what will happen when the moon appears in her complete form, that is, in her 'Full Moon' self?

As already stated, *Sleepwalk* does not centralise the human as an ultimate force that shapes the natural world. On the contrary, through tracing the impact of the moon, the poem shows that nonhuman agents also have the ability to do things to us. Accordingly, the question posed above is crucial in terms of manifesting the posthumanist vision that rejects the well-worn binaries of the Western thought that ignore the vitality of the more-than-human world. Visiting the Severn Estuary a few nights later, the poet figure, obviously, tries to find an answer to the very same question: "*There's the Wind on your ears like a hood. Two sleepwalkers, struggling along, one huge with eyes closed [the Full Moon], the other staring (that's me) being followed by a cloud. Keep going . . .*" (Oswald, *Sleepwalk* 15).

Compared to previous parts, 'Full Moon' can be considered as the most elusive section of *Sleepwalk* because the influence of the moon over human and nonhuman inhabitants of the estuary is at its highest level. Speaking through the psychological impact[64] of the moon on human figures, *Sleepwalk* also calls attention to the presence of a dialogic site where the wind, the river and the moon come together to delineate a community that repudiates the subject/object duality. Within this context, the 'Full Moon' section shows that the material self cannot be disentangled from the cognitive networks that are also co-

constituted through the intra-action between the earth and the moon. The birdwatcher, for instance, does not seem to have complete control over his actions, for he cannot use his telescope properly: "[birdwatcher] The little stint! Or is it? / *Turns telescope round. Looks through right end*" (Oswald, *Sleepwalk* 15). The fisherman and the articled clerk, however, leave their place to the gruesome and the sudden entrance of a sailor who first grabs the throat of the birdwatcher and then, to the poet figure's surprise, starts crying and saying that his heart is not working properly (Oswald, *Sleepwalk* 16). At this point, the wind, "*sighing in the background*," intervenes (Oswald, *Sleepwalk* 16):

> wind   Poor reeds
> *(very*   Standing in a draft in their night clothes
> *downhearted*
> *desperate)*   *Sailor looks at the Moon. Looks at his hands. On his arm a heart with initials A.P. R.P. And underneath, an anchor.*
>
>   Miserable weather
>   Wrinkled and tarnished water
>   Which smells of its fields (Oswald, *Sleepwalk* 16)

The wind's unhappy state is echoed in the way it describes the weather and the water as being miserable and dull, respectively. While the wind's comments are far from describing a peaceful night, the scene is also loaded with the implications of a fresh beginning because the moon is about to rise in her complete self. Thus, for the first time in the poem, the poet figure introduces the moon's entrance directly:

> *Enter the Moon.*
>
> moon   Looking round I remember who I am. This is water to one side of me. Eels etc. Little fires along the banks of the river and a few tins of cider in grasses. There's the owl. There's that horrible sucking sound. The glug glug of the tide. And it looks like a fairground the way the mud spreads out all lit up with a fisherman asleep walking over it. Checking his traps perhaps. Has he seen me. Halfway across. Tired out by dreams. He lets his feet sink in. […] (Oswald, *Sleepwalk* 17)

The moon seems to have a broader perception of the Severn Estuary in her 'Full Moon' phase; hence, she sounds firm in her assertion: "Looking round I remember who I am" (Oswald, *Sleepwalk* 17). Nevertheless, rather than claiming her 'superior' gaze over the earth, the moon starts describing the human and the nonhuman population of the river –

such as the eels, the owl, the butterfly and the fisherman. The moon's influence can also be seen in the tidal movements of the River Severn which not only make "that horrible sucking sound" but also cause the earth to become muddy again (Oswald, *Sleepwalk* 17). Only after reflecting on her impact on the earth can the moon 'remember' who she is: that she is a cosmological component of this posthuman space where each entity is in an intra-active dialogue with one another. In this context, it can be said that the moon owes her "moonhood" (Oswald, *Sleepwalk* 18) to the existence of this intra-active meshwork where the human/nonhuman, the subject/object binaries are replaced by an eco-centric framework where every human and nonhuman being take note of one another. Accordingly, every entity is shown to have an equal agential value in the formation of this co-existent dynamics. The 'Full Moon' section of the poem, therefore, is important in that it not only illustrates the changing emotional reactions of human and nonhuman characters in the poem, but it also manifests the development of the moon's subjectivity/moonhood by bringing her to a full realisation of her own inter-subjective existence in a posthuman space.

Since posthuman space of becoming is marked by continuity and transformation, not only the rise but also the gradual setting of the moon influences the human and nonhuman inhabitants of the estuary. Therefore, the 'No Moon' section demonstrates how the moon continues leaving her impact on the River Severn and its momentary human and nonhuman population, through the dimming quality of her light. In the absence of the moonlight, the poem suggests a more provisional setting where even "ghosts and suicides rise up to argue with the living" (Crown par. 3). Hence, compared to previous sections, the 'No Moon' part of the poem is primarily marked by the instances of death and destruction that are triggered by the uncontrollable rise in the water level in the River Severn. In this way the poem insinuates the destructive agency of the water – about which the moon has warned in the 'New Moon' section. The poet figure describes this new phase as follows:

No Moon

End of the month. Newnham-on-Severn. Very dark very wet. […]

Two sleepwalkers struggling along, one invisible with eyes closed, the other writing. That's me. I'm always out here. Moving over the night-map with the Moon my close friend following. A kind of

dream-secretary, always recording myself being interrupted, trying to wake myself by writing. I'm doing well. Keep going. It's raining. There's the birdwatcher already hidden in position, swaying with the reeds with infra-red telescope. And here comes a vicar on horseback having trouble with his nose. Keeps covering the left nostril and breathing in deeply and out. He can't keep his horse still. (Oswald, *Sleepwalk* 19)

Similar to the previous nightbook entries, after giving information about the time and the setting, the poet figure goes on to introduce the characters. This time, however, she calls herself a "*dream-secretary*" who tries to wake herself up by writing (Oswald, *Sleepwalk* 19). As stated, the references to sleepwalking and dreaming blur the vision of the human gaze and help introducing an alternative perspective that can take note of the vitality of the more-than-human world. While two sleepwalkers, that is the moon and the dream secretary, continue struggling, the birdwatcher is already on the spot with his telescope. Instead of the fisherman and the sailor, however, in 'No Moon' section the vicar and the parish clerk take part in the dialogue, and they start complaining about the negative impacts of the agential force of the wind and of the rising water:

vicar	On account of the wind. Forgive me, Father. The rain I'm ok with it's the ruddy wind that bothers me. It really stifles me. That's why I would normally go by boat, Heavenly Father. […]
parish clerk	Almost all the cider both new and old's been damaged, the hoarded apples carried away, the clean wheat in the bags wetted, the cheese in the lofts and the butter in the dairy hurted and the corn and hayricks up to the eaves in water, the barns and threshing floors cleanly washed . . . (Oswald, *Sleepwalk* 20)

The poem does not explicitly tell what has happened, but the implication is that there occurred a storm which caused the water level in the River Severn to rise dramatically. Combined with the impact of the moon on the tidal flows, the land is likely to have been flooded and, hence, the crops of the year are damaged. Right after the cursing of the vicar, the dream secretary includes a long list of the figures influenced by the flood (Oswald *Sleepwalk* 20-21). Towards the end of the list she also points to the emotional reaction of a group of dogs that continue howling in distress and a horse that tries to find its way home without its rider – who, most probably have drowned in the Severn: "*Enter a small*

tide creeping over the sand quickly and several dogs howling and in great distress. […]
And lastly, the Reverend John Lloyd Crawley's horse with no rider, making its own way
home" (Oswald, *Sleepwalk* 20-21). Accordingly, the poem shows that the natural world
cannot remain indifferent to what has happened – as can be seen in the reactions of the
tide, the dogs and the horse. Additionally, the intervening voice of the wind also proves
to be instructive at this point. Making a comparison between the past and the present, the
wind starts referring to the concept of death by indirectly gesturing towards the
waning/setting of the moon as follows:

> wind   In the beginning people didn't die
> *(inconsolable)*   They waxed and waned and
>   Here lie the very thin remains
>   Of a man
>
>   Sigh
>
>   Enter almost nothing
>   No more than the rim of an ear
>   Or the white of an eye (Oswald, *Sleepwalk* 21)

Similar to *Dart* where death does not necessarily point to an end but is seen as a phase
within an overflow of intra-active relations, in *Sleepwalk* the wind also draws attention to
"the natural cycle of the universe" (Reimann 13). Talking of the past as a time when
"people didn't die," but "waxed and waned" (Oswald, *Sleepwalk* 21), the wind
emphasises the process of becoming where nothing disappears completely. According to
this vision, the moon's and people's waxing/birth and waning/death suggests an
interconnection that is also displayed in the ebb and flow of the Severn Estuary. Within
this context, though the anonymous man dies, his "very thin remains" indicate the way in
which he continues to function as an agential force (Oswald, *Sleepwalk* 21). In other
words, nothing disappears totally but transforms into a new vitality that adapts to the
changing conditions in a posthuman space. As indicated above, for Oswald life and death
cannot be strictly severed from each other; on the contrary, they are both vital ingredients
of a non-linear continuum. Similarly, although the moon is about to disappear since she
has completed the lunar cycle, she is to be re-born once the cycle starts anew. The final
section ('Moon Reborn') of *Sleepwalk*, therefore, starts off echoing the beginning of the
poem – so much so that the reader feels as if s/he is re-reading the 'New Moon' section:

> *Flooded fields by the Severn. Waveridge Sand only walked on by the Wind. Almost dark, waiting for the Moon to be reborn. Car noise continuous. Two sleepwalkers struggling along, one small, barely there, with eyes closed, the other writing . . .*
> (Oswald, *Sleepwalk* 25)

The entries of the poet-narrator are again interrupted by the ensuing dialogues of the birdwatcher and the fisherman. With the introduction of the wind's voice, however, it is realised that *Sleepwalk* flows towards a totally new phase that continues to be shaped within the flux of life. In this new phase, however, the wind is no longer restless or negative:

wind	Another thousand years
(very excitable	The moon, mother of many rivers
with flute)	Has grown young again
	It could happen to anyone
	Whose being both dims and widens
	As if carried by the wind (Oswald, *Sleepwalk* 26)

The wind's comparison of the moon to the "mother of many rivers" (Oswald, *Sleepwalk* 26) delineates the fact that there is a constant correlation between the moon and the tidal currents of the River Severn, as well as with the larger liquid bodies of the earth such as the sea and the ocean. As the moon grows younger again, in other words, as the lunar journey starts anew, its gravitational pull starts to be visually observed on the liquid bodies. As a result, the poet figure notes how the water levels begin to rise: "*And this is me, the Dream Secretary, recording all this at moonrise, 31st of the 8th and hereafter. Notice the water rising. Notice everyone all up and down the valley looking up and singing:* (Oswald, *Sleepwalk* 26). As stated above, non-linearity and transformation constitute the backbone of *Sleepwalk*, and the poem shows that every human and nonhuman being is susceptible to change since they are part of a posthuman space of becoming. Within this context, following the re-birth of the new moon, the cycle starts anew. However, instead of following the three-column structure of the previous sections, *Sleepwalk* moves towards a full representation of the characters who all take part in the final choral song that concludes the poem.

