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Between Eco-Anxiety and Solastalgia: Aspirational and Exiled Astronaut Eco-Imaginaries

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ABSTRACT

Although space travel is not often discussed in relation to the environmental crisis, it is proposed here that how the core agent of space travel, namely the astronaut, is imagined is of cardinal importance to environmental issues. Two astronaut types are identified in the analysis: the aspirational astronaut planning to escape Earth out of a looming sense of eco-anxiety amidst increasing signs of ecological disaster; and the exiled astronaut who experiences overwhelming environmental distress or solastalgia as home becomes stranger every day. The selected images of astronauts are interpreted as eco-imaginaries that embody a particular disposition in terms of their geo-locality and climate changes. The aspirational astronaut is explored by a brief slice into two film depictions, namely Approaching the Unknown (Mark Elijah Rosenburg, 2016) and Ad Astra (James Gray, 2019). The exiled astronaut originates from sub-Saharan Africa through the filmed performance work of the Kinshasha-based duo Michel Ekeba and Eléonore Hellio, working as the Kongo Astronauts (2021–2022), and an eco-film by Maisha Maene, entitled Mulika (2022). It is proposed that the diverging eco-imaginaries are products of where one places Earth in climate debates.

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Introduction

Space travel is not often discussed in debates related to the environmental crisis, even though there is a correlation between the ecological footprint and motivation for space traveling and ecological disasters (Klinger, 2021; Launius, 2011; McQuaid, 2010). This paper explores the core agent of space travel, namely the astronaut, through selected film examples stretching roughly from 2016 to 2022. It is argued that how the astronaut is imagined provides pertinent viewpoints about where we stand regarding place and the Earth. The analysis identifies two astronaut types: the aspirational astronaut planning to escape Earth out of a looming sense of eco-anxiety amidst increasing signs of ecological disaster; and the exiled astronaut who experiences overwhelming environmental distress or solastalgia as home becomes stranger every day. The selected astronaut types are interpreted as eco-imaginaries that embody a particular disposition regarding their geo-locality and climate change.

The aspirational astronaut is explored by a brief slice into two Hollywood films, namely Approaching the Unknown (Mark Elijah Rosenburg, 2016) and Ad Astra (James Gray, 2019). The exiled astronaut originates from sub-Saharan Africa through eco-films of the Kinshasha-based duo Michel Ekeba and Eléonore Hellio, working as the Kongo Astronauts (2013-2022), and the

eco-film by Congolese artist Maisha Maene, entitled *Mulika* (2022).¹ Evidently, the eco stories about eco-anxiety are primarily portrayed in films from the global North, and the images of solastalgia originate from Africa, thus the global South. Naturally, this is an over-simplification, which will not hold in all cases, but it does suggest trends regarding responses to the Anthropocene from different locations.

The African eco-films highlighted here make visible the tendency to view "Africa as a marginal space, a 'sacrifice zone,' so to speak, upon which the detritus of late capitalist modernity might be offloaded" (Krishnan, 2019, pp. 291–292). The ecological crisis in Africa remains primarily unseen, and this urged Omelsky (2014) to identify the African Anthropocene as the unique form that the environmental crisis has taken in Africa. However, the analysis of the eco-imaginaries does not aim to offer a "continental essentialism," as Hecht (2018, p. 112) notes. Neither does the analysis aim "to identify the characteristics of an 'African' Anthropocene in clear distinction to an 'Asian' or a 'European' one" (Hecht, 2018, p. 112). Instead, "[it is to seek] a means of holding the planet and a place on the planet on the same analytic plane" (Hecht, 2018, p. 112). In other words, Africa is both a point of departure and an entry into the much-needed conversation about place and Earth in contemporary eco-imaginaries.

Not only do the opposing eco-imaginaries represent divergent perspectives of where humanity stands in terms of Earth, but the two Hollywood films have a broader audience and distribution reach than the smaller African film projects that primarily circulate in art exhibitions and film festivals.² The Kongo Astronauts have participated in festivals such as the Cité Internationale des Arts (2021) and the Kinshasa's Yango Biennale (2022). *Mulika*, screened at several film festivals, was officially selected for inclusion in 2023 at the Sundance and Clermont-Ferrand film festivals. Maene's eco-film also received awards at the Locarno and Dresden Short film festivals in 2022. Therefore, despite their success measured in artistic terms, the African film projects cannot compete with the reach of the two Hollywood films selected here for investigation. In other words, images are not equal in terms of their reach, distribution and reception.

Similarly, images have not received the same attention in environmental communication as "rhetorical analysis and verbal framing of controversial issues" (Krause & Bucy, 2018, p. 324). Nevertheless, increasing scholarship acknowledges the power of images to evoke affective responses and to change attitudes. In fact, images may even have agenda-setting implications, such as the recent BBC documentary, *The Blue Planet*, which raised awareness about plastic pollution (Males & Van Aelst, 2021). Images are potent guides to our imagination(s) because "[n]ew imaginaries have material consequences, informing policy, practice, and investment choices" (Klinger, 2021, p. 8). Klinger's observation shows explicitly how "the environmental geopolitics of outer space" (2021, p. 2) impacts Earth. It would then be detrimental to ignore the messages these "new imaginaries" or eco-imaginaries convey as they inform and direct ideas and politics about Earth. Against this setting, it is proposed that the image of the astronaut acts as a predictor or "futuristic image" (Mitchell, 2009, p. 135) that highlights different views about Earth and climate change.

