ECOCRITICAL PERSPECTIVES IN FICTION: OBJECT EARTH AS A LENS FOR THE PLANETARY AND THE GLOBAL IN SAMANTHA HARVEY'S *ORBITAL*

PERSPECTIVAS ECOCRÍTICAS EN LA FICCIÓN: EL OBJETO TIERRA COMO LENTE DE LO "PLANETARIO" Y LO "GLOBAL" EN *ORBITAL*, DE SAMANTHA HARVEY

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Abstract

The numerous causes of climate change and the unintended scalar effects of human activity are increasingly highlighting the chasm between the workings of the planet and human actions, entangled in a complex web of causes and effects that seems to eschew a comprehensive view. This widening gap is posing challenges to human cognition and, as a result, to ecocritical fiction. This article aims to analyse how the fracture between the planetary and the global, discussed by Dipesh Chakrabarty, is rendered in fiction in Samantha Harvey's *Orbital* through the representation of object Earth. By interweaving Iovino and Oppermann's material ecocriticism with ecocritical scholarly reflections, I will show how the object Earth in the novel —apparently observed from the outside area of the International Space Station— thematises the difference between the planetary and the global, and how Harvey's narrative strategies attempt to capture climate change and the planet by circumventing the hurdle posed by scale.

Keywords: Samantha Harvey, the planetary and the global, material ecocriticism, ecocriticism, Anthropocene.

Resumen

Las numerosas causas del cambio climático y los efectos escalares accidentales de la actividad humana resaltan cada vez más la diferencia entre los mecanismos de

funcionamiento del planeta y las acciones humanas, en un entramado multifacético de causas y efectos que parece eludir una visión integral. Esta creciente diferencia está planteando desafíos a la cognición humana y, en consecuencia, también a la ficción ecocrítica. Este artículo tiene como objetivo analizar cómo la fractura entre lo planetario y lo global, comentada por Dipesh Chakrabarty, se representa a nivel narrativo en *Orbital*, de Samantha Harvey, a través de la representación del objeto Tierra. Entretejiendo la ecocrítica material de Iovino y Oppermann con las reflexiones ecocríticas de varios académicos, mostraré cómo el objeto Tierra novelístico —observado desde el lugar aparentemente externo de la Estación Espacial Internacional— pone en primer plano la diferencia entre lo planetario y lo global, y cómo las estrategias narrativas de Harvey intentan captar el cambio climático y el planeta, sorteando el obstáculo de las magnitudes escalares.

Palabras clave: Samantha Harvey, lo planetario y lo global, ecocrítica material, ecocrítica, Antropoceno.

1. Introduction

In the field of ecocriticism, reflections on the partiality of human perspective and its biased sensorium have found concrete, multi-faceted expression in phrases such as "tree blindness" (Popkin 2017) —the widespread human tendency to overlook trees and fail to distinguish tree species— or "ocean deficiency" (Dobrin 2021: 9), ecocriticism's greater focus on land-locked perspectives rather than ocean-centred texts. After the 'green' and 'blue' turns,[1] Samantha Harvey's *Orbital* adds a 'planetary' edge to considerations on the ability of the senses to make meaning when confronted with the planetary scales of the Earth and climate change in the Anthropocene.

In his painting *The Astronomer* (1668), Johannes Vermeer captured human curiosity about the world in an image that conveys the limits and inadequacy of human perception when faced with global scales. This impression is rendered through a series of subtle pictorial elements, such as the model-like quality of the small globe perused by the astronomer, his squinting eyes, his lips parted in wonder as he tentatively touches the sphere, which seems to betray shyness rather than self-assuredness. Outside the visual arts, the fallibility of human perception in grasping the surrounding environment and conceptualising its complexity was a long-standing literary and narratological topic well before Vermeer's 17th-century painting. However, the issue of perspective is increasingly being framed by ecocriticism in the wider context of the Anthropocene and the practices of meaning-making in the face of climate change, whose extension and all-encompassing nature pose challenges to human situated cognition.

By employing the painting-related framework built by the author through transformative references to Velazquez's *Las Meninas* and other similar visual stimuli, this article aims to read Harvey's short novel (almost a novella) through the lens of material ecocriticism to examine the representation of the object Earth and the challenges it poses to human perception and fiction. As stated by Serenella Iovino, "Material ecocriticism is posthuman performativity in its narrative disclosure" (2012: 459), where "narrative" refers to nonhuman subjects' agency but could also pertain to the narrative sphere of fiction, a reading strengthened by the narratological discussions on literature in the Anthropocene by ecocritical scholars such as Adam Trexler (2015), Amitav Ghosh (2017) and Timothy Clark (2023). As will be demonstrated, in *Orbital*, the partiality of human perspective and the fallibility of the human sensorium are depicted through a prismatic literary representation and portrayed as a filter through which the planet may be contemplated. The narrative frame of the novel also reflects the narratological challenges posed by the representation of the Earth in literature by ending with three scenes belonging to the realms of the global and the planetary. Ultimately, these spheres become intertwined by the destructive action of a typhoon and are reconciled in a narrative gesture that draws attention to its own insufficiency, in line with narratological attempts to embrace the scalar heights of the Anthropocene and climate change.

An "Anthropocene book resistant to doom" (Harris 2023) and the 2024 Booker Prize winner, Samantha Harvey's *Orbital* (2023) focuses on humankind's sensory fallibility in relation to planet Earth, an object of observation "as intricate as a Fabergé egg" (Harris 2023). Centred around six astronauts on the International Space Station (ISS) —Nell, Shaun, Anton, Roman, Chien and Pietro— Harvey's work reconciles lyricism with scientific knowledge in a tentative narrative fabric that weaves an image of the Earth from a human perspective that has been removed from the planet's surface and placed in the emptiness of space. Harvey's Fabergé-like representation of the planet —which, in modernist fashion, becomes fragmented the closer one looks but succeeds in conveying a pleasant sense of intricacy and attention to detail from afar— resonates with another painterly representation of the globe, or rather a section of it, encompassed in another work of contemporary literature.