Nevertheless, it should not be generalized that *Sleepwalk* ends up prioritising the reflections of humans over the more-than-human world. Instead, tracing the intra-action between human and nonhuman inhabitants of the Severn Estuary – with a particular focus on the changing phases of the lunar cycle – it has been attempted to demonstrate a posthuman space of becoming where each and every constituent of this confederation of agencies affect and be affected by one another. Hence, it is functional that the choral song operates as a communal ground that combines the voices/reflections of human speakers who also acknowledge the presence of the moon above, for they are described to "*looking up* [at the moon] *and singing*" (Oswald, *Sleepwalk* 26). Thereby, as the human speakers intra-act with the Severn Estuary, the wind and the moon, all these nonhuman agents start speaking through their physical and emotional influence on humans. In this way, similar to *Dart* where the lyric I/eye connotes the interlocking voices of the human inhabitants and the River Dart, *Sleepwalk* also invites the readers to take part in this choral confluence where the impact of the gravitational pull of the moon enacts a more interconnected vision that also underlines the intra-planetary dimensions of human-nonhuman intra-action.

As noted, the poet figure functions as an intermediary figure since she records what happens when the moon waxes and wanes, and how all this impacts human and nonhuman agencies coming together at the Severn Estuary. However, it should be remembered that the poet figure is also a part of the posthuman space of becoming that the poem describes. Therefore, it is inevitable that she is also influenced by the moon, and in return the poet figure, too, contributes to the choral song that finalises the poem. In this polyphonic song, however, it is the birdwatcher whose voice is first heard. In this way, the poem forms a parallel structure with the previous sections since – apart from the poet-narrator – the only human character whose voice keeps appearing all through *Sleepwalk* is the birdwatcher. Still, instead of centralising his voice and referring to himself directly in the lyric I, the birdwatcher uses the third-person pronoun to better illustrate how the poem envisions a non-anthropocentric outlook that holds up a mirror to the enmeshment of human and nonhuman forces:

birdwatcher

The Birdwatcher moves quietly,
Seeing his way in the dark.

[…]

He sees everything:
The grebe's nest under the weed,
The waders resting on fold-up stools along the tideline.

[…]

Even the shiver of an owl's wing
Moving through the stars
he perfectly hears … (Oswald, *Sleepwalk* 27-28)

The birdwatcher no longer needs a telescope to see through the night. Obviously, he does not sound as short-sighted as before. He has changed for the better since he seems to have reached an ecological awareness. Thus, "[h]e sees everything" – without necessarily claiming superiority over the more-than-human world (Oswald, *Sleepwalk* 27). Moreover, having become a part of this posthuman space of becoming, the birdwatcher is also able to hear "[e]ven the shiver of an owl's wing / Moving through the stars" (Oswald, *Sleepwalk* 27). The vertical and the horizontal lines overlap as the birdwatcher continues splashing "away through the heavenly reed fields" (Oswald, *Sleepwalk* 27) while his moving along the Severn wakes up "the doves in the woods" and they "[c]lap awake when he walks" (Oswald, *Sleepwalk* 28). Put differently, the birdwatcher's sphere of influence covers not only the terrestrial but also the cosmic realm: "Behind his back there are twenty tiny goddesses / Washing their dresses in the waves" (Oswald, *Sleepwalk* 28). In this way, presenting an interchange of the real and the mythical, *Sleepwalk* also points to the expansive range of the posthuman space of becoming that continues blurring the distinctions between binaries.

The second human character whose voice is heard most frequently after the birdwatcher is the fisherman. He appears both in the 'New Moon' and the 'Moon Reborn' sections of *Sleepwalk*. Therefore, the analysis of his voice as heard in the choral song proves functional regarding the impact of the moon from a comprehensive perspective. In other words, pairing the presence of the birdwatcher with the fisherman, Oswald seems to achieve a balanced point in the poem: while the birdwatcher's stare is mostly directed at the sky, the fisherman's focus of attention is centred on the ground, that is the underwater. Hence, their coming together in the choral song insinuates an amalgamation of two main

elements, which are the air and the water. When the whole of the poem is taken into consideration, it is realised that the birdwatcher and the fisherman also prove functional in observing the impact of the moon on the wind/air and the river/water in more detail. Similar to the birdwatcher who refers to himself in the third-person pronoun, here the fisherman does not use the lyric I either. Instead he starts off echoing the reflections of the wind and forms an analogy between the waxing and waning of the moon and the ebb and flow of the river. Eventually, the fisherman links all these fluctuations in time and space to the lifetime of an old man, who represents humankind in general:

> fisherman
>
> Another thousand years,
> The moon, mother of many rivers,
> Has grown young again.
> It could happen to anyone
> Whose being both dims and widens
> As if carried by the wind.
>
> A man for example,
> Sitting very still in his bone-web,
> Dipped in old age up to the eyes,
> When the tide recedes, his arms
> Draggle to his sides
> As hollow as reeds. (Oswald, *Sleepwalk* 29)

Despite the attempts of humankind to locate itself as the ultimate controller of the more-than-human world, here the poem once again delineates the idea that we inhabit and belong to the same posthuman space – the flows of which impact every human and nonhuman being equally. Here the old man's being "[d]ipped in old age up to the eyes" (Oswald, *Sleepwalk* 29) not only underlines the flow of time that metaphorically soaks humankind with old age, but it also shows "how enmeshed we are with our material surroundings and how our bodies are coemerging with nature rather than standing aside and observing it" (Sullivan 85). The old man's body is also compared to a "bone-web" (Oswald, *Sleepwalk* 29) which according to Bristow is "a compound that bridges rigidity and flexibility, fibre and fabric" ("Bioregional" 8). Accordingly, the old man becomes an ultimate example of the fluidity the poem is trying to establish throughout. Furthering the analogy, the fisherman notes that when the tidal waves recede, the old man's arms lose their strength and "[d]raggle to his sides / As hollow as reeds" (Oswald, *Sleepwalk* 29).

Like the reeds that start fading in the absence of water, the life in him diminishes only to resurface with the return of the tide:

> Another thousand years,
> Every twelve hours,
> Every vein in the valley re-fills its syringe
> At the thought of the moon:
> The marsh grass prickles its hackles
> And the trees speak out with shadows in their voices.
>
> And a man for example,
> Sitting very still in his bone-web,
> Dipped in old age up to the eyes,
> When the tide returns he runs
> Thigh-deep through the Severn,
> Chasing the lightning of a salmon. (Oswald, *Sleepwalk* 29)

Described as the "mother of many rivers" (Oswald, *Sleepwalk* 29), the moon controls the ebb and flow of the water: when the moon wanes the tide recedes, yet when it waxes the tide returns. This cyclical pattern is also repeated in the succession of day and night, they follow each other in a continuous flow that repeats itself "[e]very twelve hours" (Oswald, *Sleepwalk* 29). Though dipped in old age, with the return of the tide the old man becomes re-animated with energy and starts "[c]hasing the lightning of a salmon" (Oswald, *Sleepwalk* 29). In order to better understand the direction that the fisherman's voice leads to, it is important to note that the lightning of salmon is a particular hook fly that is used to catch salmon in the rivers. Hence, blurring the distinction between the old man and the salmon at the end, the poem underscores a re-orientation towards a posthumanist inter-subjectivity that recalls Goethe's description of human beings "as 'people of the air-ocean' […] a neologism he coins for human beings in parallel description to the idea of fish being people of the (watery) ocean" (Sullivan 84-85). As Sullivan further explains:

> Our bodies are, in other words, fully immersed in air and shaped by this seemingly invisible form of matter all around us, through which we move. Hence, we may think that we dictate the flows with our agency, but we are all too often wrong in that regard. Instead, […] natural flows move through our bodies and with or against them, and they also influence our thinking in ways that we simply do not see. (85)

Within this spectrum, it is not possible to talk about the existence of strict borderlines in a posthuman space of becoming. Therefore, *Sleepwalk* presents the moon as an agential

force that not only intra-acts with the tides of the Severn Estuary but also continues to affect its human inhabitants. Furthermore, the cyclical form of the poem also points to a repetitive pattern that plays with the reader's sense of chronological time and shows the way in which the poem emphasises the physical and the emotional transformation of humans in an "interstitial site of interaction, interconnection and exchange" (Friedman 3) that transcends the subject/object dualism.

In *Sleepwalk*, the dream secretary/the poet figure has been struggling along the Severn Estuary and has been recording everything in her nightbook; hence, everything is filtered through her consciousness. However, as stated above, it would be wrong to conclude that *Sleepwalk* is the ultimate result of the poet figure's ruminations only. On the contrary, she is an intermediary figure whose perceptions have also been influenced by the fluctuating rays of the moonlight – as well as the voices of the other human and the more-than-human characters including the wind and the moon. In this context, the role of the poet figure is like that of a secretary who takes notes and records important details without necessarily implementing his/her views. Accordingly, the dream secretary's full appearance as the ultimate voice that finalises both the choral song and the poem in the final page should not be interpreted as validating a human centred perspective in *Sleepwalk*. Instead, it illustrates her co-emergent existence within a posthuman space of becoming:

dream secretary

Last thing each night, go out for the moon.
Pull on old coat, shut garden gate.
Roll up old sleeves. Swing arms. Poor soul.
Think moonset. Moonrise. All running to schedule.
World black and white. Walk up the lane.
Last thing each night. Look up for the moon.
No sign but rain. Almost back home.
One more last quick. Glance up for the moon. (Oswald, *Sleepwalk* 40)

Here, similar to the birdwatcher and the fisherman, the dream secretary, too, steps outside of herself. That is to say, she does not use the lyric I while describing her actions. In the previous sections, the poet figure has always been present on the scene; walking along the Severn and writing in her nightbook. This time, however, the reader sees the dream

secretary pulling an old coat and shutting the garden gate (Oswald, *Sleepwalk* 40) – most probably she is leaving her residence for the night excursion. On the road, she contemplates about the circular flow of time – that everything waxes and wanes but never disappears completely. Having returned to where she has started, that is, back her home, the dream secretary keeps on looking up for the moon. However, her "last quick. Glance up for the moon" (Oswald, *Sleepwalk* 40) turns out to become a glimpse into an anonymous woman's study room. Hence, the moonlight leaves its place to the glow of a little desk lamp:

> Eyes stripped to the darkness. Can't help but notice
> Little desklamp glow. As from upstairs window.
> Shoulder of a woman. There, that's her.
> Very old poor soul, maybe all but gone.
> Last thing each night, flick on flick off.
> Flick on flick off. Little hand torch halo.
> There that's her. Last thing each night,
> Letting only the light of a white sleeve show. (Oswald, *Sleepwalk* 40)

The dream secretary notices the shoulder of a woman which is made apparent thanks to the glow of the desk lamp, yet the lines do not give the reader any clues regarding the identity of the woman figure. Nevertheless, the implication is that the woman has been writing on her desk since she turns the lamp on and off. Juxtaposing the creative force of the unnamed writer with the transformative and inspirational force of the moon, therefore, *Sleepwalk* displays how the moon and the poet-narrator continue to be equated at the end of the poem. Accordingly, emphasising an intra-activity of human and nonhuman agencies, the final lines of *Sleepwalk* present a posthumanist understanding of the existence showcased in the natural mutability of the moon:

> *Sometimes* the moon is more an upstairs window,
> Curtains not quite drawn but lit within and lived in.
> And *sometimes* the moon is less and
> *Sometimes* she moves behind and *sometimes* she's gone.
> *Sometimes* it's the moon. *Sometimes* it's the rain.
> (Oswald, *Sleepwalk* 40, emphasis added)

The final lines of the poem call attention to the repetitive use of the word 'sometimes' to both evoke the shape-shifting quality of the moon and to delineate a collective existence combining the human and the natural world – through blurring the borders among the

moon, the poet figure, and the rain as indicated above. Obviously, the dream secretary will continue glancing up for the moon; while the moon, in return, will continue affecting the 'unfixed' atmosphere where the human and the more-than-human world intra-act via different channels such as the trans-corporeal, trans-vocal and trans-mental gateways. Within this spectrum, therefore, in *Sleepwalk* the human is presented to be nothing other than a fragment of a whole existence that is subject to the impact of the tidal movements of the River Severn caused by the phases of the moon.

In conclusion, read through the lenses of posthumanism, *Dart* and *Sleepwalk* present an entwined existence of human and nonhuman life forms and suggest that the human can no longer be seen as an authoritative figure in relation to natural world in a posthuman space of becoming. Presenting the river Dart as a site of transformation where the voices of human and nonhuman inhabitants of the river form a common stratum, Oswald's posthuman poetics designates a polyphonic confluence that is built on a non-hierarchical basis in *Dart*. Similarly, tracing the impact of the moon over the human and the nonhuman characters as they move along the River Severn in *Sleepwalk*, Oswald enlarges the scope of the posthuman space in that she calls the reader to attend to "wider ecocosmic dimension of our being" (Rigby, "Earth, Word, Text" 431) by means of demonstrating the intra-planetary moon-earth-river dynamics of the intra-affective continuum as displayed in the textual space of the poem.

CONCLUSION

> We still talk in terms of "conquest"—whether it be of the insect world or of the mysterious world of space. We still have not become mature enough to see ourselves as a very tiny part of a vast and incredible universe, a universe that is distinguished above all else by a mysterious and wonderful unity that we flout at our peril.
>
> — Rachel Carson, *Of Man and the Stream of Time*

> Without us, Earth will abide and endure; without her, however, we could not even be.
>
> — Alan Weisman, *The World Without Us*

With a particular focus that questions the validity of the human/nonhuman division that has long been preserved in Western intellectual history, this study has attempted to explore the echoes of the posthumanist trajectory in contemporary British poetry. Building on a non-instrumentalist logic that problematises the objectification of the natural world, it has been argued that Mario Petrucci's *Bosco* (1999), *Heavy Water: A Poem for Chernobyl* (2004), *Half Life: Poems for Chernobyl* (2004), and Alice Oswald's *Dart* (2002) and *A Sleepwalk on the Severn* (2009) employ a non-anthropocentric perspective that calls attention to the permeability of hierarchical boundaries between human and nonhuman realms. Applying the term, 'the posthuman space,' which, as a critical apparatus, emphasises a collective mode of existence that challenges the structural dualities established between human/nonhuman, self/other, subject/object, it has been proposed that Petrucci and Oswald's above-mentioned works can be evaluated as examples of posthuman poetry that move us from "paradigms of conquest to paradigms of connectivity" (Fischer et al. 623).

It has been suggested that contemporary poetic discourse needs a more comprehensive terminology that is not tainted by anthropocentric innuendos. While alternative expressions such as environmental poetry and/or ecopoetry have been introduced to

designate a less anthropocentric stance, neither of them has been able to envision a truly posthumanist attitude that can do justice to the entanglement of the human and the nonhuman from an ecological dimension in the Anthropocene. In this regard, the term 'posthuman poetry' has been used to designate the selected works of Mario Petrucci and Alice Oswald. In this trajectory, this study has shown that Petrucci and Oswald overcome the supposed gap between the human and the nonhuman by creating a posthuman space where the agential contribution of nonhuman matter is brought to the fore. However, there are certain differences regarding the methods Petrucci's and Oswald's works follow to represent the posthuman space of becoming. Petrucci, for instance, is interested in displaying the material embeddedness of human and nonhuman entities by tracing the physical and the social outcomes of the trans-corporeal traffic between the human body and the radioactive particles in *Heavy Water* and *Half Life*. Relatedly, pointing to the contribution of trees as active agents that keep the level of the greenhouse gases in check, Petrucci calls attention to the devastating consequences of deforestation which threaten all life forms in *Bosco*. Oswald, on the other hand, does not necessarily underscore the corporeal porosity between human and nonhuman agents. Instead, she creates a polyphonic meshwork where the voice of the lyric I loses its anthropocentric undertone in a posthuman space of multiple voices – which also includes that of the nonhuman matter in *Dart* and *Sleepwalk*. So conceived, this study has shown that Petrucci and Oswald's posthuman poetry poses a challenge to the anthropocentric treatment of the natural world. Foregrounding the intra-action and the ontological inseparability of co-existing human and nonhuman agencies, their poetry demonstrates that "[e]xistence is not an individual affair. Individuals do not pre-exist their interactions; rather, individuals emerge through and as part of their *entangled intra-relating*" (Barad, *Meeting* ix, emphasis added). Petrucci and Oswald's posthuman poetry, therefore, explains "why all agencies matter, and why we should be more attentive to their agentic role in today's world" (Oppermann, "From Posthumanism" 35).

Contemporary poetry, thus, serves as a suitable groundwork for exploring the current ecological crises and the anthropogenic environmental changes observed in today's world, namely in the Anthropocene. In this framework, as a conceptual tool, the Anthropocene engenders a critical perspective that reveals hazardous outcomes of

humankind's failure to see itself apart from the more-than-human world. Accordingly, moving towards the third decade of the 21st century today, the analysis of Petrucci and Oswald's posthuman poetry published between 1999-2009 proves functional in terms of showcasing contemporary poets' attempts to challenge the monopoly of the human over the nonhuman sphere at the turn of the new millennium.

As stated, both poets disavow the prevalent interpretation of the more-than-human world as a passive and mechanistic entity. This can be seen in Petrucci's *Bosco* which foregrounds the intra-active and the responsive capacities of trees and shows how climate change and global warming underline the reactive competence of the natural world. To this end, as argued above, the tripartite structure of *Bosco* enables the reader to see the gradual steps of deforestation. The first section of the collection has been analysed to identify the problem in the perpetuation of human/nonhuman binary, and it reads like a warning which notes that if nature/culture schism continues to be sharpened via the cutting edges of the axeman's axe, then it is inevitable that a global ecological disaster is awaiting all of us. In the second section of *Bosco* it is revealed that humankind has long been ignoring the admonishment that has been insinuated in the first section. Thus, in the single poem that also gives the second section its name, "The True Service," the trunk of a newly cut tree is introduced as an emblem of the destruction of the ecological balance. The tree is described to be hosting a myriad of nonhuman entities including worms, ants, birds and, in this way, the poem shows how the tree, as an active component of the posthuman space, has long been contributing to the well-being of the ecological system. Speaking through what the cutting of its trunk reveals to the reader, the tree also functions as a silent yet powerful harbinger heralding the devastation of human and nonhuman bodies in the future – which becomes most obvious in the last section of the collection.

In this context, in the last section, titled "Woodsmoke," the posthuman concerns of Petrucci are presented through the damage wrought upon the natural world. The forest's life has become so endangered that the logwood tree, threatened by human activities, starts issuing a direct warning to its fellow humans in the poem "Logwood." Similarly, the poem "Dodona" depicts the last surviving oak tree that is kept in a life support unit, for it is too weak to survive on its own. With its death, however, humans become totally

vulnerable to the searing flames of the chimaera – symbolising global warming. In relation to this, the poem "Deserted," describes a futuristic setting where deforestation and the concretisation of the green areas have turned the Earth into a barren space where all entities encounter the threat of mass extinction. Eventually, "Exodus," the last poem that closes *Bosco*, concludes with the panoramic view of a dying planet, that is 'our' home, as seen from space. Overall, underlining the "mutual constitution of entangled agencies" (Barad, *Meeting* 33), *Bosco* explores the negative consequences of humankind's anthropocentric inclinations to become the ultimate controller in a posthuman space. Foregrounding the nonhuman matter's agential capacity to react to the human intervention, therefore, it has been shown that *Bosco* embodies a posthumanist critique that problematises the justifications of human dominion over the more-than-human world.

Using the toxic and biologic legacy of the Chernobyl nuclear explosion and underlining the agential role of the disaster in *Heavy Water* and *Half Life*, Petrucci creates a posthuman space of becoming formed by radioactive particles' movement in and across (non)human bodies. In doing so, these collections suggest that human/nonhuman separation is not viable. Since the human body is biologically intermeshed in a posthuman space of "deviant agents" (Alaimo, *Bodily* 113), which indicate the xenobiotic chemicals that are likely to have unwanted biologic effects on human metabolism, *Heavy Water* and *Half Life* spotlight the agentic properties of the radioisotopes and their toxic consequences on human life. Hence, with a particular focus regarding the physical and the social impact of the Chernobyl accident on the liquidators, their families, as well as the Chernobyl victims and the Chernobyl survivors ranging from young to old, both collections explore how chemical agents function as detrimental 'players' within this human-nonhuman enmeshment.