In the following discussion, however, the images are placed next to each other and evaluated as being equally able to communicate or channel our imaginations. The images are explored and compared through a hermeneutical and iconological lens by asking the following questions: (1) how is the astronaut's relationship with place (and Earth by implication) depicted in the selected films?; (2) how do affective responses such as eco-anxiety and solastalgia figure in the portrayal of the astronauts?; and (3) what interpretations and meanings are communicated about contemporary imaginations about place and Earth?

By means of an introductory example, Earth is often depicted in recent popular images as aflame, combusting, becoming inhospitable, and turning into an unknown place altogether (Figure 1). This is corroborated by publications such as Bill McKibben's *Eaarth: Making a Life on a Tough New Planet* (2010) and David Wallace-Wells's *The Uninhabitable Earth: Life After Warming* (2019). In comparison, Mars is frequently depicted as an adventure, a mystery, an enticing new planet to colonize.



Figure 1. Burning Globe Earth (west hemisphere), by Boris Ryaposov. Source: Adobe Stock.

Earth is old news, while Mars is trending. For instance, the founder of The Mars Generation, Abigail Harrison, also known as "Astronaut Abby," promotes Mars as "cool" and encourages her audience "to dream big and reach for the stars" on her YouTube channel Astronaut Abby (2018–2020). A young participant in *The Mars Generation* (Michael Barnett, 2017) documentary exclaims: "Exploration is ingrained in our DNA." While another proposes, "We have to get off this planet and land on Mars."

As Earth is going through an apocalypse, it seems as if a catastrophic event has already occurred on Mars. If one compares the images, it looks as if Mars, scorched and barren, is post-apocalyptic (Figure 2). The visual logic suggests that it is better to escape the fiery Earth and exchange it for a planet that has already evolved beyond the apocalypse (cf. Du Preez, 2021). In terms of affects, Mars

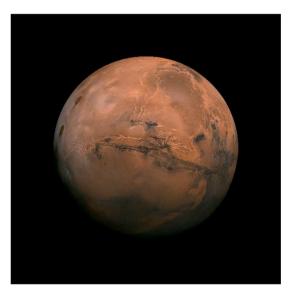


Figure 2. Valles Marineris: The Grand Canyon of Mars. Image Credit: NASA.

entices with novelty, curiosity, and excitement because outer space is "a metaphor for expansiveness, opportunity, and freedom" (Busto & Iwamura, 2022, pp. 418-419). On the other hand, images of Earth ablaze provoke despair, fear, loss and estrangement, but perhaps also care and awe. These diverging affective responses to the climate crisis capture the essence of what is proposed here, namely the aspirational astronaut who takes the plunge into the adventure beyond Earth to avoid the extinction event. In contrast, the other, the exiled astronaut, acknowledges that our existence is intricately interweaved with Earth. One believes it is amidst the stars where our future will be made, while the other confirms an ontological relatedness to land, place, and the Earth.

Eco-imaginaries

Eco-imaginaries direct us to how the ecology and environment are imagined and represented in images and ideas. As the renowned image scholar W.J.T. Mitchell (2009) specifies, the image (and imagination) acts like an "omen of futurity" (p. 133) that connects past, present, and future worlds. For Mitchell, images "not only 'have' a future related to technology and social change, but are the future seen through a glass darkly" (2009, p. 140). In other words, they act as a prism or crystal ball to predict and imagine future events. He urges us to take the image seriously not only because it is "both a copy, a reproduction" but, very importantly, because an image is "itself a living thing" (2009, p. 137, my emphasis). The image has a life in the present just as it opens to the future using forecast and omen, most notably by producing the future (2009, p. 144). Images provide a glimpse, an insight, and because our ideas correspond with the imagination, what we imagine today starts participating in the future. Prigogine (2014) summarizes the predicament as follows: "What we do today depends on our image of the future rather than the future depending on what we do today" (p. 5).

The image prism developed here is the astronaut constellation, interpreted as both a representation of lived reality in the form of solastalgia and an imagined future borne from eco-anxiety to escape the dreaded eco-disaster. Closer defined toward the African context and the African Anthropocene (Omelsky, 2014), the constellation of astronaut images explored here links to Cajetan Iheka's call in African Ecomedia (2021) for an African ecology of images and an investigation into images of ecology.

Therefore, the relationship between place (Earth), imagination, and environmental attitudes is stressed in the discussion (Adams & Gynnild, 2013; Gislason et al., 2021; O'Byrne & Endres, 2021) In terms of place and affects, it is the "where" from which the responses of solastalgia and eco-anxiety come that are vital. What type of imaginary constellation is at work when positioning Earth as either a "providential imaginary" or a "non-providential imaginary" (Smith & Young, 2022)? In the case of providence, Earth is imagined as a provider, whereas in the non-providential case, the Earth stands indifferent; it is interpreted as a non-anthropogenic system that could not care less about humans (Smith & Young, 2022). Provident imagery abounds from Africa, such as the recent African Literature, Mother Earth and Religion (2022) by Gudhlanga et al., as well as Ogude's (2022) referencing of the ontological value attributed to land in Ngũgĩ wa Thiong'o's literature (2022, para. 6). Ogude calls for a re-imagination of the relationship between human and environment through a "poetics of regeneration and aesthetics of the earth - of renewal and possibilities for a better environment" (2022, para. 3).