Fifteenth-century Venetian monk Fra Mauro's *Mappa Mundi* —one of the first maps to represent the Indian Ocean as open water not hemmed in by a southern land mass (Gurnah 2011a: 261)— is an important reflective fulcrum for Nobel laureate Abdulrazak Gurnah — a prominent writer on the Indian Ocean (Hofmeyr 2010: 723; Oruc 2022: 147). In Gurnah's short story "Mid Morning Moon", the map is incorporated in the story and could become what Lucinda Newns termed

a "narrative object" (2020: 128, emphasis in original), both because a story issues from it and because the map itself was partly drawn thanks to stories: "The Fra listened to what travellers had to say" (Gurnah 2011b: 27). The map struck Gurnah's literary imagination in its attempt at depicting an unknown world, at pushing geographical perspectives further and overcoming perspectival boundaries in what can be defined, in the writer's opinion, as an attempt at cosmopolitanism ante litteram: "a Venetian monk on the island of Murano in the Venice Lagoon studies a variety of Arab, Indian, and European sources and, without stirring from there, constructs a map of the world" (Gurnah 2011a: 261). As with Vermeer's astronomer, the product of this endeavour is a model, a sample-like representation of a planet that can never be sketched in its entirety, thus being zoomed in on through a detailed portion of the Indian Ocean, or being essentialised in a small globe, in Vermeer's case. Both instances show the visual and conceptual connections between literature, the representation of the world and cartography, stressing the challenges posed by scalar heights to human understanding — similar concern is explored in *Orbital*.

Introducing Samatha Harvey's latest novel through such visual stimuli is not an attempt to make the case for the already largely-advocated-for connection between visual arts and literature. Rather, considering a planetary turn in ecocriticism, it seeks to sow the first seeds of a fluid framework aimed at capturing the issue of human perspective on the Earth in the Anthropocene. *Orbital* is concerned with the dreams, feelings and memories of the six astronauts during a whole day of orbiting around the planet, which they contemplate through the orbits and which becomes a catalyst for their memories and thoughts about the meaning of home. Grounded in the environmental humanities, the framework I employ reads the novel's representation of the Earth through green, blue and material ecocriticism, as well as various forms of visual production, including paintings and photographs taken up by Harvey in the story. After exploring the object Earth in the novel through Velazquez's painting *Las Meninas* and Michael Collins's photograph of the blue marble, I will focus on other narrative strategies that bridge the global/planetary distinction by analysing the themes of gestation and water through philosopher Simone Regazzoni's thoughts. The final part will zoom in on a Category Five typhoon as a narrative element that closes the novel in a gesture of juxtaposition and connection of different scales.

The interdisciplinarity of this framework seems appropriate for this novel, which appears grounded in a visual, painting-like frame from the very beginning, when *Las Meninas* becomes the centre of reflections on the multiplicity of perceptions and focal points, whose ultimate meaning seems to be the contemplation of burgeoning possibilities and, therefore, the impossibility of reaching an unambiguous view. In

this paper, the fluidity of this painting-related framework is complemented by the ecocritical solidity of Timothy Clark's (2008; 2019; 2023), Timothy Morton's (2011; 2014) and Dipesh Chakrabarty's (2021) reflections. Whether embodied by Vermeer's astronomer, by Fra Mauro's map of the Indian Ocean or by Velazquez's masterpiece, the limitedness and naiveté of human attempts at overcoming the boundaries of perception and embracing global scales can be considered the pictorial expression of Chakrabarty's distinction between the global and the planetary. These terms entail the "coming together of the relatively short-term processes of human history and other much longer-term processes that belong to the history of the Earth system and of life on the planet" (Chakrabarty 2015: 50). It is precisely one of those 'rifts' in the conceptualisation of climate change —described as "fault lines on a seemingly continuous surface: we have to keep crossing or straddling them as we think or speak of climate change" (Chakrabarty 2015: 45)— that *Orbital* transplants into the narrative field of a novel set in space.

2. Anthropocene Perspectives: The Limits of Human Perception and the Narrative Boundaries of the Novel

In the Anthropocene, the gap between planetary and human temporalities is symbolised by two Greek terms referring to distinct temporal spheres: Chronos and Kairos (Northcott 2015: 107), whose difference follows the rift between the "epiphenomenal character of human history" and the deep history of life on Earth (Northcott 2015: 102). This clash is difficult to grasp in terms of perspective and, consequently, may go unacknowledged in a conceptual fold that conflates the life of the planet with that of the human species. Since it stems from a human-centred perspective, this impression can be traced in literature, even in contemporary texts that are not strictly ecocritical. This may be observed, for example, in the following passage in Abdulrazak Gurnah's *Dottie* (1990):

> The landscapes were simple and uncomplicatedly benign, places where she would be able to sit silently on a log beside the path or atop a rock like a harmless and romantic innocent. They were places she could make-believe were made for her, anyone could, and where she could feel at one with everything. She had even been in such places, or perhaps it was truer to say that she had felt such moments, when the colours and the symmetry of objects had a rightness as if that was how they had always been since the very first times, and always will be. (Gurnah 2021: 242)

Published in 1990, Gurnah's novel is not concerned with ecocriticism, and the planetary/global distinction is not among the themes it explores. Precisely for these reasons, it is interesting to find this impression elicited by a landscape with aesthetic and spiritual traits which, Chakrabarty would say, becomes a screening

device of mutuality that hides the richness and vitality of the histories of geology and life from human cognition (2021: 188). This view seems in line with Val Plumwood's suspicion of landscape concepts as a frame between the viewer and the land which creates distance and encourages idealist approaches towards the land (2006: 123). Indeed, as Chakrabarty clarifies:

> Mutuality arises for a single human being who faces what surrounds her or him from within the solitariness of her or his singular human life and who experiences the surroundings not only as rising up to meet her gaze but also […] as stable. For it is the stability of the landscape that allows for the experience to be repeated. (2021: 188-189)

Like the human perspective, literature also struggles to adjust to planetary temporal and physical scales. As Bonneuil points out, creating a conceptual narrative about the Anthropocene necessarily entails, among other things, "selecting a focus and a 'framing' that highlights some actors and phenomena while leaving others in the shadows" (2015: 17). In this case, the chosen focus of *Orbital*, namely the perspective of the six astronauts on the ISS, seems to portray the planet as an object so as to capture the environmental issues it contains, while also problematising its status as ultimate object, a 'thing' encompassing all nonhuman and human life we are familiar with. Possessing a planetary history that also includes human history, the object Earth appears as the quintessential "storied matter" (Iovino and Oppermann 2014a: 1), where "matter" comprises both human and nonhuman life, in a gesture that aligns with Jane Bennett's appeal to "*raise the status of the materiality of which we are composed*" (2010: 12, emphasis in original).