As for Oswald's poetry, her *Dart* and *Sleepwalk* have been interpreted as embodying the voices of human and nonhuman beings so that the domineering human I/eye gets replaced by polyvocal connections that also take the agential presence of the natural world into account. In this sense, Oswald's posthuman poetry has been shown to envision a posthuman space where humans and nonhumans continue intra-acting within a

polyphonic confluence. The posthuman space created in *Dart* is built upon Oswald's developing a narrative that follows the streaming course of the river Dart in Devon – from its source to its end, thereby allowing the first-person pronoun of the lyric I to constantly change from one voice to another all through the poem. Blurring the lines between the voices of humans and that of the River Dart, Oswald's long narrative poem invites the reader to take part in this polyphonic meshwork. In this way, *Dart* was shown to underline the agentic and communicative capabilities of the river, and to create a posthuman space that illustrates how the intersubjective encounters between human and the nonhuman figures have the capacity to influence both parts. However, it should be noted that writing and speaking directly from the perspective of a river does not have to entail an anthropomorphic perspective that perpetuates the human/nonhuman division. Rather, as maintained by Timothy Clark and Jane Bennett respectively, anthropomorphism does in fact have a "provocative value as a way of doing justice to the agency of the non-human" (192); hence, it functions as a critical tool that displays the similarities shared by human and nonhuman realms, alike (99). Accordingly, drawing attention to the act of listening as an ecological medium that contradicts with the overbearing gaze and/or voice of the lyric I/eye, and demonstrating a posthuman space of becoming where the intersection of human and nonhuman voices are put forward within a non-hierarchical basis, this study has inferred that Oswald's *Dart* incurs a critical awareness regarding the co-inhabitation and co-existence of human and nonhuman beings in a posthuman space.

Along similar lines, *Sleepwalk*, the second book-length river poem of Oswald, centres around displaying the dialogues between human and nonhuman beings as they move along the Severn Estuary – following the course of the changing phases of the moonrise. Unlike *Dart* which is structured upon a verse-prose interfusion, *Sleepwalk* was shown to rule out the divisions between the poetic and the dramatic works since it is written and read like a play. *Sleepwalk* urges the reader to reconsider the intra-planetary and eco-cosmic aspects of a posthuman space of becoming, for it is not possible to decide where the borders of human and nonhuman bodies are to be drawn. So conceived, this study has demonstrated that *Sleepwalk* envisions the human and the more-than-human world as vital entities that constantly affect and be affected by one another in a posthuman space of becoming.

Taking us away from "the battle of representation" (Knickerbocker 3) caused by the linguistic turn that reduces everything to the position of a textual construct, the agential realist account of matter along with the new materialist premises of posthumanism redirect our attention towards the agentic capacities of the nonhuman matter – which have long been ascribed to the human realm. As a result, humans can no longer situate themselves as the ultimate controllers of the natural world; rather, they belong to a posthuman space "in which human actors are still there but now inextricably entangled with the nonhuman, no longer at the center of the action" (Pickering 26). Nonetheless, it has also been noted that the posthuman space does not necessarily envision a holistic perception where human and nonhuman entities live in total harmony; rather, it has "both constructive and destructive implications" (Ergin 36). Petrucci's posthuman poetry exhibits how the ego-centric impulses of humankind pave the way for various ecological crises that endanger all life forms since everything is intra-related. In other words, when a single link within this posthuman chain is loosed, all the other links retaliate, which, in turn, creates an awareness regarding the more-than-human world's agentic ability to counter-act. In this regard, it has been concluded that *Bosco*, *Heavy Water* and *Half Life* demonstrate an enhanced understanding of human-nonhuman linearity that also alerts the reader to the destructive ecological consequences of this enmeshment.

So as not to limit the scope of the posthuman space to ecological concerns and corporeal intra-actions only, Oswald's *Dart* and *Sleepwalk* have been included with the intention to illustrate the dialogic interfaces between humans and nonhumans. Applying the figurative tools of personification and/or anthropomorphism, Oswald's posthuman poetry does not simply project the human traits onto the nonhuman sphere or visualise a linguistically component nonhuman matter. Considering the fact that discursive practices shape the way we think, with its ability to bend the regulations of language, poetic language enables the ego-centric human 'subject' to consider the more-than-human world "as more than inert, unresponsive matter" (Knickerbocker 6). Thus, revisiting the human/nonhuman dualism through a polyphonic meshwork where the lyric I/eye can no longer hold a centralised stance, *Dart* and *Sleepwalk* have been interpreted to envisage a posthuman space where the human and the nonhuman agents are shown to take note of the audial presence of one another.

In the face of ecological devastation that has started to threaten all life forms, it is realised that today's poets cannot intend to "conjure a naïve view of life as an Edenic kingdom" (Crist 143) where harmony and peace prevail among human and nonhuman entities. Therefore, contemporary poets need to find new ways of examining the human relationship with the natural world. In this regard, proposing posthuman poetry as a more encompassing term, this study has shown that posthuman poetics not only focuses on contemporary ecological crises but also asks us to think about the world outside of the human by recognising the agential capacities of nonhuman entities.

Given the boundary-bending impetus of the coronavirus COVID-19 pandemic that has afflicted the world globally, economically, socially, psychologically, politically and has caused almost half a million people to lose their lives (as of June 2020), it is obvious that we need to look beyond conventional methods of interpreting the relationship between human and nonhuman realms. As Kate Rigby points out in *Dancing with Disaster* (2015), the destruction of the eucalyptus forests in Australia causes fruit bats to lose their nests, so they find the solution in flying to urban and agricultural areas. It means that the viruses that are in a symbiotic relationship with tropic species find the opportunity to spread to new hosts that have no hereditary immunity, and this can prove fatal (81). As Rigby further explains, "[e]pidemiological mapping of the epicentres of new deadly viral infections indicate that they have all emerged from rainforest biomes. Ebola, Marburg, and HIV, for instance all hail from the American forest or its hinterland" (81). While medical and environmental scientists can work hard to develop vaccines, and health systems try to do their best to cure patients, these steps can fail to offer permanent solutions. If humankind continues destroying rain forests and finds relief in the stereotypical images of the natural world that widen the gap between human and nonhuman, culture and nature; it is quite likely that we might have to deal with more environmental crises in the future.

Therefore, this study concludes that it is crucial to acknowledge the material, creative and communicative agency of the more-than-human world. As an art, poetry has the ability to appeal both to our senses and reason; hence, it serves as a useful medium to bridge the duality between the human 'self' and the nonhuman 'other.' Subverting human-centredness and emphasising a posthuman space of becoming which helps us "understand

our embeddedness in and dependency on nature" (Plumwood "Nature" 116), Petrucci and Oswald's posthuman poetry goes beyond established constructions of the natural world by denouncing the anthropocentric view of the nonhuman matter as a passive tool. Exhibiting the agential realist account of trees and radioactive particles in Petrucci's *Bosco*, *Heavy Water* and *Half Life* and emphasising the dialogic interchanges between the river, the moon, the wind, and human characters in Oswald's *Dart* and *Sleepwalk*, this thesis aims to provide additional critical perspectives on posthuman co-existence, so that we can better acknowledge the deconstruction of the hierarchical divide between the human and the nonhuman through the establishment of a "posthuman environmental ethics" (Alaimo, *Bodily Natures* 24). Only through cultivating an ethical regard for all human and nonhuman agencies of the universe, can we leave an inhabitable world for the upcoming generations.

NOTES

[1] American philosopher and ecologist David Abram (b. 1957) coins and introduces the phrase 'more-than-human world' in the subtitle of his work *The Spell of the Sensuous: Perception and Language in a More-Than-Human World* (1997). Drawing upon various sources ranging from Balinese shamanism to Apache story tellers, Abram attempts to illustrate the connection between human cognition and natural environment. Undermining the dichotomies pertaining to culture and nature, body and mind, human and nonhuman Abram generates a truly eco-centric position that acknowledges an equality of value and respect that is shared by all human and nonhuman life forms. Accordingly, for the aim of this study, the phrase 'more-than-human world' is to be used interchangeably with such expressions as the nonhuman, the nonhuman matter, nonhuman entities/beings, nonhuman life forms/bodies, and in this way, it is intended to underline the co-existence and the co-entanglement of human and nonhuman naturecultures without necessarily generating an anthropocentric position.

[2] Focusing on the human body as a corporeal material that is neither essentialist nor strictly bounded, the material feminist theorist Stacy Alaimo in her book *Bodily Natures: Science, Environment and the Material Self* (2010) explores "the interconnections, interchanges, and transits between human bodies and nonhuman natures" (2) and uses the term 'trans-corporeality' to indicate the flow of exchanges between human corporeality and the more-than-human world. In this way, trans-corporeality "opens up a mobile space that acknowledges the often unpredictable and unwanted actions of human bodies, nonhuman creatures, ecological systems, chemical agents, and other actors" (Alaimo 2). So conceived, urging humans to question the anthropocentric premises that regulate human and nonhuman forces as separate entities, trans-corporeality underlines the co-constitution of the human body with the material world.

[3] Although it is possible that natural weather patterns can also trigger wildfires, carrying out an analysis regarding the correlation between climate change and the risk of wildfires happening all over the world, UK researchers have studied 57 research papers published since 2013. As Matt McGrath states, the studies have demonstrated a close affinity between "climate change and the increased frequency or severity of fire weather. This is defined as those periods of time which have a higher risk of fire due to a combination of high temperatures, low humidity, low rainfall and high winds" (par. 6).

[4] In *Risk Society: Towards a New Modernity* (1992), *Beck* defines risk as a "*systematic way of dealing with hazards and insecurities induced and introduced by modernization itself*" (21, emphasis in original). Beck, however, also underlines the fact that risks cannot be interpreted to have appeared in the industrial period only. As he describes, "[a]nyone who set out to discover new countries and continents – like Columbus – certainly accepted 'risks.'" (21). Still, compared to the past when these risks were mainly "*personal*" and "had a note of bravery and adventure," today they are "global dangers like those that arise for all of humanity from nuclear fission or the storage of radioactive waste"; thereby they signify "the threat of self-destruction of all life on Earth" (21, emphasis in original).

[5] As the American biologist Barry Commoner suggests in *The Closing Circle* (1971), "everything is connected to everything else" (39), so each and every being is dependent on one another in a non-hierarchical network of relations. However, starting with the Industrial Revolution, the human turns into a geological force whose actions influence the ecological dynamics of the Earth negatively. Thus, Commoner's vision of ecological interdependence does not necessarily signify a holistic perception that disregards the catastrophic outcomes of this interconnectedness.