Perhaps one of the most suitable eco-imaginaries to explain the importance of place is provided in It All Turns on Affection (2012), by the environmental activist and novelist Wendell Berry when he distinguishes between "boomers" and "stickers." The distinction also applies here, as Berry describes the boomer as someone who "is motivated by greed, the desire for money, property, and therefore power," while "[s]tickers on the contrary are motivated by affection, by such love for a place and its life that they want to preserve it and remain in it" (2012, p. 8). It does not require much explanation to see how Berry's boomers and stickers may apply loosely to the distinction made here between the aspirational astronaut set to travel the universe and the

exiled astronaut who is banned to stay in a place that they care for. The sticker does not remain because it is easy or there are no distresses but despite the hardships. Berry describes his grandfather as someone who kept "with the sticker's commitment," precisely because "he neither left behind the damage he had done nor forgot about it, but stayed to repair it, insofar as soil loss can be repaired" (Berry, 2012, p. 9). The urge for upward mobility that drives the boomer can easily be transposed to the astronaut's elevation with the added value of keeping the Earth in reserve while "pillaging in absentia" (Berry, 2012, p. 8). From his agrarian viewpoint, Berry links boomers with imperialism and industrialization. When transposed to the 1969 image of Buzz Aldrin planting of the US flag on the Moon, it can be said that "[Aldrin] reenacted an ancient ritual that declared discovery and therefore possession under the Doctrine of Discovery" (Busto & Iwamura, 2022, pp. 418-419).

Images of astronauts

Although highly recognizable, the astronaut (or star sailor) does not appear in one unified image because distinct eras are identifiable in the history of outer space and astroculture (Geppert, 2012). For instance, there is a discernible difference between the astronaut of the Golden Age of the Space Race dominated by NASA's pilot astronauts and the Soviet Union's cosmonauts, on the one hand, and the astronaut of the new era of private human spaceflight: "Space 2.0" (Pyle, 2019) or rather "Space Race 2.0" (Bergan, 2022). Following the imagination of the earlier "heroic era" (Neufeld, 2013) of human spaceflight, stretching roughly from 1957 to 1986, the astronaut was clad in fantasies of hypermasculinity and pioneering heroism (Hersch, 2011, 2012). Launius describes the NASA astronaut as "embody[ing] the personal qualities in which Americans of that era wanted to believe: bravery, honesty, love of God and country, and family devotion" (2008, p. 177). Similarly, the cosmonaut Yuri Gagarin (1934-1968), the Hero of the Soviet Union, was heralded throughout the USSR as a new type of savior that introduced the world to a pristine era of peace and enlightenment. These early astronauts and cosmonauts were anointed by the public with celebrity status and deemed great national heroes and explorers.

The heroic phase of human spaceflight would end after the Challenger disaster 1986 and introduce the age of more cooperative space missions but also increasing bureaucratization and systematisation. In Inventing the American Astronaut (2012), Matthew Hersch notes that the once heroic spacesuit has become the new grey flannel suit. This means that the heroism previously associated, especially with pilot astronauts, has now dwindled into astronauts increasingly subjected to "the possibility of extended training, tedious administrative duties, thankless engineering work, and diminished authority to continue in their chosen profession" (Hersch, 2012, p. 129). It is the era of the "averagenaut" or "average-person-as-astronaut" that democratizes the reach and participation of NASA's projects (Hersch, 2011, p. 85). Ironically, this has also led to the public opinion that "any national endeavor that a scientist, or an average citizen could perform, could not be that dangerous, or worth doing" (Hersch, 2011, p. 88). In other words, astronauts have become less defined by the heroic imagination but are now more guided by the fantasies of the latest public image-making strategies.

In the contemporary Space 2.0 era, the astronaut will most likely be a thrill seeker or consumer space tourist. The Space Age has morphed into a Space Movement driven by the hypermobile elite ensconced in wealth and Gnostic dreams of post-Earth. In anticipation of the extinction event, they invest venture capital into projects that can guarantee their escape. The space entrepreneur Elon Musk advocates, "there are two fundamental paths for mankind - that we stay on Earth forever, eventually succumbing to an extinction event, or to become a 'space bearing-civilization and a multi-planetary species" (Osborne, 2017).

In the rhetoric, the astronaut becomes the intermediary for their escape plan, either as extreme space tourist, or the designated survivor. The astronaut as a space tourist is not necessarily representative or democratic, though we may be tempted to think so. As Douglas Spencer states:

"However much they may be dressed up in the language of the pioneer spirit, the notion that a frontier [offshore colony] is being advanced for anyone but the superrich is obviously fanciful" (2019, p. 170). At the contemporary juncture, the astronaut represents the faceless future of a consumerist post-humanity. Elon Musk's dummy Starman, looping infinitely in a red Tesla in space, is perhaps the best personification of this space tourism.

In contrast to the SpaceX's Starman, the astronaut image portrayed in and from Africa provides a unique interpretation because it views the astronaut through the African Anthropocene. The examples explored here thus take the astronaut, usually a Westernized heroic "hyper-individualism and enmeshes it within an environment" (Wright, 2019, p. 143). Although Wright observes this in the context of re-interpreting the vampire figure in the African context, it fits the image of the astronaut that is similarly "ecologized" (2019, p. 143). What ecologise means is not simply that the astronaut has become natural or environmental, but rather the ecologised astronaut can be understood as "an interconnectedness or enmeshment that precedes the individual subject" (Wright, 2019, p. 144).