In one passage of the novel, the object Earth seems to lack solidity: "From out there it doesn't have the appearance of a solid thing, its surface is fluid and lustrous" (Harvey 2024a: 68). Even in the opening scene, the fluid materiality of the planet clashes with the solidity of a series of smaller objects, abandoned in disarray after the party thrown by the six astronauts to celebrate a team of fellow astronauts' departure for the moon: "Four blue balloons are buoyed on the circulating air […]. There's a smear of chocolate on a pair of scissors and a small felt moon on a piece of string, tied to the handles of the foldable table" (Harvey 2024a: 1). This series of objects, made even more real in their materiality by their vivid descriptions, is thus juxtaposed to a planet characterised by fluid or fuzzily incorporeal traits: "Outside the earth reels away in a *mass of moonglow*, *peeling backward* as they forge towards its *edgeless edge*; the *tufts* of *cloud* across the Pacific brighten the nocturnal ocean to cobalt" (Harvey 2024a: 1, emphasis added). Yet this juxtaposition highlights similarities as it shows differences, eventually bringing both the party-related objects and the planet under the same category of matter.

This nature of matter, of its 'object-ness' that entails uniqueness as much as equalising enmeshment in a wider agential network, is explored in the novel through other narrative devices. Indeed, a reconciliation between object-oriented ontology and ecocriticism is fostered by the narrative choice to include as part of the plot some lists made by Chien, a Japanese astronaut, as well as structuring long paratactical sentences stringing together series of items — possible further instances of the "Latour Litanies" that Morton maintains are important to object-oriented ontology (2011: 173). Taking a glass of water as an example, Morton maintains that objects are irreducible and that they withdraw, no matter the effort at embracing them holistically:

> even if I could exhaust every single aspect of the glass of water (melting it, smashing it, evaporating it, shooting its silicon atoms around a particle accelerator, writing a story about it, pretending it's a glass of liquid gold, ignoring it), *it would still withdraw*. Even if *every other object* in the entire universe were to exhaust every single aspect of the glass, it would still withdraw. (2011: 166, emphasis in original)

In the same way, in *Orbital*, object Earth withdraws from the astronauts' cognitive attempts at comprehending it in ways that are unambiguous for each of them, let alone for humankind.

2.1. Visual Stimuli in Orbital: The Meaning of Paintings and Photographs

In Harvey's novel, the emphasis on the inevitable partiality and incompleteness of human perspective may be said to emerge from the reference to Velazquez's painting *Las Meninas*. Indeed, *Las Meninas* could be used as a pictorial/conceptual key to read and situate the object Earth in this novel. That the artwork poses challenges to perception and focalisation through its dizzying games of mirrors is testified, for example, by the fact that French philosopher Michel Foucault dedicated an essay to the masterpiece and its "subtle system of feints" (2007: 3). Experimenting with ekphrasis, Harvey depicts the famous artwork through the thoughts of one of the astronauts, who first spoke to his future wife in high school during a lesson on Velazquez's work of art. Years later, his wife gave him a postcard of the painting, which he now contemplates while on the ISS: "he finds himself staring at it, at all of the possibilities of subject and perspective that his wife wrote out on its reverse. The king, the queen, the maids, the girl, the mirror, the artist. […] There's the lingering sense of an unfinished dream, something wild in his thoughts" (Harvey 2024a: 7).

Although this work of art becomes archetypical in the novel because it is introduced in the first pages, it is by no means the only occasion on which a mirroring/mirrored self is continuously centred and de-centred. The picture of the Earth taken by Apollo astronaut Michael Collins —"the only human being

not in that photograph" (Harvey 2024a: 43)— prompts two dreams in Anton, a Russian cosmonaut. In the first dream, he is looking at the photograph and enters it, taking on Collins's perspective. In the second, Anton adopts the perspective of the planet: "he saw his voice, or *was* his voice — standing on the very surface of the earth looking out into space and to the moon […] he was shouting up at his wife who was now behind the lens of the camera somewhere on or near this distant moon" (44, emphasis in original). Part photographer, part object being photographed, Anton seems to experience the considerable difference stemming from which position one occupies with respect to the flimsy filter of a camera lens. Anton's dreams call to mind Michael Collins's photo of the 'blue marble', evoked by the phrasing "a blue half-sphere hanging in all blackness and bearing mankind" (42-43), as well as by the expressions "blue pull of the earth" (32) and "glass marble in blackest space" (128). Again, what makes the photo akin to *Las Meninas* is a matter of multiple perspectives contradicting each other to the point of questioning the very objectivity of reality and the existence of an unambiguous perspective at all:

> What of all the people on the other side of the earth that the camera can't see, and everybody in the southern hemisphere which is in night and gulped up by the darkness of space? Are they in the photograph? In truth, nobody is in that photograph, nobody can be seen. […] The strongest, most deducible proof of life in the photograph is the photographer himself […] the more enchanting thing about Collins's image is that, in the moment of taking the photograph, he is really the *only* human presence it contains. (Harvey 2024a: 43, emphasis in original)

This iconic photo was discussed by both Dipesh Chakrabarty and Timothy Clark. The former maintained that, together with Rachel Carson's *Silent Spring*, it helped show the world's oneness (Chakrabarty 2021: 17), thus putting an end to what Timothy Clark would consider an externality (2008: 48). Instead, Clark places emphasis on the disruption of scale effected by the photo, "whose initial force is to dislocate given frames of meaning-making and scale" (2023: 31). Precisely like Velazquez's masterpiece, the photo is about perspective, how viewers position themselves in terms of an object and what meanings are drawn from those stances. A review pointed out that the contrast between the picture by Collins and the painting by Velazquez is considerable (Ferris 2023), while it seems to me that they are both a product of their time and embody themes such as the illusion of representation, the flimsiness of images and the instability of perspective. Thematising this in very different guises —a 17th-century oil painting and a 1960s photograph— only testifies to the enduring power of these themes and the constantly morphing shapes with which they impose themselves on our attention.