Accordingly, contemporary literature can no longer embrace a naïve definition of nature as an idealised place that is unaffected by this human-nonhuman intra-action.

[6] Rosi Braidotti's *The Posthuman* (2013) presents a concise summary of what posthumanism is, and it underlines the posthumanist perception's challenging of the false dichotomies pertaining to mind/body, self/other, subject/object, and above all, human/nonhuman divisions. Building her argument upon the deconstruction of the Enlightenment ideals of 'Man' as 'the measure of all things,' Braidotti criticises Humanism as a Eurocentric tool that is used to justify Europe's imperialist foreign policy. Hence, Braidotti states that "Humanism's restricted notion of what counts as the human is one of the keys to understand how we got a *post-human turn* at all" (16, emphasis added). Within this context, the posthuman turn signifies the break from the anthropocentric regulations of humanist ideologies that celebrate the privileging of the human before all the nonhuman 'others.' In the wider perspective, however, the posthuman turn also indicates the move towards a non-hierarchical framework that acknowledges the agential capacities of the nonhuman matter. In relation to this, in her article "Recent Approaches in the Posthuman Turn" (2016) Dönmez points out that "[w]ith the emergence of new materialisms as an essential companion to its development, the posthuman turn has come to denote a horizontal, rather than a hierarchical, alignment of the human and the nonhuman" (106).

[7] As Raymond Williams argues, 'nature' is perhaps the "most complex word in the [English] language" (qtd. in T. Clark 6). Nature is an ambiguous concept that is built on different implications that are closely linked "with its various implicit projections of what human identity is in relation to the non-human, with ideas of the wild, [with the definition] of nature as refuge or nature as resource, nature as the space of the outcast, of sin and perversity, nature as a space of metamorphosis and redemption" (T. Clark 6). Hence, rather than ascertaining a fixed and a limiting definition, it is seen that the term nature has "several, incompatible meanings whose interrelation can be said already to enact some distinctive environmental quandaries" (T. Clark 6). For Timothy Clark's detailed elaboration on these various definitions – that is the 'natures' of nature – see *The Cambridge Introduction to Literature and the Environment*, 6-7.

[8] Commenting upon his own work, Neil Astley affirms that "*Earth Shattering* shows the progression from descriptive or egocentric nature poetry of earlier centuries to today's ecologically aware poetry, including the work of writers whose poetry challenged widely held beliefs or assumptions regarding humanity's relationship with the natural world" (19). Exploring the connections between humanity and nature, *Earth Shattering* devotes a thematic subtitle to each section, listed as 'Killing the Wildfire' (on the extinction of species); 'Unbalance of Nature' (on the effects of pollution, deforestation and urbanisation); 'Loss and Persistence' (on the rapidly vanishing natural world); 'The Great Web' (on humanity's interdependence and oneness with nature); 'Exploitation' (on postcolonial and ecofeminist perspectives), 'Force of Nature' (on the impacts of human-made environmental disasters such as global warming and climate change) and the last section, 'Natural Disasters,' which "ends with planetary catastrophe and Eco-Armageddon" (Astley 216).

[9] *The Guardian*'s '10:10 Climate Change' campaign, which was launched on 1 September 2009, required its participants to reduce their carbon emissions by 10% by the end of 2010. To support the campaign, Andrew Motion composed five sonnets about the climate change, which were brought together under the title "The Sorcerer's Mirror" (2009). In 2015, *The Guardian* launched another campaign which was known as 'Keep it in the Ground.' This time it was intended to prevent the further investments in companies that were dedicated to finding and burning more fossil fuels such as oil, gas and coal. Carol Ann Duffy's poem "Parliament," which is about pollution and climate change, accompanied the launch of the campaign in 2015. Moreover, in the same year Duffy curated a series of poems composed by various poets commissioned for 'Keep it in the Ground' project. The poets included Imtiaz Dharker (b. 1954), Maura Dooley (b. 1957),

Simon Armitage (b. 1963), Michael Symmons Roberts (b. 1963), Alice Oswald (b. 1966), Jo Bell (b. 1967), Matthew Hollis (b. 1971), Sean Borodale (b. 1973), and Rachael Boast (b. 1975) from the UK; Michael Longley (b. 1939) from Northern Ireland; Paul Muldoon (b. 1951), Peter Fallon (b. 1951), Paula Meehan (b. 1955), and Colette Bryce (b. 1970) from Ireland; Lachlan McKinnon (b. 1956), Jackie Kay (b. 1961) and Don Paterson (b. 1963) from Scotland; Gillian Clarke (b. 1937) and Robert Minhinnick (b. 1952) from Wales; James Franco (b. 1978) from the USA; and David Sergeant.

[10] The winner of the first prize will be announced in autumn 2020. The works will be judged by Simon Armitage, Robert Macfarlane and Moniza Alvi.

[11] *Earth Songs* (2002) brings together a wide selection of contemporary ecopoetry (mostly by British and Irish poets) including Gary Snyder (b. 1930), Wendell Berry (b. 1934), Mark Strand (1934-2014), and Dana Gioia (b. 1950) from the USA; Sujata Bhatt (b. 1956) from India; Seamus Heaney (1939-2013) and Eavan Boland (b. 1944) from Ireland; John Burnside (b. 1955) from Scotland; Gillian Clarke (b. 1937) from Wales; Kathleen Raine (1908-2003), John Heath-Stubbs (1918-2006), Peter Redgrove (1932-2003), Charles Thomlinson (1927-2015), Thom Gunn (b. 1929), Jeremy Hooker (b. 1941), Kevin Crossley-Holland (b. 1941), Pauline Stainer (b. 1941), Carol Rumens (b. 1944), Penelope Shuttle (b. 1947), Grevel Lindop (b. 1948), George Szirtes (b. 1948), and Jem Poster (b. 1949) from the UK; and Michael Longley (b. 1939) from Northern Ireland. Peter Abbs in his "Introduction" to *Earth Songs* states that having startled to find so many eco-poems, he has difficulty in organizing the anthology, so he decides to categorize the poems under eight themes which are titled as follows: Naming Gaia, Our Sick Planet, The Living World, Landscapes and Inscapes, The Home of Experience, The Ecology of Love, Weaving the Symbolic Web, and The Search for Enlightenment (15-16).

[12] The material that is included in *Entanglements: New Ecopoetry* (2012) belongs to a wide range of contemporary contributors "that stretch from the UK to poets living in France, the Netherlands, Canada, the USA, Japan and Australia" (Jarvis 194). Without attempting to provide a historical selection that also includes the past, "*Entanglements* is concerned to present only *new* poetry" (Jarvis 194, emphasis in original), because as the editors, Davis Knowles and Sharon Blackie explain, "their intention has been to take a 'snapshot of ecopoetic output' at what they call 'this specific time of our transition' – by which they mean 'the transition from a world in which global ecological damage is just one issue among many, to a world in which our species' relationship with the global ecosystem is *the* issue'" (qtd. in Jarvis 194, emphasis in original).

[13] David Borthwick, in his "Introduction" to *Entanglements: New Ecopoetry* (2012), acknowledges that ecopoetry

> is at present a predominantly western movement, emanating from writers who take their responsibility seriously to stand against the myths of domination and disposability that characterise, but also emanate from, the places they stand in. There is no room for piety, however, instead a profound need for honesty: the poets here, primarily from the UK, the USA, Canada and Australia, find their voices more readily heard owing to the circumstances which progress has permitted. (xx)

[14] As Johns-Putra explains, Bryson's *Ecopoetry: A Critical Introduction* (2002) is "a pioneering collection of critical essays on ecopoetry" that identifies "US poets Wendell Berry, Linda Hogan, W. S. Merwin, Mary Oliver, and Gary Snyder as prominent ecopoets" (271).

[15] In *Green History* (1994), Derek Wall presents a comprehensive research that traces the human – nature relationship within a historical background and states that it is the "attitudes of early societies, especially those of classical Greece, [that] strongly influence contemporary approaches

to environment" (32). Still, it would be wrong to assume that the Greek attitudes to the environment were steady and ordered; on the contrary, they were marked by complexities. For instance, while "Aristotle (384-322 B.C.) and the early Stoics claimed that nature was a resource placed before humanity for its exclusive use" (Wall 32) – thus turning it into an object to be usurped – "[s]ome Greeks continued to worship Pan and Gaia [yet] others agreed that nature, even if it was to be used primarily for human gain, should at least be conserved and maintained with wisdom" (Wall 33).

[16] Referring to Gregory Bateson's *Steps to an Ecology of Mind* (1972), Laurence Coupe explains that the error is twofold: "First, there is the failure to see that 'mind' […] is not the exclusive possession of humanity. […] Second, and following from that, is the wrong-headed belief that the individual organism may be understood in isolation from its own environment" (161). Posthuman space, on the other hand, presupposes a mutual form of interaction that is based on corporeal and dialogic interfaces.

[17] 'Anthropocene' as a term was coined by the American paleoecologist Eugene F. Stoermer in the early 1980s; however, it achieved academic recognition following the publication of the article "The Anthropocene," which was co-authored by Stoermer and the Nobel Prize-winning Dutch atmospheric chemist Paul J. Crutzen in 2000 (Otter, "Introduction" 568). Looking at the etymological background of the term, it is seen that the Anthropocene is derived from the Greek words *anthropos* [man] and *kainos* [recent] which means 'the recent age of man,' and it is used to denote the new geological epoch following the Holocene (Whitehead 2).

[18] Criticising the idea that language constructs reality and thereby perpetuates the binary opposition between them; Karen Barad in *Meeting the Universe Halfway* (2007) maintains that

> [l]anguage has been granted too much power. The linguistic turn, the semiotic turn, the interpretative turn, the cultural turn: it seems that at every turn lately every "thing"—even materiality—is turned into a matter of language or some other form of cultural representation. […] Language matters. Discourse matters. Culture matters. There is an important sense in which the only thing that does not seem to matter anymore is matter. (132)

The linguistic turn, by merely focusing on representations, "excludes lived experience, corporeal practice, and biological substance from consideration" (Alaimo and Hekman 4). The material turn, on the other hand, is a direct reaction against the dematerialisation of the more-than-human world along with the bodily dimension of the human into linguistic and social constructions. Accordingly, combined with the material turn, the posthuman turn not only functions as an ecological critique of anthropocentrism but also acknowledges the inherent vitality and the agential capacity of the matter. Thus, posthumanism urges a reassessment of the relationship between human and nonhuman, and challenges human exceptionalism by drawing attention to the agency of the matter. Within this framework, the more-than-human world can no longer be perceived as a passive entity but as a capricious and unstable agency that acts in a posthuman space where the complexity of the relationship between the human and the more-than-human world is acknowledged. This acknowledgement "implies a renewed understanding of the relationships among ontology, epistemology, ethics and politics," as Tillman states (32).