Between eco-anxiety and solastalgia

Although closely related, for the sake of the argument, eco-anxiety and solastalgia are treated as distinct affective responses. Eco-anxiety is described as "a special type of stress and worry, which is related to the ecological crisis, and can be interpreted in the framework of existential and psychodynamic psychology as well as social sciences" (pp. 1-2). In turn, Ágoston et al. (2022) identify solastalgia as

a concept akin to eco-grief; it describes the anguish or despair we feel when we realize that the place we live in and love is chronically deteriorating, and the comfort - or solace - we derive from the current state of our home environment is gradually disappearing. (p. 2)

The two reactions to the climate crisis can be further broken down into the difference between anxiety (eco-anxiety) and distress (solastalgia).

Perhaps the most critical distinction is that an external trigger usually causes distress and may be short-term, while anxiety is "defined by persistent, excessive worries that don't go away even in the absence of a stressor" (APA, 2019). Anxiety, therefore, manifests as an internalized discomfort, even when the stressor disappears. In fact:

Anxiety causes feelings of dread and fear of things that haven't happened or don't exist. [Distress] is a response to something happening or a pressure you feel. Anxiety can be completely internal and not a reaction to anything that exists in reality [...] you may feel a general sense of apprehension, dread, and worry. (Ellis, 2020)

In the case of anxiety, the stressor or cause remains internalized and vague; in the case of distress the stressor is external but actual. The stressor discussed here is obviously the climate crisis, and the responses under review, namely how eco-anxiety and solastalgia, manifest in different eco-imaginary images of astronauts.

Eco-anxiety

As already indicated, anxiety

is a tense unsettling anticipation of a threatening but formless event, a feeling of uneasy suspense. It is a negative affect [...]. When feeling anxious, the person has difficulty identifying the cause of the uneasy tension or the nature of the anticipated event or disaster. The emotion can be puzzling for the person experiencing it. In its purest form, anxiety is diffuse, objectless, unpleasant and persistent. (Rachman & Rachman, 2020, Clinical features and relevant aspects section, my emphasis)

This indicates that anxiety clings like a nagging unease that cannot be clearly identified; it has no definite form. Because anxiety



lacks this localized dimension, and thus assumes an omnipresent hold on the subject, such that the structure of the subject itself is put into doubt. It is precisely this relation between the structure of the subject and its possible dissolution that is peculiar to anxiety. (Trigg, 2016, p. 33)

Furthermore, anxiety is also associated with a trans-formative structure, meaning that it may provide the subject with insight into the nature and structure of existence. Thus, anxiety has an existential dimension.

The existential nature of anxiety is linked with the modern search for meaning or precisely the lack of meaning; therefore, "It is anxiety that emerges from the kaleidoscopic configurations as organizing the Gestalt of modernity" (Koczanowicz, 2020). It means that modernity has been directed and formed by the idea-image of anxiety or what Trigg (2016) identifies a "phenomenology of anxiety." According to Trigg, this anxiety translates into feeling "ill-at-home' in the world, as the world reveals itself to be the site of an irreducible and original strangeness" (2016, p. xxxi). It is this unease and no longer feeling at home in the world that drives anxiety, and eco-anxiety in particular.

Eco-anxiety's direction is toward the future, it is a "future-oriented apprehension," as the disaster is looming but has not yet occurred (Coffey et al., 2021, p. 3). Although the initial reaction may lead to paralysis, it is also noted that these emotions can turn into hope and even motivation to take action. As Oramus (2023) explains, "Feeling apprehensive of a repetition of the calamities we [see] on our screens [...] and suffering eco-anxiety makes us react emotionally to Doomsday Clock Narratives, an event which allows us to face our traumas" ("We," the Readers of Doomsday Clock Narratives).

One Doomsday narrative that aids in facing our traumas is the "salvation narrative" (Launius, 2013, p. 50), according to which traveling into space is inevitable if we want to save our species' future. The anxiety about the Earth's demise and destruction is translated into a narrative about the mythical status of the astronauts who "become like the gods, [able] to transcend the earthly plain and to reach for heaven" (Launius, 2013, p. 58). In this myth that borders on religion, the astronauts and cosmonauts "are the saints and the martyrs of the religion of spaceflight" (Launius, 2013, p. 51).

Solastalgia

Immersed in an estranged world with dramatic ecological changes and complex future predictions, we need new words to understand our new world. Glenn Albrecht in Earth Emotions: New Words for a New World (2019) introduces a few terms for the newly experienced "Earth emotions" or "psychoterratic" responses, of which solastalgia is perhaps the most prevalent. Solastalgia is "the lived experience of distressing, negative environmental change" (Albrecht, 2019, p. x). At the root is the word solace; hence, solastalgia refers to being inconsolable and finding no solace. The cause for the "ongoing loss of solace" is connected "to the present state of one's home and territory" (Albrecht, 2019, p. 38). In fact, Albrecht describes it as powerfully as experiencing "an attack on one's sense of place" (2019, p. 38). The central point of contention is thus lived experience with an environmentally degraded place. What are the significant ecological changes to homes and places causing inhabitants to experience solastalgia? These could be droughts, flooding, deforestation, wildfires, smoke, pollution, extinction of species, mining activities and minerals extraction.