In Joshua Ferris's review of *Orbital*, the author states that Harvey's novel is like Collins's picture, because it fails to reflect the world, even though it contains it (Ferris 2023). Acute in its perception of a wider connection between the visual stimuli in the story and the narrative fabric of the novel, the text nonetheless reveals that any form of representation is invariably an act of partial failure and partial fulfilment. When Timothy Clark says of Collins's photo that "The Earth is both an object *in* the picture, but also the frame and the ground of picturability" (2023: 34, emphasis in original), he is describing the situation in which Harvey's fictional characters find themselves: trying to make sense of the Earth and comprehend it as a whole without being able to escape the 'terrestriality' of their human perspective, cognitive faculties and language. Clark's concept of terrestriality —"the elusiveness, intellectual difficulty and counter-intuitive nature of day-to-day life when trying to think the Anthropocene" (2023: 39)— could be paired with Chakrabarty's principle of the 'global' but does not refer to it, although, in my opinion, it participates in its construction. In the novel, there are many examples showing how perspective is flawed and how representations of reality fail to capture a single meaning to be pinned down, being forcefully opened and ripped apart to encompass a series of possibilities, perspectives and, most of all, absences. As a matter of fact, every description seems to have the ultimate goal of foregrounding what is not there. Harvey could have chosen a painting to illustrate the partiality of representation with ekphrastic tones, as well as to show that the theme of multifocal perspective has a continuity that can be traced in more contemporary guises, such as Collins's photo, which eludes us precisely because they are more contemporary. In other words, it could also testify to the flaws of a human perspective that succeeds in apprehending just what is past and historical, while failing to draw the same meaning from the present.

Employing a multi-faceted painting as a frame of reference for the novel reveals that the "literary uncertainty" (Serpell 2008: 223) stemming from various perspectives is as important as narrative uncertainty, which seems to be Harvey's way of accommodating the planetary/global conflict within the limited space of a novel — which, due to its brevity, should rather be defined as a novella. At the end of the story, Pietro comes across Shaun's postcard of Velazquez's painting and glibly provides his point of view in a statement that feels like a revelation in its epiphanic brevity and low-key spontaneity: "It's the dog. […] To answer your wife's question, the subject of the painting is the dog" (Harvey 2024a: 104). The Anthropos-centred perspective of the postcard is turned on its head in a rhetorical torsion that is also narrative, in that the multiple perspectives in the work are presented at the very beginning of the novel, only to be annihilated by an additional point of view towards the end of the story. Thus, the novel itself breaks

down and erases its literary and narrative premises in a gesture that is metafictional as well as profoundly ecocritical.

Such torsion occurs throughout the novel and often on the cue of visual elements, such as the photograph of Chien's mother. Albeit apparently centred on a woman looking at the sky, the photo reveals more possibilities of meaning the more Chien mulls over it and zooms in on its details. Depicting simply her mother looking at the sky as a seagull passes by, the photo carries on its side the caption "Moon Landing Day, 1969". As Chien muses, her mother's expression could be conveying various messages to her, such as warning her daughter against the downsides of 'progress' or the risks of competing with men in a man-centred world. By her own admission, however, of all these possible meanings, Chien chooses "the most ill-formed, the least-credible, and she took it even though it might not have been what her mother meant" (Harvey 2024a: 61), namely: "look at those men landing on the moon, look at what's possible given desire and belief and opportunity, and you have all of those if you want them, if they can do it you can do it, and by *it* I mean anything. Anything" (Harvey 2024a: 61, emphasis in original). Exactly as happens with Velazquez's painting, even though the listing of burgeoning possibilities does nothing but underline the lack of a definite answer and the volatility of arbitrarily imparted meanings, even when the necessity of going through those semantic possibilities is stressed.

2.2. Addressing the Human Dimensions: Waterscapes, Gestation and the Typhoon

After showing Harvey's awareness of the chasm between the planetary and the global, and the way in which she uses *Las Meninas* as a narrative framework to underline the partiality of human perspective, it remains to be asked what other narrative and literary strategies the novel puts forward to adapt perspective to Anthropocene scenarios and climate-change scales. One such solution is the thematic conflation of gestation and space, bringing together microcosm and macrocosm, the act of being born into the world and an extra-terrestrial sphere that opens many more possible worlds. This connection has also been discussed by philosopher Simone Regazzoni in relation to a scene in Kubrick's *2001: A Space Odyssey*, where a cosmic foetus in an amniotic sac faces the surface of the Earth, in an evocative mirroring gesture heightened by the water in the sac and the ocean-shrouded surface of the globe. Numerous elements scattered throughout the plot elicit this association, such as the fact that the astronauts' missions on the ISS last around 9 months, or that the planet Earth is called 'Mother' right before introducing the news of Chien's own mother's death. However, even more noteworthy is Roman's comment that the sensation of *déjà-vu* experienced by

the astronauts during spacewalks "was caused by untapped memories of being in the womb" (Harvey 2024a: 71). Incidentally, this furthers a connection already featured in Harvey's *The Western Wind* (2018), where the "great orb" of the belly of a pregnant woman was compared to "one of those planets up above rolling heavily past" (Harvey 2019: 25).

Akin to the gestation metaphor is the theme of water and waterscapes, introduced by Pietro and Nell's exchange about their scuba-diving experiences and Pietro's friendship with a fisherman: "An astronaut and a fisherman. What a collision of worlds" (Harvey 2024a: 38). A clash is indeed perceptible between outer space and oceans, with Pietro and Nell's enthusiastic comments on the "colour, the creatures, the coral, the sounds" (Harvey 2024a: 57) resembling oceanographer Sylvia Earle's when she stresses the differences between the two dimensions:

> In space, astronauts are alone, aside from human companions who might have come along, and flora and fauna deliberately or inadvertently associated with the spacecraft. In the sea, there is no such thing as 'alone'. Walking along the sea-floor, the abundance and diversity of life is dazzling. Red swimming crabs, small fish illuminated by rows of glowing lights, rays longer than I, hovering like giant butterflies; tall spirals of bamboo coral that shimmer with blue, luminescent fire when I brush against them... (1986: 71)

Thus, it is surprising that Harvey depicts astronauts as "sailors on a ship on a deep, dark unswimmable sea" (Harvey 2024a: 9). Yet the aforementioned association between motherhood and space might bridge the space-sea gap through the fluidity of the amniotic sac and its fluid potential for life. As Regazzoni points out, in ancient Greek the word *kuma* has the double meaning of "wave" and "foetus", and is linked to the verb *kuein*, which means "to be pregnant" (2022: 174). Involving gestation, space and water, the transformation which the six astronauts undergo in space is a slow process of attuning bodies to an alien environment which makes their legs shrink, affects their hearts and impairs their cells. This transformation is similar to that discussed by Morin, who stresses how metamorphosis is common in the animal world but affects human beings, too, since they are aquatic creatures in the motherly womb and become terrestrial when they are born (Morin 2016).