[19] In their article "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?" (2007) Will Steffen, Paul J. Crutzen and John R. McNeill contemplate about the historical origins of the Anthropocene from a comprehensive outlook that also details the Pre-Anthropocene dynamics. Contesting the idea that "preagricultural humans lived in idyllic harmony with their environment," Steffen et al. draw attention to the tool/weapon making abilities of humans as well as their influence on the more-than-human world "through predation and the modification of landscapes, often through the use of fire" (614). Moreover, starting with the

domestication of the dog around 100.000 years ago and "continuing into the Holocene with horses, sheep, cattle, goats, and the other familiar farm animals" as well as the "concomitant domestication of plants during the early to mid-Holocene" humankind's impact on flora and fauna was gradually increasing (Steffen et al. 615). To illustrate, the atmosphere had started to be affected by the significant use of fossil fuels dating back to the Song Dynasty in China (960-1279) where the coal was an indispensable component of the growing iron industry (Steffen et al. 615). On the other hand, starting from at least the 13th century onwards, the coal mines in England were supplying fuel for home heating (Steffen et al. 615). By the same token, outlining the history of human-atmosphere relations, Whitehead suggests that the first traces of human-induced air pollution can be traced back to the 14th century England when "King Edward I passed a Royal Proclamation banning the burning of sea coal in furnaces" in 1306 (46). Still, the King's attempts could not work out in the long run, because around four centuries later "the diarist John Evelyn published his famous observations on London's air pollution problems, *Fumifugium, or the Inconvenience of the Aer and Smoak of London Dissipated*" in 1661, and he commented on the negative effect of the smog on the city's inhabitants (Whitehead 48). To the dismay of Evelyn, however, the problems generated by the air pollution in England "would only get worse during the coming centuries with the onset of industrial revolution" which "would have a profound impact on first Britain's and, ultimately, other countries' atmospheres" (Whitehead 48).

[20] The Holocene describes the former geological epoch which is thought to have started around 12.000 years ago when "pronounced rises in global temperature" (Zalasiewicz et al. 4) initiate the passage from the last major glacial epoch to the inter-glacial period during which the humans start to exchange their hunter-gatherer habits with a more settled lifestyle that focuses on agriculture and animal husbandry, and these developments pave the way for the emergence of modern human societies. Since the Holocene epoch encompasses an extended period of time, it is also possible to see how "mankind's activities gradually grew into a significant geological, morphological force" that starts to leave their imprints on the more-than-human world (Crutzen and Stoermer, "The Anthropocene" 17). As the impact of the human imprint starts to assume a collective character that can act like a force of nature, the Holocene leaves its place to "a new, unprecedented geological epoch, triggered by human actions" (Nixon 2). Nevertheless, it is not possible to ascertain an exact starting date for the Anthropocene since "some date its emergence to the rise of sedentary agricultural communities roughly 12.000 years ago, others to 1610 and the colonization of the Americas, others still to the onset of Europe's industrial revolution circa 1800 or to the Trinity nuclear test of 1945" (Nixon 2). In this regard, though Crutzen and Stoermer admit that assigning a "specific date to the onset of the 'anthropocene' seems somewhat arbitrary," they "propose the latter part of the 18th century" ("The Anthropocene" 17) as the period when the Holocene gets replaced by the 'recent age of humankind':

> However, we choose this date because, during the past two centuries, the global effects of human activities have become clearly noticeable. This is the period when data retrieved from glacial ice cores show the beginning of a growth in the atmospheric concentrations of several "greenhouse gases," in particular CO_2 and CH_4. Such a starting date also coincides with James Watt's invention of the steam engine in 1784. ("The Anthropocene" 17-18)

[21] While *Earth Songs: A Resurgence Anthology of Contemporary Eco-poetry* (2002) includes four poems, "April," "The Apple Shed," "Pruning in Frost," and "Prayer" from Alice Oswald's first published poetry collection, *The Thing in the Gap-Stone Stile* (1996); *Earth Shattering: Ecopoems* (2007) contains "Birdsong for Two Voices" and "Song of Stone" from Oswald's *Woods etc.* (2005), which is the poet's third poetry collection that exemplifies the more-than-human world and the human experience of it. Moreover, *Earth Shattering* also contains "Soldier," "'*My parents kissed – and I was born,*'" "'*Every day I found a new man*' – Ludmilla Ignatenko" and "Envoy" from Mario Petrucci's *Heavy Water: A Poem for Chernobyl* (2004).

[22] Opposing to the classical ideal of man as first constructed by Protagoras as the 'measure of all things,' and its later reinforcement by Leonardo da Vinci's Vitruvian Man (Braidotti 13), posthumanism problematises the reductionist assumptions of humanism. Similar to posthumanism, the post-structuralist approach introduced by the post-1968 generation, rejects the exclusionary discourses of humanism and deconstructs the Vitruvian ideal of Man as "the standard of both perfection and perfectibility" (Braidotti 23). Yet, paradoxically enough, the anti-humanist stance celebrated by anti-fascist, post-communist, feminist, and postcolonial movements – though rejecting "the unitary identities indexed on that Eurocentric and normative humanist ideal of Man" (Braidotti 26), cannot free itself from falling into the crisis of Man. As Braidotti explains, the crisis of Man means that the structural others of the modern humanistic subject re-emerge with a vengeance in postmodernity" (37) and the Vitruvian Man "rises over and over again from his ashes" (29). Accordingly, though criticising the hierarchical assumptions that prioritise the human subject, the anti-humanist stance cannot move perfectly beyond the binaries and ends up with perpetuating the distinctions between humans and nonhumans. The posthumanist perspective, on the other hand, "rests on the assumption of the historical decline of Humanism but goes further in exploring alternatives, without sinking into the rhetoric of the crisis of Man" (Braidotti 37) and works towards introducing alternative modes of conceptualising the human subject. In this sense, as Braidotti argues, posthumanism "marks the end of the opposition between Humanism and anti-humanism and traces a different discursive framework, looking more affirmatively toward new alternatives" (37).

[23] Originally published as "A Manifesto for Cyborgs" in *Socialist Review* in 1985, Donna Haraway's article uses the figure of the cyborg – a human/machine hybrid, which is interpreted "as a symbol for the technological enhancement of the human body and the desire to realise the potential of mankind via, among other strategies, the overcoming of the nature/artifice polarity associated with the Cartesian thought" (Aretoulakis 172).

[24] Coined and articulated by the Norwegian philosopher Arne Naess in 1970s, the term 'deep ecology' envisages the human as a part of the living earth, and it recognizes the inherent value of all beings through urging the human to ask deeper questions related to its place within the environment. According to the premises of deep ecology, therefore, the human is bound to assume a less dominating stance towards the earth by replacing the ego-centric vision with an eco-centric one.

[25] Introduced by the biologist James Lovelock in the late 1960s, the Gaia hypothesis "holds that our planet reacts to any form of atmospheric change to restore the best balance for life via sophisticated global feedback mechanisms" (Wall 74). It means that "whatever harm we do to Gaia, its mechanisms can be expected to counter attacks," thus we should be more careful and less aggressive in our interactions with the environment (Wall 74).

[26] Also see Braidotti's *The Posthuman* (2013) for her criticism regarding the essentialist load of deep ecology as a medium to promote "full scale humanization" of the more-than-human world, 84-85.

[27] Evidently, the human has always been an important environmental agent affecting the course of the natural events; still, the outcomes of the human imprint were limited to local and continental scales in the pre-industrial period. Therefore, as opposed to the collective human imprint whose impact can be observed on a global scale, the preindustrial societies "did not have the numbers, social and economic organisation, or technologies needed to equal or dominate the great forces of Nature in magnitude or rate" (Steffen et al. 615).

[28] Petrucci published over 800 poems, essays and critical articles in daily press, anthologies, journals and magazines including "*The Independent, Ambit, Agenda, Leviathan Quarterly, Poetry*

Wales, The Rialto, Prospice, Iron, Bete Noire, The New Welsh Review, Poetry London Newsletter, Smith's Knoll, Poetry Nottingham, Poetry & Audience, Critical Quarterly and *Blade*" ("curriculum vitae" n.p.). Listed as one of the top three UK poets for 2003 by the Poetry Society (Mălaimare 107), Petrucci also received many awards for his poetry. He is four times winner of the London Writers Competition, as well as the recipient of the 2002 *Arvon/Daily Telegraph* International Poetry Prize, the Bridport Prize, an Arts Council England Writers' Award, a New London Writers Award, and lately 2016 PEN Translates award for his version of Eugenio Montale's *Xenia* ("curriculum vitae" n.p.). Moreover, Petrucci was also commissioned to compose the world's largest 3D poetry soundscape, *Tales from the Bridge*, for the 2012 Olympics, and it was shortlisted for the 2012 Ted Hughes Award for New Poetry. ("biography" n.p.).

[29] *Bosco* (1999), *Heavy Water* (2004) and *Half Life* (2004) draw attention to the devastating impacts of ecological crises such as deforestation, climate change and the Chernobyl nuclear explosion; hence, they are grouped under the poet's ecologically oriented works in this thesis. Nevertheless, in order to demonstrate the extensive scope of Petrucci's poetic career, brief information about his remaining works is necessary. Petrucci's debut collection *Shrapnel and Sheets* (1996), which was a Poetry Book Society Recommendation, centres around such themes as family relationships, wars, and scientific issues. *Shrapnel and Sheets* was followed by two poetry collections: *Bosco* (1999) and *Lepidoptera* (1999). *Lepidoptera* brings Petrucci the poet and the scientist together, as it is "an experimental 'anthology' combining prose and scientific poetry" (Petrucci, "Literature, Science" par. 5). Following his poet-in-residence experience in the London Borough of Havering during the summer of 2000 ("biography" n.p.), Petrucci writes *The Stamina of Sheep: The Havering Poems* (2002) which shows "how to approach and conduct an imaginative poetry residency" ("The Stamina of Sheep" n.p.). Following his residency at Southwell Workhouse in Nottinghamshire in 2005 – the best-preserved workhouse in Britain – Petrucci published *Fearnought: Poems for Southwell Workhouse* in 2006. It is the poet's "direct response to the Workhouse, its architecture, and the people who lived, worked and died there" ("books" n.p.). Petrucci's other poetry collections include *Flowers of Sulphur* (2007) which links back to the poet's Italian origins and family history in addition to presenting an organic balance between science and creative writing; *i tulips* (2010) in which Petrucci turns to American modernism in poetry and uses 'Spatial Form' as a vital element; and *crib* (2014) which is a selection of 40 poems from the total of 111 written for the poet's son Matteo Petrucci. His remaining collections are *somewhere is january* (2007), *Nights * Sifnos * Hands* (2010), *the waltz in my blood* (2011), *the inward garden* (2013), *anima* (2013), *1111* (2014), *crib* (2014) and forthcoming *afterlove* (Autumn 2020). Petrucci's contribution to the contemporary British poetry is not only limited to these various poetry collections, for he has also translated the poems of important literary figures such as *Catullus* (2006), *Sappho* (2008), Eugenio Montale (*Xenia*) (2016), Hafez (*Beloved*) (2018), *Isha Upanishad* (2019)*, Saadi and Rumi (*Dawn Ravens*) (2019).