Situated within the broader outlines of the argument, i.e. post-Earth, because "solastalgia is a place-based lived experience" (Galway et al., 2019, p. 2), it is felt as an endemic loss of place. One may even proffer that solastalgia is to feel displaced, unplaced, and even "losing space and time, of having no place" (Ferrarello, 2023). It is not longing for home or feeling homesick while away, as indicated in nostalgia, for instance, but rather "solastalgia is the homesickness you have when you are still located within your home environment" (Albrecht, 2019, p. 39). The stronger the bond with a place and a landscape, the more likely the experience of solastalgia. It is not an urge to return to a pure and untouched place but the realization that the place will not be the



same again. It is the insight that we are participating in a "disappearing world" (Bogard, 2023) and increasingly living in a degraded environment (Cáceres et al., 2022, p. 9).

Solastalgia is thus triggered by external factors that induce a sense of distress and despair (cf. Breth-Petersen et al., 2023) in keeping with the distinction made between eco-anxiety as internalized fear. However, according to Albrecht, solastalgia is not irreversible. It invites grieving and then a call to action. During the grieving process, we realize: "It is both the place and not the place – coming to terms with this lies at the heart of solastalgia" (Bogard, 2023, Introduction section). In response to solastalgia, a new sense of place must be established to overcome the initial loss.

How do eco-anxiety and solastalgia translate into images? It has been established that eco-anxiety is a persistent internalized anxiousness while external forces trigger solastalgia. The task is now to compare how these affects are represented consecutively in the eco-images of aspirational and exiled astronauts.

Eco-anxiety and aspirational astronauts: "out there is where our story is going to be told"

Eco-anxiety often motivates space pioneers to bravely and stoically escape Earth to save humanity. The aspirational astronaut is discussed here by exploring two film depictions: *Approaching the Unknown* (Mark Elijah Rosenburg, 2016) and *Ad Astra* (James Gray, 2019). In both cases, the astronaut is positioned as the one sent on a mission to "save" the Earth and change earthlings' destiny. The ecological position is one of the Earth being depleted or under severe danger of destruction. *Ad Astra* places the Earth amidst space travel to the Moon, Mars and Neptune with relative ease. Earth is also under siege from a bombardment of anti-matter identified as "the Surge" that causes unexplainable power surges and threatens to destroy the entire solar system. *Approaching the Unknown* captures the solo journey of Captain William D. Stanaforth (Mark Strong), cheered on by six billion people on Earth to colonize Mars and to "bring life" to the planet. The planned colonization of Mars can be viewed as an internalized eco-anxiety about the precariousness of life on Earth that warrants multiplanetary invasion.³ Both protagonists are portrayed as aspirational, brave, enduring, and, most importantly, as lone figures.

Ad Astra centers around the character of Maj. Roy McBride (Brad Pitt), following in the footsteps of his legendary pioneering father, Col. Clifford McBride (Tommy Lee Jones), head of the Lima Project in search of alien intelligence. Roy is depicted as someone who "has compartmentalized away nearly all emotions" (Hadadi, 2020), and the suggestion is made that he is thriving as an astronaut pioneer precisely because he is "on the spectrum." He appears courageous and mostly detached in the face of danger, repeating a mantra to confirm his independence: "I will not rely on anyone or anything. I will not be vulnerable to mistakes." His heroic journey is accordingly set out as one of increasing isolation. It is perhaps most evident in the scene that captures Roy and his father in a tug of war, being dwarfed by the planet Neptune with the great cosmic abyss in the background (Figure 3). The image leaves one with the sense that the universe stands unmoved and indifferent to human suffering. The abyss or void is precisely identified as the enemy in outer space as voiced by the character of Thomas Pruitt (Donald Sutherland), "The enemy up here is not a person or a thing, it is the endless void." Therefore, the film provokes an eco-existential question: what is being confronted during space travel? Is it bravery or hubris that drives us to the stars?

In the case of Clifford McBride, it is to contact and find intelligent life outside the knowable universe. Director James Gray responds cynically during an interview that alien intelligent life is "probably so far away we'll never reach them, so then by all intents and purposes, we are alone in the universe. What does that mean for the species? It is, I think, almost a metaphysical question" (Utichi, 2019).



Figure 3. Major Roy McBride untethers his father Captain Clifford McBride. Screenshot from Ad Astra (2019). Directed by James Gray.

When Roy rejoins his father near Neptune, he finds a depraved and broken soul. However, even though Clifford admits that no intelligent consciousness has been found, like an Übermensch, he continues to believe in his human will to propel him forward. Roy tries to console his father after realizing the mission failed: "It's okay dad. You did not fail. Now we know, we are all we've got." Despite his brokenness, Roy, appreciates that the search is not for alien intelligent life "out there" but rather for human connections closer by. In a sense, Roy McBride finds his humanity again in the abyss. This is corroborated by Gray in an interview: "The true terra incognita is the human soul. In order to assess the Earth with any kind of meaning, it basically has to come from us" (in Ehrlich, 2019).

In the case of Approaching the Unknown, initially entitled Ad Inexplorata, ("toward the unexplored" the motto of the US Air Force Flight Test Center), Captain William D. Stanaforth's trajectory similarly moves through heroic stoicism, despair, and newfound hope. The director, Mark Elijah Rosenburg (2016), states that he intended to "create an intimate, intellectual character study of a man who thought he knew what he was doing, thought he was in control, but lost control and was forced to change." Stanaforth sets out on the journey as "a man unencumbered by conventional family attachments, which makes him kind of a natural in the leaving-Earth-behind-for-good department" (Kenny, 2016). Nothing appears to bind him to the Earth, although he has recurrent dreams of Earth and falling. He endures system failures, boredom, severe dehydration, and loneliness, which he all tackles with scientific and engineering rigor. When the mission seems impossible, and he loses contact with Earth, he is overcome by a cathartic experience during a magnetic storm. As all things become unhinged and appear to dissolve into nothingness, Stanaforth realizes the true reason for his mission, namely, to experience one moment of pure wonder. Ignited by this sublime experience, he finally lands on Mars - a reborn man. He sets foot on Mars with these words: "Nothing has ever lived here. Nothing has ever died here. Maybe I'll live forever" (Figure 4). Like Adam in a New Eden, Stanaforth recites his creationist prayer and announces himself immortal.