The pressing issue of the climate crisis, which one would expect to play a prominent role in a novel set in space and concerned with the astronauts' view of their home planet from the outside, surfaces from casual remarks made by the characters, usually in relation to their memories. Thus, global warming is evoked by the observation that cicadas do not know when it is time for them to die because of the unseasonally warm weather (Harvey 2024a: 22); rising sea-levels are represented by the ocean getting nearer to Chien's mother's garden (23); weather disruption

is epitomised by Pietro's remark that there is still no rain in Italy even though it is early October (36); and the spectre of fires materialises in the blazing Amazon rainforest (55). Yet all these environmental issues are cast aside by —or possibly culminate in— a massive typhoon that ravages the Philippines and not only plays a role in the story, but it also seems to be a narrative strategy to bridge the distance between Chronos and Kairos.

Many ecocritical reflections have been spurred by the partiality of perspective in the Anthropocene — that of humans and, therefore, also of literature. Oftentimes, a way of carrying out ecocritical enquiries has been to choose a single moment as an epitome to draw inferences from, in a condensing gesture. For instance, Dobrin suggested identifying the objectiveness of the ocean by "theoretically freezing the moment of perception and analysis in a snapshot glimpse in time and scale" (2021: 148); whereas Cooppan chose to read the fluidity and circulatory nature of the Indian Ocean through a case study which can turn into "an anchor, a point where various methodological currents can be momentarily stilled into one line of inquiry" (2022: 172). On similar grounds, Timothy Clark has rejected the emphasis on ecocriticism's early focus on the local, which "may in fact be only a freeze-frame version of a dynamic, long-term process" (2019: 39). The same 'freezing gesture' is attempted in *Orbital* through its brevity, its few characters and the focus on their thoughts and memories. Thus, the novel eschews an exclusive focus on the dimension of the local through the intersection of planetary scales and temporalities with human measurements. It thus effects a combination of micro- and macro-perspectives that coalesce around frozen moments, thereby bringing about a similar narrative effect to that discussed by Timothy Morton with respect to a passage by Homer: "In the *Iliad* the final battle freezes for many lines while the narrator admires depictions of non-martial life on Achilles' shield. It gets us stoned (petrified), transporting us out of a narrative to linger on a frozen image, like 'Bullet Time' in *The Matrix*" (2011: 170).

Indeed, such frozen temporality opening onto scalar levels but producing extremely situated effects is embodied by the typhoon that ravages the Philippines and which the astronauts are told to capture in photographs from their unique location on the ISS. Nonetheless, pinning down the condensed elementality of the typhoon proves to be an evanescent and ultimately unfeasible action: "their long lenses against the glass, shutters stuttering, seeing only the eastern arm of the storm so far, off to starboard where it wraps itself against the earth's horizon in flocks of spun grey" (Harvey 2024a: 23). Just one part of it at a time can be captured, in an apparently objective depiction that is never comprehensive. As J.M. Coetzee muses in *Age of Iron*, pictures are not about what they show: "No longer does the picture show who were in the garden frame that day, but who were not there" (2018: 111).

However, the essentialising drive of Harvey's novel turns narrative elements not into symbols, but rather situating samples for wider reflections, in a way that lends support to the comparison between her and Virginia Woolf (Wood 2015), whose *Mrs Dalloway* she read twice (Harvey 2024b). While the characters are proxies for humankind and the planet epitomises home, the typhoon that strikes the Philippines becomes the narrative catalyst of climate change, literally the umbilical cord that unites the astronauts and the Earth, the global and the planetary, the terrestrial and the 'improbable' as intended by Amitav Ghosh. As the storm develops and picks up strength, the descriptions of the typhoon vary, and one of the most interesting compares the natural disaster to an expression on the planet's face: "It doesn't look from here anything like anger. More like defiance, strength, vivacity, the bulge-eyed tongue-out warrior face worn in the *haka*" (Harvey 2024a: 56, emphasis in original). Therefore, the typhoon might also become an "expression" of the planet's "narrative agency" — involving vitality and creativity as discussed by Oppermann (2014: 30). In the face of the typhoon and the planetary forces expressed by it, the frailty of the human body in space is portrayed through the evocation of the long-standing simile/metaphor of the leaf (Harvey 2024a: 21), which counts among its oldest proponents Homer in the *Iliad* —"The generation of men is just like that of leaves" (Homer 1987: 96)— and, in the youth-related image of the "leaves which the flowery season of spring brings forth", Mimnermus (1999: 83).

2.3. The Different Temporalities of the Globe and the Planet

The typhoon lays bare the clash between the global and the planetary as outlined by Chakrabarty, in a way that is redolent of W.J.T. Mitchell's analysis of the different words used to refer to the world. The first two words the scholar examines are precisely 'globe' and 'planet'. One of the meanings of globe, argues Mitchell, indicates a geometric and measurable construction in terms of physical space or quantities that can be mapped or calculated, including geographical regions, topographies and routes (2015: 95). Thus, the globe is a 'construction' designed for calculations, measurements and borders. On the other hand, the term 'planet' comes from the ancient Greek term used to indicate wandering stars and planets as opposed to fixed stars (97). According to Mitchell, when the globe is observed within the wider frame of reference of astronomy, it becomes "the wanderer through space" and "'a grain of sand' or a fragile island in the Sea of Time and Space" (97), radically re-framed. In *Orbital*, Mitchell's distinction between globe and planet, as well as Chakrabarty's theory of the global and the planetary, become invested with relevant ecocritical potential in passages where human and Earth times are disentangled. For instance, Harvey highlights the inevitable disconnection between the rhythm of the seasons and the passing of time on the

ISS: "now it's spring and in half an hour it's autumn and your body clock's blitzed and your senses have slowed" (Harvey 2024a: 66).