[30] In his PhD dissertation entitled "Reading Chernobyl: Psychoanalysis, Deconstruction, Literature" (2014), Stuart Lindsay examines the psychological trauma of the Chernobyl victims by using Freudian psychoanalysis and deconstruction. In the second chapter of the thesis, along with the movie *Chernobyl Diaries* (2012), and the science-fiction novel *Yellow Blue Tibia* (2009), Lindsay explores Mario Petrucci's *Heavy Water: A Poem for Chernobyl* "through the collection's exemplary elegies: 'Every Day I Found a New Man,' 'Black Box,' and 'Envoy'" (33).

[31] As announced by the UK Poetry Society's Press Release on June 3, 2008, the resource packs are grouped under three titles, and they are available on the UK Poetry Society's website (http://www.archive.poetrysociety.org.uk/content/poetry-class):

> 1. Poetry: The Environment. Four of the most pressing Environmental themes, comprehensively explored through poetry.

2. Biomimicry: Poetry. This fascinating new branch of science is concerned with solving problems by imitating Nature.
3. The Green Poetry Pack. Poems and writing ideas to engage with the natural world, soil and trees, and local self-sufficiency. ("Poetry Society" n.p.)

[32] Giving precedence to the presence of the lyric I/eye – that is the human gaze – Romantic poetry presents the natural world 'out there' through the insights of the human self. Therefore, "[r]ather than simply experiencing the landscape, we enter the imagination of the poet, who perceives himself to be a part of the landscape and meditates the experience of wilderness through his vivid descriptions" (Ergin 16). In other words, the Romantic poets continue perpetuating the distinction between nature/culture, human/nonhuman, subject/object; therefore, they cannot present a connective rendering of the human/nonhuman relations that exemplify the non-hierarchical model of intra-action and entanglement as predicated by posthuman poetry.

[33] As a "tireless experimenter in poetry" ("curriculum vitae" n.p.), Petrucci contributes to the contemporary British poetics by introducing three new conceptual theories: *Spatial Form*, *Poeclectics* and *LiterARTure* that are described as follows:

> *Spatial Form* draws attention to the effects and influence on readers of the 'Gestalt' (or 'shape') of the poem on the page. As for *Poeclectics* and *LiterARTure*, the former describes, engages with, and enacts, the diverse and eclectic tendencies of contemporary poetry, while the latter describes the ways in which a writer can generate 'synaesthetic' effects through the deployment of poetry in three-dimensional space at various public sites. ("curriculum vitae" n.p., emphasis in original)

In line with Petrucci's interfusion of the semiotic/symbolic with the physical/material – as it is apparent in the way he embraces pluralism in form and style through his introduction of the term 'Poeclectics' – he carries the poem off the page and imbues it with a physical existence on its own through 'LiterARTure' – as it has been exemplified in Petrucci's taking part in the *Search and Create* project.

[34] By nurturing "connection, empathy and sensitivity" (Petrucci "The Grass" par. 3), Petrucci's posthuman poetry lifts our eyes off the page and enables us to reconfigure our relationship with the more-than-human world, as well as urging us to pay attention to the vulnerability of the distinctions upheld by the binary oppositions such as subject/object, nature/culture, material/semiotic and human/nonhuman. In this respect, referring to the function art, and of poetry particularly, Petrucci states that

> [f]or me it's [poetry] a means of achieving intensity and clarity together. In particular it is a way of clearing illusion. Every age has certain possibilities into which poetry can distil something important. Our age is an age of decline in resources and overconsumption. Oil is about to run out in a few decades, so there are some very tough times ahead. Art is a crucial way to decide what we are going to be as a species, a humanity. It's that big. Most of the society at any time is asleep, or half awake, so any art form that wakes society up, if it's genuine, will be an alarm bell. It will reflect to society that it's time to react, to think, to explore what we are. ("regulars" 8)

[35] In his interview with Dmytro Drozdovsyki in 2005 Petrucci describes *Bosco* (1999) as "a book-length sequence on deforestation" ("Literature, Science" par. 5) where he deals with "the end of innocence, the erasure of forests, [and] the irreversibility of our current environmental path" which is directly heading to global warming (par. 20).

[36] In their "Introduction" to *Wild Reckoning* (2004), which is an anthology inspired by Rachel Carson's *Silent Spring* (1962) that warns against the disappearance of the bird songs due to the widespread use of the pesticides, John Burnside and Maurice Riordan state that

> [a]ll of us, writers and artists, biologists and technicians, have a duty to the natural world, and to all those others – human, animal and vegetable – who share it. Our vision must be larger than our given field; it must be – in the full sense of the word – intelligent. We cannot belong to one thing and not another. To belong, as Rachel Carson knew, is *to belong to everything, to be part of an uninterrupted whole*. (15, emphasis added)

[37] As Whitehead notes, the rate of forest loss has been increasing rapidly throughout the world, and it "began some 6000 years ago with the birth of agriculture and has reached its climax with the modern global timber industry" (98).

[38] In fact, this is not the first time that the Earth is facing environmental crises. As Morton reminds us, there have been five mass extinctions before – the most recent one was caused by an asteroid, and it resulted in the annihilation of the dinosaurs (*Being Ecological* 5). Even before that, the fourth mass extinction, which is called the End Permian Extinction, happened due to global warming, and it destroyed almost all of the life forms (Morton, *Being Ecological* 5). Extending over a period of time, however, none of these mass extinctions happened suddenly. Hence, Morton ironically states that now it is the humankind's "turn to be an asteroid, because the global warming that we cause is now bringing about the Sixth Mass Extinction" (*Being Ecological* 5). Thus, Morton recommends that, in order to increase the impact of the expression, we should stop calling it 'global warming' or 'climate change' because they are weaker terms when compared with the 'mass extinction' – "which is the net effect" of the ecological predicaments threatening the human and the more-than-human world today (*Being Ecological* 5).

[39] The word *arboretum* means "a botanical garden devoted to trees" (*OED Online* n.p).

[40] Petrucci, moreover, has worked as the first ever Poet-in-Residence at the Imperial War Museum in 1999. During his stay at the museum, as the leading exponent of the site-specific poetry, Petrucci has devised the "Imperial War Museum's Poetry Hunt (entitled *Search and Create*)" which requires the visitors to find the poems located in different parts of the building (Petrucci, "Making Voices" 70, emphasis in original). In *Search and Create* the "poems are hidden on all three levels of the museum among the permanent exhibits such as tanks, guns, boats, planes, and rockets" ("Critical perspective" n.p.). To illustrate:

> *Trench* is a keystone item in *Search and Create* […]. It involves a telescopic sight down which, almost invariably, visitors cannot resist looking: whereupon they see the poem fixed to a distant pillar. […] The poem extends itself into – and is conditioned by – the optical system of the telescope, an interaction underscored through careful sitting of the poem. […] There are also strong resonances between the poem's structure and the act of viewing, stressed visually and sonically through certain formal aspects of the piece. (Petrucci, "Making Voices" 70, emphasis in original)

In this way, Petrucci brings the poems off the page and creates "a *synaesthetic space* in which text, reader and environment draw on one another for new associations and resonances" (Petrucci, "Making Voices" 70, emphasis in original). Integrating the posthumanist focus with Petrucci's attempt to create a *synaesthetic* space, it can, thus, be said that just as the way human/nonhuman, nature/culture, subject/object dichotomies are destabilised in a posthuman space of becoming that points towards a more dynamic and open form of intra-actions, the textual entity of the poem does

also function like a posthuman space in which the poet, the reader and the 'environment' come together to delineate a non-hierarchical form of entanglements.

[41] Indicating the randomness of events in that it is not possible to have a complete grasp of the agential capacities of the nonhuman matter, "the forest of possibility" (Petrucci, *Bosco* 5 43) can be interpreted to signify the fact that the more-than-human world can never be contained within the humanist paradigms of human domination.

[42] Underscoring the importance of *poiesis*, therefore, Petrucci states that poets can make us aware of "the presence of the Other" or "draw attention to important issues we're forgetting to look at, or perhaps even to the more fundamental problem of no longer knowing how to look" (qtd. in Carthew par. 19). On this view, in his representation of a posthuman space of becoming, Petrucci enables the speaker to imagine what it means to be a nonhuman 'object' / 'other' – through becoming an octopus that cannot survive out of water, and then becoming a tree that waits for the axeman to blow his axe.

[43] "Woodsmoke" can be interpreted to indicate the uncontrollable levels of global warming so much so that the Earth will have to deal with catastrophic wildfires that are likely to devastate each and every bit of green areas that remain in the future.

[44] Referring to the proceedings of the National Academy of Science report, "Trajectories of the Earth System in the Anthropocene" (2018), the Climate Council, which is Australia's leading climate change communications organisation, indicates that when the climate tipping point is exceeded, it is likely to spark "a chain reaction of feedbacks in the climate system that could skyrocket global average temperature to well beyond a 2°C rise within a century or two and eventually lead to sea-level rises of from 10 to 60 metres higher than what is seen today" ("Point of No Return" par. 2).

[45] The world tree, which is "also called cosmic tree, centre of the world, [is] a widespread motif in many myths and folktales" ("World tree" n.p.). It has two forms: "In the one, the tree is the vertical centre binding together heaven and earth; in the other, the tree is the source of life at the horizontal centre of the earth. Adopting biblical terminology, the former may be called the tree of knowledge; the latter, the tree of life" ("World tree" n.p.). In its vertical version, that is, in tree of knowledge, the tree functions as a bridge between the earth and the heaven; hence, serving as a "vital connection between the world of the gods and the human world" ("World tree" n.p.). In its horizontal version, that is, in tree of life, "the tree is planted at the centre of the world and is protected by supernatural guardians. […] Human life is descended from it; its fruit confers everlasting life; and if it were cut down, all fecundity would cease" ("World tree" n.p.). With the death of the oak tree, therefore, the "Shaft of the world tree / breaks," exhibiting the breakdown of the paramount connection between humans and the flora (Petrucci, *Bosco* 27 38-39). What follows after is a total disintegration because humankind can no longer hold on to a sense of solidarity that will keep them together.