These eco-imaginaries of aspirational astronauts reveal that while leaving Earth behind is treacherous and puts the astronaut to the ultimate test of bravery, it can be done. This is because the dominant myth that guides this image-idea proclaims that "out there is where our story is going to be told" (Ad Astra, 2019). The myth suggests that remaining on Earth calls for no heroic glory or confrontation with the abyss or the unknown. Since eco-anxiety is linked to an amorphous and nebulous unease about the environment, the fact that the void or the abyss plays such a central part in the narrative of the two films is significant. Both films deal with existential discomfort that does not



Figure 4. Captain William Stanaforth arrives on the pristine Mars landscape. Screenshot from Approaching the Unknown (2016). Directed by Mark Elijah Rosenburg.

refer to actual or manifest external danger. However, many events and things may be interpreted as dangerous in the unfolding of the narratives: the core point of confrontation is the battle with the self.

Key questions such as inquiring, "What did he find out there in the abyss?," in reference to Clifford McBride, guide this insight. Rosenburg (2016) comes to the same conclusion when he speculates, "mankind is exploring a new terrain, an unknown, but we are not battling with the elements of space the way we battled with the elements of the Earth. Instead, we battle ourselves in an infinite void." This leads to the conclusion that the formless unease that constitutes eco-anxiety does not necessarily lead to a substantial confrontation or overcoming of the anxiety. Guided by the two films, it seems more like the protracted malaise continues until the main protagonists succumb to something outside themselves. In the case of Roy McBride, he realizes the realness and necessity of human engagement and contact. For Stanaforth, it is the realization that he cannot control everything through his cunning intellect as he is overcome by the magnificence of the cosmos.

Solastalgia and exiled astronauts: "the astronaut feels like a foreigner on his own planet, exiled by fate"

The images of exiled astronauts selected here to explore solastalgia consist of the performance work of the Kongo Astronauts (2021–2022), and the short sci-fi film by Maisha Maene, entitled *Mulika* (2022). I have opted not to solely use the term Afronaut since the artists selected here do not refer to themselves unambiguously as "Afronauts." The term Afronaut has several meanings, and the most prominent one is as a trope for the cultural production by African diasporic artists (Bourland, 2020; Wilson, 2019). Several authors use the terms Afronaut and African astronaut interchangeably (Armillas-Tiseyra, 2016; Wilson, 2019), but in this discussion, the African astronaut will be favored as the exiled astronaut, akin perhaps to the preference for Africanfuturism rather than Afrofuturism (Okorafor, 2019). My interest is not strictly speaking in Africans that have been to outer space but rather in the imaginary intersection between outer space and Africans. For as we know, space and

by implication outer space, is always already colonized and racialised (Lathers, 2010). Although African Americans have become astronauts in the past, no black African has become an astronaut yet. The analysis of the exiled astronaut will, therefore, focus more on African astronauts as mythical figures that embody visual narratives about feelings of exile, abandonment, loss of place and, subsequently, solastalgia. It is also argued that the exiled astronaut enacts these traumatic experiences as an agent from outer space or a returning outsider, enabling a renewed and different relationship with place.

The first example of the exiled astronaut is represented in the work of the Kongo Astronauts, the Kinshasha-based performance duo consisting of Michel Ekeba (Congolese) and Eléonore Hellio (French). The artistic pair (sometimes assisted by other "co-pilots" and "passengers") combine their efforts by Ekeba performing as the astronaut in a make-shift suit in the streets of Kinshasha and Hellio documenting and photographing the performances. They describe themselves as "a visual, sound, textual and space-time experiment" (Malaquais, 2019), and their activities include performances, film, sculpture, installations and photographs to document the performances. The first "apparition" or performance of the astronaut walking the streets of Kinshasha at odd times and in strange places was documented in 2013. Currently, the Axis Gallery in New York represents the Kongo Astronauts, to preserve their mostly freestyle work also in "an object-form" (Hölling et al., 2023).

The Kongo Astronauts proclaim in an interview that "the astronaut feels like a foreigner on his own planet, exiled by fate" (Grugier, 2021, my emphasis). With this exclamation, the solastalgic stage is set for their utopian performances. The sense of alienation is chiefly caused by the environmental devastation rampant in Kinshasa, DRC, due to the extraction and mining of Coltan (Columbite-Tantalite) – a rare metallic ore used to produce mass electronic goods, such as mobile phones, laptops and videogame consoles. The extraction activities cause conflicts such as the Colton War east of the DRC, leading to displacement and poverty. In the case of the DRC, it is not only the extractivism - a contemporary form of capitalist and neo-imperialism that extracts as many natural resources for as much profit as possible (Willow, 2018) - that causes devastation but also the toxic pollution caused by the mining activities. In addition, the dumping of e-waste from the global North and Asia creates mountains of rubbish, while the inhabitants have no access to electricity and running water. This means the Kongo Astronauts depict the existing conditions of those "living in a country with immense natural resources but which is listed as one of the poorest countries in the world," and which generates a sense of impotence (Doulton, 2021, p. 3). The impotence can be associated with solastalgia because the inhabitants of Kinshasa's (the Kinois) sense of self and place attachment are implicated in the degraded environment. The Kinois revert to terms like "libulu (the hole)" (De Boeck, 2016) and the Avenue Misère (Misery Avenue) (Doulton, 2021), to describe their decaying urban environment, filled with erosion, holes and cracks, and dumping sites - a changed environment indeed (Figure 5).