Yet the culmination is reached in the chapter "Orbit 13", when the whole history of the Earth is related from the Big Bang to the present day in a single cosmic year, in whose timeline the emergence of humankind happens just half a day before midnight on 31 December. Interestingly, while the deep history of the planet is narrated according to a precise chronological order that sees bacterial life coming before the atmosphere and the dinosaurs, the closing second of the cosmic year becomes chaotic, and any order of succession is inverted in a dizzying, jumbled-up list — the ultimate "Latour litany": "Kosovo, teabags, W.B. Yeats, dark matter, jeans, the stock exchange, the Arab Spring, Virginia Woolf, Alberto Giacometti, Usain Bolt, Johnny Cash" (Harvey 2024a: 113). While it is true that the description of the closing second lasts a good third of the description of the whole cosmic year, the lack of chronological order could underline its ultimate insignificance, in that mankind can lay claim to only the tiniest fragment of deep history. Hence, the difference between Chronos, "the extensive time of mere succession" (Szerszynski 2015: 178), and Kairos, "the intensive time of singularities and qualities" (Szerszynski 2015: 178).

It is exactly this chasm that causes the idea of home to cave in under its sheer size and temporal coordinates, to the point that it "has imploded — grown so big, so distended and full, that it's caved in on itself" (Harvey 2024a: 12). The use of a typhoon as a material bond between space and Earth, the astronauts and the other humans, as the link between local and global, small and big, allows the novel to force the narrative structure to accommodate temporalities and scales that do not belong to humans, and to encompass both the planetary and the terrestriality of the global. Therefore, the extraordinariness and narrative meaning of the Category Five typhoon in Harvey's novel is reminiscent of the tornado "twisting like a whiplash" (Ghosh 2020: 272) that approaches some characters in Amitav Ghosh's *Gun Island*, an experience based on Ghosh's close call with a tornado in Delhi, which passed right over him: "What would I make of such a scene were I to come across it in a novel written by someone else? […] Surely only a writer whose imaginative resources were utterly depleted would fall back on a situation of such extreme improbability?" (Ghosh 2017: 16).

In the Anthropocene —an era which "will be defined precisely by events that appear, by our current standards of normalcy, highly improbable" (Ghosh 2017: 24)— Ghosh's reflections on the limits of the realist novel and the necessity to adapt the novel form to embrace the improbable and the eclectic are echoed by Harvey's musings on the "elastic form of the novel" (Harvey 2023). Elastic, indeed, is the ending of the novel, which juxtaposes a scene taking place on the

Earth, in the extremely situated context of the Philippines —where a group of people have sought shelter from the typhoon in a church and are hoping that its walls will withstand the pressure of the floods— and another set in outer space, which vibrates with music and light thrown forth not just by planet Earth, but by a myriad of planets and stars: "Its light is an ensemble of a trillion things which rally and unify for a few short moments before falling back into the rin-tin-tin and jumbled tumbling of static galactic woodwind rainforest trance of a wild and lilting world" (Harvey 2024a: 136). It is in this ending that Mitchell's globe begins to wander in space as a single dot and morphs into a planet.

3. Conclusion: The Planet and the Novel

Samantha Harvey specified that, although the astronauts are the heartbeat of the novel, they are not the lens of the novel, but just part of the whole image (Harvey 2023). As a matter of fact, far from being an objective filter, the human perspective and sensorium appear variable, giving back a different image of the earth and the surrounding environment depending on their positioning and level of attention. While reflecting on the different conceptions of the planet that Nell and Shaun have —nature-created vs artist-created, where the artist is God— Nell recalls a stroll in a wood she had taken as a child with her father: "there was a full-size tree that they almost walked straight past until they realised it was man-made, it was a sculpture made from tens of thousands of sticks glued together, woven to form the appearance of knots and bark and boles and branches" (Harvey 2024a: 45). In this passage, as in the scene of Trimalchio's illusion-riddled feast in Petronius's *Satyricon*, nature is broken down to its components and then reassembled to look like its original shape, in a knowledge heightened by the disassembling and the re-assembling process:

> We seized our spoons […] and cracked the eggs which were made of creamy grain. I was almost about to throw away my portion, thinking a peachick had already formed, when I heard a veteran diner say: 'This is bound to hold something good', and poking my finger through the grain I found a most juicy ortolan rolled up in spiced egg-yolk. (Petronius 2018: 31)

It thus happens that this reassembled natural materiality becomes a long-standing simulacrum of nature that tricks Nell's senses as it did Trimalchio's guests, who sink their teeth into a confection that only imitates peahens' eggs and rather combines spiced yolk, creamy grain and ortolan birds to underline the fineness of Trimalchio's taste and his wealth. Yet the opposite situating process also gains meaning in the Anthropocene, namely when agency-filled nonhuman subjects are overlooked and then noticed with a start the moment they manifest their vitality.

This reversed perspective is evoked at the beginning of a short essay by Jeffrey Jerome Cohen with words that bring to mind Amitav Ghosh's in the very first chapter of *The Great Derangement*, thereby showing that the surprising quality of vitality is a common theme among ecocritical scholars and writers:

> A rock jumps. Every hiker has had the experience. The quiet woods or sweep of desert is empty and still when a snake that seemed a twig writhes, a skink that was bark scurries, leaves wriggle with insectile activity. This world coming to animal life reveals the elemental vibrancy already within green pine, arid sand, vagrant mist, and plodding hiker alike. (Cohen 2014: ix)

Mistaking reassembled natural elements for nature and mistaking matter's vitality for inertness are two perceptual mistakes that alert us to the fallibility of human perspective when it comes to understanding the world, even when that perspective is the only one accessible to humans. Both processes are at work in the novel, when object Earth is broken down into a myriad of different meanings for the astronauts and releases a multitude of memories. Hence, it becomes difficult to reassemble a neat image of the planet and what it becomes for humans in the Anthropocene. At the same time, the notion of an inert planet lacking agency is undermined by the vitality of the globe, which also finds expression through the typhoon.