[46] See Kate Rigby's "Deep sustainability: ecopoetics, enjoyment and ecstatic hospitality" (2017) for her criticism of the absence of "the ethical regard for other-than-human beings" (58). Rigby argues that the attempts of biodiversity conversation for future generations is likely to prove ineffective because they are "unlikely to care much about species that had disappeared before they were born, especially as they are likely to live on simulacra (which is the only way that most children have contact with them today anyway, give or take the occasional zoo visit)" (59). Therefore, instead of justifying the human need to "contact with nonhuman others and more-than-human places" and finding relief in "pet ownership, farm visits, country rumbles, bush walks and the provision of urban parks and gardens," a more eco-centric form of sustainability is needed to

be able to meet the needs of "free-living species in far-flung locations, where little human contact is feasible, or probably even desirable, on a regular basis" (59).

[47] Unlike the meaning of the title of the poem "Exodus," which connotes the mass departure of people from one location to another, it does not seem probable that humankind can leave the Earth to settle in a new planet in the near future.

[48] The question that was asked by one of the victims of the Chernobyl nuclear disaster, Yevgeniy Brovkin, an instructor at Gomel State University in Belarus, clearly summarises the motivation behind Petrucci's attempt to compose *Heavy Water* and *Half Life*:

> I've wondered why everyone was silent about Chernobyl, why our writers weren't writing much about it—they write about the war, or the camps, but here they're silent. Why? Do you think it's an accident? If we'd beaten Chernobyl, people would talk about it and write about it more. Or if we'd understood Chernobyl. But we don't know how to capture any meaning from it. We're not capable of it. We can't place it in our human experience or our human time-frame.
> So what's better, to remember or to forget? (Alexievich 86)

Embodying the global environmental injustice, the Chernobyl accident shows that "[i]nevitably those affected by the downside of technology will usually be the bystanders, ordinary people, like those whose voices ring out in Petrucci's *Heavy Water*. The poem was 'born of an urge to remember'" (Carthew par. 15). In other words, Petrucci's was an attempt to "draw attention to the issues we are forgetting" (Carthew par. 19). Concerning the compositional process of *Heavy Water* and *Half Life* Petrucci, thus, states that it felt "more like taking dictation" because the victims of the disaster "refused to be ignored. […] They continued to speak to me, beyond the point at which Alexievich's book stopped" ("Literature, Science" par. 38).

[49] In her detailed analysis of the global environmental injustice of Chernobyl that was sanctioned by international scientific and political communities such as the IAEA (International Atomic Agency) and the ICRP (International Commission on Radiological Protection) that are mostly dominated by the nuclear industry, Kristin Shrader-Frechette in her article "Chernobyl, global environmental injustice and mutagenic threats" (2000) affirms that

> [t]wo and a half years before the disaster, experts writing in a German nuclearindustry journal said that the Chernobyl-type reactor, the RBMK, was very reliable, […]. Less than three years prior to the accident, writing about the Chernobyl-type plant, B. Semenov, Head of the Nuclear Energy and Safety Department of the IAEA, wrote that 'a serious accident in which coolant is lost is virtually impossible' (Semenov, 1983:47-60). Yet for their own plans, in 1947 the British rejected the Chernobyl-type design on safety grounds, and in 1958 the Germans criticized it as inherently dangerous. Nevertheless, the IAEA was giving reassurances about the very types of plants that Western nations had rejected. (74)

Nevertheless, as it has been pointed out by Stacy Alaimo in "Trans-Corporeal Feminisms and the Ethical Space of Nature" (2008) toxic bodies serve as a suitable platform to examine the ethical space of trans-corporeality (260). As she explains, "all bodies, human and otherwise, are to greater or lesser degrees, toxic at this point in history"; therefore, even if humans and nonhumans reside away from the contaminated areas the traffic in toxins render them susceptible to the hazardous impact of the radioactive particles ("Trans-Corporeal" 260). Hence, "the ethical space of trans-corporeality is never an elsewhere but is always already here, in whatever comprised, ever-catalyzing form" (Alaimo, "Trans-Corporeal" 260). On this view, the Western nations' rejection of the construction of Chernobyl-type reactors in their countries while the IAEA reassures about

their safety on the grounds that the reactors are to be built away from Europe raises fundamental questions regarding environmental injustice and ethical corruption. Shrader-Frechette remarks that nuclear proponents such as the IAEA might well influence the public response to the environmental injustice by underestimating and undercounting the damage caused by the Chernobyl disaster because they are the ones "who frame the questions and control the answers" (83).

[50] Known as Ukritye ("The Shelter"), the fourth reactor still contains nuclear fuel in its nuclear core. In order to cover the radioactive core of the damaged reactor, therefore, the liquidators also worked for the construction of a massive enclosure that was made of steel and concrete (Johnson 14). The enclosure, also named as the Sarcophagus (coffin), functions as a shield preventing the radioactive particles from escaping from the buried nuclear core (14); nevertheless, as it is stated in *Ogonyok* magazine in 1996, the sarcophagus was

> constructed in absentia, the plates were put with the aid of robots and helicopters, and as a result there are fissures. According to some figures, there are now over 200 square meters of spaces and cracks, and radioactive particles continue to escape through them . . . ("Historical Notes" qtd. in Alexievich 3)

[51] To prevent further radiation leaks from the Chernobyl complex, in November 2016 a huge steel shelter, known as the New Safe Confinement Structure (NCS) was placed over the crumbling sarcophagus, which is still covering the damaged reactor Number four at the Chernobyl Nuclear Power Plant. However, the reports of SSE Chernobyl NPP, which is a Ukrainian company managing the Chernobyl, also announced in November 2016 that the sarcophagus had a very high probability of collapse (Bendix par. 6). Hence on July 29, 2019 the company signed a contract with a construction company to dismantle the sarcophagus by 2023 (Bendix par. 7). The NCS is expected to" keep to area confined for another century, giving workers enough time to remediate the site" (Bendix par. 11).

[52] In her introduction to *Dart*, Oswald states that over the past two years she has been recording the interviews she has made with people that "live and work on the Dart" (n.p.). Using these records as "life-models from which to sketch out a series of characters" Oswald creates a polyphonic meshwork where the voices of the human and the more-than-human world intermingle into one another (n.p.).

[53] According to the Australian Aboriginal mythology, songlines are believed to be "the journeys taken by the creation ancestors (or creator-beings) across the land during the Daydreaming" (Mingren par. 1). As Mingren explains further, the Daydreaming refers to the period in which the earth was being designed. During this period, the creator-beings start travelling across the land, and they create the landscapes (par. 2). The route they follow is memorised with the help of ancient songlines that pass from one generation to the next, and these songs function as guiding maps that allow people to travel across vast distances without getting lost (par. 4).

[54] See Karen Barad's *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (2007) for her discussion of the diffractive methodology as a tool to entail a non-dualistic perspective that interprets "the cultural and the natural together in illuminating ways" (135).

[55] The term actant, as it is described in Bruno Latour's *Politics of Nature*, is "an entity that modifies another entity in a trial" (237). Besides, as Jane Bennett elaborates more on the concept, "an actant is a source of action that can be either human or nonhuman, it is that which has efficacy, can *do* things, has sufficient coherence to make a difference, produce effects, alter the cause of

events" (viii, emphasis in the original). In this regard, presenting the river as a site of transformation that has its own agential capacities in *Dart*, Oswald articulates both the human and the more-than-human world as vital forces that constantly affect and be affected by one another in a posthuman space of becoming.

[56] In her interview with Armitstead, Oswald states that "I'm mostly interested in life and vitality, but you can only see that by seeing its opposite. I love erosion: I like the way that the death of one thing is the beginning of something else" (par. 9). In this respect, "death is figured as just another stage in the interplay of self and environment seen at ecological scale" (B. Smith 70), and it functions as a transformative power showing how everything is in a constant flux.

[57] Flushing is a system used in dairy farms to "clear out manure from feeding lots and stalls, and direct it to flush lanes, which run between barn stalls" (Gushansky et al. par. 6).

[58] *Cryptosporidium* is a parasite that causes a diarrheal disease. It can be spread in various ways; however, "water (drinking water and recreational water) is the most common way to spread the parasite" ("Parasites" n.p.).

[59] Sabrina is a mythological figure who is associated with the River Severn. Appearing in Geoffrey of Monmouth's *The History of the Kings of Britain* (c. 1136), Sabrina is the daughter of King Locrinus, who is drowned by Gwendolen, the rightful wife of the King, out of jealousy in the River Severn. On Gwendolen instructions, the river starts to be known by the young girl's name so that King Locrinus's infidelity does not get forgotten. (Witts n.p.). In time, Sabrina becomes known as the nymph/goddess of the river (Trowbridge n.p.).

[60] Hereafter, the expression, 'emphasis in original' will not be used for the in-text citations that refer to the poet-figure because all of her inscriptions are presented in italics except for her full representation on the last page of *Sleepwalk*.

[61] Rather than simply anthropomorphising nonhuman entities, *Sleepwalk* attempts to call attention to the common points shared by humans and nonhumans. As a methodological tool, therefore, posthumanism provides the necessary critical stance that acknowledges how the strategies of literary representation function as a medium that expresses the agency of the material world. See Timothy Clark for his elaboration on how these strategies acknowledge the agency of nature, 162-164. Also see Jane Bennett for her discussion concerning the use of anthropomorphism to reveal similarities across the established human/nonhuman, culture/nature dualities, 98-100.

[62] For a more detailed account of the floods that took place on the River Severn see Paul Homewood's "Historical Floods in Worcester."

[63] Added to UK's red list by the IUCN (International Union for the Conservation of Nature) in December 2015, curlew is one of the rare species of birds that face the threat of becoming extinct. Spending the winter in coastal areas they could be found in abundance on moorlands and estuaries in the UK and Ireland. However, "now under threat from intensive agricultural practices, and the loss of its habitat […] the number of breeding pairs has declined by 60% in the last 20 years" (Crampton par. 1). If curlews are not protected thoroughly, it is estimated that "these birds will be gone in eight years" ("About Curlew" n.p.).

[64] The mood-altering effect of the full moon has been acknowledged for centuries: "The word lunacy derives from the Latin *lunaticus*, meaning "moonstruck," and both the Greek philosopher Aristotle and Roman naturalist Pliny the Elder believed that madness and epilepsy were caused by the moon" (Geddes, par. 6).

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