The Kongo Astronauts perform in the ghettoes of Kinshasa by embodying and immersing themselves in environmental degradation. Ekeba performs as the astronaut, and Hellio documents the performances through film and photographs that are not scripted but rather led by interactions and engagements with bystanders in the streets. Ekeba notes:

The performances have rarely taken place in art spaces, but often in the streets of Kinshasa. I adapt my presence to who is there to interact with me; performing at an art event with rich people is not the same as being in one of the neighborhoods of my city. (Hölling et al., 2023, p. 206)

The engagement with the onlookers varies, but mostly, the astronaut appears like a messenger, an alien delivering an inconvenient truth. Therefore, locals often identify the performances as apparitions and speculate about renewed sightings. Ekeba wears a heavy space suit "fashioned from disused computer parts" (Bourbon, 2022); the suit is constructed from "cyber-trash [...] touched up with spray paint" (Doulton 2021, p. 1). The self-improvised suit is thus make-shift at best, like a bricoleur the astronaut makes-do with what is available to assemble his suit. Herein lies a bitter



Figure 5. Kongo Astronauts Untitled [−3], (2021–2022) SCrashed_Capital.exe series © Kongo Astronauts, courtesy Axis Gallery, New York.

irony: it is often the "discarded electronic circuits originally made from Congolese coltan" used to create the suit (Doulton 2021, p. 2). The Kongo Astronaut thus wears the environmental destruction on his sleeve.

In the process, he becomes "half-cyborg, half-astronaut" (Doulton, 2021, p. 2) since the history of the astronaut is interspersed with cyborg developments (cf. Du Preez, 2022). There is no astronaut without being a cyborg as well. Although, the cyborg component carries a weighty burden in this case, imbued with the scraps that cause the devastation: "It's a Frankenstein's monster that embodies the refusal to surrender to the daily hardships imposed by a post-colonial environment" (Grugier, 2021). Ekeba notes that while he performs as an astronaut, he often feels disconnected and alienated:

When I put on my astronaut suit, I feel like I'm suffocating, like how Kinshasa suffocates me sometimes. We can't breathe. Lots of trees have been cut down these past 20 years, temperatures have risen, plots have less and less open space. (Grugier, 2021)

He also refers to experiencing vertigo while performing, which is not only a physical realization but also denotes the Kongo Astronauts' mission to "[cross] the vertiginous divide of worlds" (About KA, 2019). Vertigo has an additional metaphysical layer that confronts mortality during the phenomenon: "Symbolically and literally, one must deal with the absolute certainty that life is fragile and could end at any moment, either by one's own choosing or by accident" (Krivitzky, 2011, p. 5). In the case of the Kongo Astronauts, vertigo relates to the estranged environment and the realization that all things are finite and changing. In this sense vertigo also corresponds with Ferrarello's (2023) description of solastalgia as manifesting "in feelings of isolation, disorientation, and the loss of a sense of belonging" (p. 151).

Walking through familiar places no longer brings solace but discomfort instead. As Ekeba reflects: "Exile is broad, not just physical but also in our head, a mental exile. So you invent a future

that escapes the present you're currently living in" (Grugier, 2021). They are creating eco-imaginaries by "offer[ing] viewers a vision into a world that is imaginatively fictive yet grounded in ordinary experiences" (Bourbon, 2022). It is an attempt "to resist the *psychic ghettos* that cover multiple postcolonial realities" (Bourbon, 2022). The images created may evoke a sense of escape but also establish a renewed link with the place called home, Kinshasa.

One may, therefore, speculate about the intervention brought about by the Kongo Astronauts. Once again, Ekeba provides pointers:

[the] Kongo Astronaut undergoes a metamorphosis to become a space and time traveller. When I put my astronaut suit on, I disconnect myself from the system. I change dimension. I hover above the negativity of reality. I become the system that controls the world. (Doulton, 2021, pp. 7–8)

The astronaut suit also links with traditional African masks worn during rituals to intercede between differing worlds. Thus, the astronaut performance is simultaneously an attempt to look back at a lost past, and to provide a futuristic perspective on what home may look like again in future. The astronaut-mask enables the Kongo Astronauts to see things from outside, from another perspective and even momentarily allows him to float "weightless [...] above the despair" (Doulton 2021, p. 8).

In the 14-minute sci-fi film *Mulika* (2022), directed by the Congolese artist Maisha Maene and produced by Leo Nelki (UK), a similar act of estrangement and outsiderness is portrayed (Figure 6). The film is distributed by Sudu Connexion based in Pantin, France, an international film company specializing in distributing films from Africa and its Diaspora, and it received financial support from the Trust Merchant Bank, the Terry Duffy Art Foundation, and the British Art and Design Association. The project does not stand apart from the Kongo Astronauts, and Maene acknowledges being inspired by them. In his director's statement, he explains: "*The astronaut is an 'other,' a foreigner without a true home*. He is in search of his identity, in search of a place which resonates with his values, and the consequences of that search can be deep".