After breaking down the narrative elements and literary topics in *Orbital* and attempting to reassemble them in a cohesive single structure, one notices that figuring out what the novel ultimately represents is elusive. Harvey's text presents a multiplicity of perspectives and none in particular, thereby effecting at the metanarrative level the same de-centring process of Velazquez's painting, Collins's photo and the photo of Chien's mother. Even pinning down the representation of the six astronauts proves harder than expected. Indeed, they are simultaneously conduits for the whole of humanity, for different peoples, for varied human and historical backgrounds; they are portrayed as a single body, as a family and even as a single collective being (Harris 2023) — all of which does nothing but further the novel's wider reflection on scale. As for the planet, the Earth is alternatively described as a colourful ensemble of lights and a seamless space divided by man-made borders; its desertedness hinting at its prehistorical appearance is soon discarded by the acknowledgement that politics is shaping its surface. The planet seems uninhabited by day and, at night, thriving with life suggested by artificial lighting: among it, the "lights of fishing boats off the coast of Malaysia" (Harvey 2024a: 40) that mirror the lighting from illegal fishing in the Bay of Bengal whose glow can be seen from outer space (Ghosh and Lobo 2017). The novel is about numerous topics —the ambivalence of human progress, the moon landing, the passing of time, the transience of life, the bodily metamorphosis induced by space— and about none in particular, as exemplified

not only by the trope of the dizzying *mise en abyme* in Velazquez's painting, but by the ending, which displays, in scalar fashion, a group of people in the typhoon-struck Philippines, the astronauts on the ISS and a cosmic harmony. Thus, three perspectives —the global, the human-centred and the planetary— are evoked in quick succession and reconciled only in the awareness of their irreconcilability.

Harvey has described her novel as "nature writing about the beauty of space" (Harvey 2023), which duly positions it within the latest ecocritical production. Picking up Amitav Ghosh's challenge to accommodate climate change and the Anthropocene in the narrative form of the novel, *Orbital* belongs to a series of recent ecocritical attempts at reconciling deep time and human time, alongside Ghosh's own *Gun Island* (2019) and Shubhangi Swarup's *Latitudes of Longing* (2018). When aligned with material ecocriticism, the novel and its narrative strategies bring new life to narratological debates and questions of literary framing of climate change — a path already laid in the 1990s (Clark 2023: 190-191). This debate has been recently rejuvenated by Timothy Morton's observation of the affinity between the relationality intrinsic to poetry and the relationships between things as and in figurative language that ecocriticism explores (2014: 269), and Hubert Zapf's discussion on the device of the metaphor as a link between biosemiotics, biology and literature (2014: 53). As I have tried to demonstrate, the novel responds to the challenge of adapting narratives to the varying scales of the Anthropocene through devices including a fluid ekphrastic framework that destabilises the unambiguity of human perspective, a connection between gestation and space and the employment of a typhoon observed from space as a bond between the situated experience of humans on Earth, the astronauts on the ISS and climate change. Addressing Chakrabarty's distinction between global and planetary, the novel could be seen as an example of a planetary turn in ecocriticism, which, paired with material ecocriticism, would represent another stage of its decentralising movement from the anthropoi to the nonhuman, from land-locked perspectives to ocean-centred analyses, from sentient life to the value of storied matter.

Notes

1. Here, the 'green turn' refers to the increasing development of reflections on ecocritical themes in the humanities and other disciplines; similarly, the 'blue turn' can be construed as the recent developments of blue ecocriticism, a branch concerned with bodies of fresh and saltwater, and their effects on literature and the humanities.

Works Cited

Bennett, Jane. 2010. *Vibrant Matter: A Political Ecology of Things*. Duke U.P.

Bonneuil, Christophe. 2015. "The Geological Turn: Narratives of the Anthropocene". In Hamilton, Clive, Christophe Bonneuil and François Gemenne (eds.): 17-31.

Chakrabarty, Dipesh. 2015. "The Anthropocene and the Convergence of Histories". In Hamilton, Clive, Christophe Bonneuil and François Gemenne (eds.): 44-56.

Chakrabarty, Dipesh. 2021. *The Climate of History in a Planetary Age*. The University of Chicago Press.

Clark, Timothy. 2008. "Towards a Deconstructive Environmental Criticism". *Oxford Literary Review* 30 (1): 45-68. <https://www.jstor.org/stable/44030769>.

Clark, Timothy. 2019. *The Value of Ecocriticism*. Cambridge U.P.

Clark, Timothy. 2023. *Ecocriticism on the Edge: The Anthropocene as a Threshold Concept*. Bloomsbury Academic.

Coetzee, J.M. 2018. *Age of Iron*. Penguin.

Cohen, Jeffrey Jerome. 2014. "Foreword: *Storied Matter*". In Iovino, Serenella and Serpil Oppermann (eds.) *Material Ecocriticism*. Indiana U.P.: ix-xii.

Cooppan, Vilashini. 2022. "Object Orientations and Circulatory Form in Abdulrazak Gurnah's *By the Sea*". *Comparative Literature* 74 (2): 171-185. <https://doi.org/10.1215/00104124-9594813>.

Dobrin, Sidney I. 2021. *Blue Ecocriticism and the Oceanic Imperative*. Routledge.

Earle, Sylvia A. 1986. "Sea and Space: Frontiers for Exploration - An Introduction". *Journal of the Washington Academy of Sciences* 76 (1): 68-72. <https://www.jstor.org/stable/24536631>.

Ferris, Joshua. 2023. "It's Harder to See the World's Problems From 250 Miles Up". *The New York Times* (December 5). <https://www.nytimes.com/2023/12/05/books/review/orbital-samantha-harvey.html>. Accessed October 24, 2024.

Foucault, Michel. 2007. *The Order of Things*. Routledge.

Ghosh, Amitav. 2017. *The Great Derangement: Climate Change and the Unthinkable*. Chicago U.P.

Ghosh, Amitav. 2020. *Gun Island*. John Murray.

Ghosh, Amitav and Aaron Savio Lobo. 2017. "Bay of Bengal: Depleted Fish Stocks and Huge Dead Zone Signal Tipping Point". *The Guardian* (January 31). <https://www.theguardian.com/environment/2017/jan/31/bay-bengal-depleted-fish-stocks-pollution-climate-change-migration>. Accessed October 24, 2024.

Gurnah, Abdulrazak. (1990) 2021. *Dottie*. Bloomsbury.

Gurnah, Abdulrazak. 2011a. "The Urge to Nowhere: Wicomb and Cosmopolitanism". *Safundi: The Journal of South African and American Studies* 12 (3-4): 261-275. <https://doi.org/10.1080/17533171.2011.586828>.

Gurnah, Abdulrazak. 2011b. "Mid Morning Moon". *Wasafiri* 26 (2): 25-29.

Hamilton, Clive, Christophe Bonneuil and François Gemenne. (eds.) 2015. *The Anthropocene and the Global Environmental Crisis: Rethinking Modernity in a New Epoch*. Routledge.

Harris, Alexandra. 2023. "Orbital by Samantha Harvey Review - The Astronaut's View". *The Guardian* (November 16). <https://www.theguardian.com/books/2023/nov/16/orbital-by-samantha-harvey-review-the-astronauts-view>. Accessed October 24, 2024.

Harvey, Samantha. 2019. *The Western Wind*. Vintage.

Harvey, Samantha. 2023. "Samantha Harvey: 'I Like Alien as Much as Anybody Else. But I See this Novel as Space Pastoral'". Interview by Anthony Cummins. *The Guardian* (October 28). <https://www.theguardian.com/books/2023/oct/28/samantha-harvey-orbital-i-like-alien-as-much-as-anybody-else-but-i-see-this-novel-as-space-pastoral>. Accessed October 24, 2024.

Harvey, Samantha. 2024a. *Orbital*. Vintage.

Harvey, Samantha. 2024b. "Samantha Harvey Interview: 'I Wanted to Write a Space Pastoral'". *The Booker Prizes* (August 15). <https://thebookerprizes.com/the-booker-library/features/samantha-harvey-interview-orbital>. Accessed October 24, 2024.

Hofmeyr, Isabel. 2010. "Universalizing the Indian Ocean". *PMLA* 125 (3): 721-729. <https://www.jstor.org/stable/25704470>.

Homer. 1987. *The Iliad*. Trans. M. Hammond. Penguin Books.

Iovino, Serenella. 2012. "Stories from the Thick of Things: Introducing Material Ecocriticism". *Interdisciplinary Studies in Literature and Environment* 19 (3): 449-460. <https://www.jstor.org/stable/44087130>.

Iovino, Serenella and Serpil Oppermann. 2014a. "Introduction: *Stories Come to Matter*". In Iovino, Serenella and Serpil Oppermann (eds.): 1-17.

Iovino, Serenella and Serpil Oppermann. (eds.) 2014b. *Material Ecocriticism*. Indiana U.P.

Mimnermus. 1999. "Fragments". In Gerber, Douglas E. (ed. and transl.) *Greek Elegiac Poetry: From the Seventh to the Fifth Centuries BC*. Harvard U.P.: 83.

Mitchell, W.J.T. 2015. *Image Science: Iconology, Visual Culture and Media Aesthetics*. The University of Chicago Press.

Morin, Edgar. 2016. "'Metamorfosi' - Intervista a Edgar Morin". Fondazione MessinA. *YouTube* (October 3). <https://www.youtube.com/watch?v=RSalvi22BE4&t=732s>. Accessed October 24, 2024.

Morton, Timothy. 2011. "Here Comes Everything: The Promise of Object-Oriented Ontology". *Qui Parle* 19 (2): 163-190. <https://muse.jhu.edu/article/431001>.

Morton, Timothy. 2014. "The Liminal Space between Things: *Epiphany and the Physical*". In Iovino, Serenella and Serpil Oppermann (eds.): 269-279.

Newns, Lucinda. 2020. *Domestic Intersections in Contemporary Migration Fiction: Homing the Metropole*. Routledge.

Northcott, Michael. 2015. "Eschatology in the Anthropocene: From the *Chronos* of Deep Time to the *Kairos* of the Age of Humans". In Hamilton, Clive, Christophe Bonneuil and François Gemenne (eds.): 100-111.

Oppermann, Serpil. 2014. "From Ecological Postmodernism to Material Ecocriticism: *Creative Materiality and Narrative Agency*". In Iovino, Serenella and Serpil Oppermann (eds.): 21-36.

Oruc, Firat. 2022. "Thalassological Worldmaking and Literary Circularities in the Indian Ocean". *Comparative Literature* 74 (2): 147-155. <https://doi.org/10.1215/00104124-9594787>.

Petronius. 2018. *The Satyricon*. Trans. A.S. Kline. Poetry in Translation.

Plumwood, Val. 2006. "The Concept of a Cultural Landscape: Nature, Culture and Agency in the Land". *Ethics and the Environment* 11 (2): 115-150. <https://www.jstor.org/stable/40339126>.

Popkin, Gabriel. 2017. "Cure Yourself of Tree Blindness". *The New York Times* (August 26). <https://www.nytimes.com/2017/08/26/opinion/sunday/cure-yourself-of-tree-blindness.html>. Accessed October 24, 2024.

Regazzoni, Simone. 2022. *Oceano: Filosofia del pianeta*. Ponte alle Grazie.

Serpell, Namwali C. 2008. "Mutual Exclusion, Oscillation, and Ethical Projection in *The Crying of Lot 49* and *The Turn of the Screw*". *Narrative* 16 (3): 223-255. <https://www.jstor.org/stable/30219606>.

Szerszynski, Bronislaw. 2015. "Commission on Planetary Ages Decision CC87966424/49: The Onomatophore of the Anthropocene". In Hamilton, Clive, Christophe Bonneuil and François Gemenne (eds.): 177-183.

Trexler, Adam. 2015. *Anthropocene Fictions: The Novel in a Time of Climate Change*. University of Virginia Press.

Wood, Gaby. 2015. "Why Great Novels Don't Get Noticed Now". *The Telegraph* (March 14). <https://www.telegraph.co.uk/culture/books/booknews/11470185/Why-great-novels-dont-get-noticed-now.html>. Accessed October 24, 2024.

Zapf, Huber. 2014. "Creative Matter and Creative Mind: *Cultural Ecology and Literary Creativity*". In Iovino, Serenella and Serpil Oppermann (eds.): 51-66.

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