The Swahili term "mulika" can be translated as to light up or to illuminate, and this is precisely what the wandering astronaut does: he lights up the streets of Goma. The narrative is constructed around an exiled astronaut returning after a mission to protect natural resources, which indicates an environmental crisis that led to the initial exile. Landing in the volcanic crater of Mount



Figure 6. Still from Mulika (2022). Directed by Maisha Maene. Producer Leo Nelki.

Nyiragongo, which erupted shortly before the film's shooting, the astronaut wanders into Maene's hometown in the Republic of Congo, the city of Goma. The fallen astronaut is "dressed in a daringly DIY spacesuit made of computer scraps and crushed bottle caps" (Todd, 2023), with illuminating torches in his helmet and groin area. We are informed that despite his outer-worldly appearance, the astronaut is indeed human. However, he is constructed from "Niobium (a rare chemical element) and perhaps from the future" (Todd, 2023). The film is positioned within the Africanfuturist genre and depicts Maena's solastalgia for a lost world: "I made this film because I wanted to imagine a future for my country and create a way to escape the exploitation of the present day by connecting with our cultures and our ancestors" (Mulika, 2022).

The emigrant astronaut initially perceives his birthplace as an outsider, returning to a place he once called home but now has become strange. The people of Goma perceive him with curiosity and amazement, observing: "'He's a human like me,' says a smiling man while tapping his shoulder like he's known him forever: 'My man, he's cool'" (Todd, 2023). Where-ever he walks, he lights up the space, and his progression through the streets causes an intense excitement as children shout, "The robot has come back to Goma!" Mulika acts as a harbinger of a new future or an emissary of a different place to come. A bystander explains that his mission is to save humanity from "the world's vultures who transformed [Africa] into a hell on earth" (Todd, 2023). The intention of Mulika is also to draw attention to the extraction of minerals from the Congo and the repercussions. "This film talks about a particular history and reality of Congo related to the mining exploitation of the East of the country, my native region; a story which is at the same time connected to the universal reality of the new technology and its effects" notes Maene during an interview (Mulika, 2022).

The film ends with the astronaut returning to Lake Kivu, near Goma and meeting with a nganga who greets him with the following incantation: "If today is the past of tomorrow, we can change tomorrow, and if today is the future of yesterday, we are already in the future." The image-idea illuminated in Mulika is one of hope and a longing to rekindle a meaningful relationship with the alienated landscape and "to reconnect with his identity and his roots".

Conclusion

In the analysis two eco-imaginaries have been compared to reveal the image-ideas about climate change as particularly embodied through the relations and narratives about place and Earth. In the case of the aspirational astronaut an image of a hyper-individualistic agent that prepares to escape Earth for the sake of progress has been identified. The disconnection from place and Earth does result in a loss of humanity. In the films Ad Astra and Approaching the Unknown formless eco-anxiety has been portrayed by the confrontation with the void in outer space. The initial optimism and aspiration are tempered by the realization that the self and Earth by implication, remain the centering axis for meaningful human existence.

The eco-imaginary of the exiled astronaut explored two African astronaut constellations, the Kongo Astronauts and Maene's Mulika. It is argued that the African eco-films portray a deep sense of solastalgia and estrangement from their degraded environment that is rarely seen as part of the African Anthropocene. The complexity of performing as exiled astronauts in establishing a renewed relationship with their places and homes is highlighted, as both an environmental critique and expression of hope. Earth is not displaced or interpreted as mere halfway station to the stars. In fact, Earth is placed as the necessary condition for existence.

Although the depiction of the aspirational astronaut suggests that it is a brave endeavor only to be undertaken by the most heroic adventurers, if compared to the exiled astronaut another form of heroism is revealed. The exiled astronaut is the one who returns from the outside to visit home and although the encounter with the devasted environment is alienating, it is the exiled astronaut that forges a new relationship with place amidst the devastation. In Wendell Berry's terms: the aspirational astronaut is a boomer and the exiled astronaut is a sticker.



Notes

- 1. Although the primary examples selected here to discuss solastalgia are not from South Africa specifically but rather from sub-Saharan Africa, it is worthy to note the work of Gerald Machona, entitled *Vabvakure* (people from far away) (2012), in which he illuminates the painful experience of being an outsider (in exile as Zimbabwean born) during rampant xenophobia outburst in South Africa. In his performance, Machona also wears an astronaut suit consisting of decommissioned Zimbabwean Dollars (amongst other materials) as he "invades" a desolated landscape evoking the Moon or Mars. It is argued that although there may be slight differences in their intonation between sub-Saharan and South African representations of the theme of solastalgia and the exiled astronaut, they mostly speak with the same voice.
- 2. It is perhaps important to note however that of the two films *Ad Astra* is by far the more successful in terms of box-office success with \$135.4 million earned, compared to *Approaching the Unknown*'s box-office failure of \$10,232. There is also a huge discrepancy between the budget for each of the films, where *Approaching the Unknown* has a meager budget of \$1.3 million to work with, whereas *Ad Astra* had a budget of \$80–100 million.
- 3. In *Approaching the Unknown* the script does not reference a particular eco-disaster that leads to the expedition to Mars but as the scholarship around the topic of multiplanetary colonization and plans to terraform Mars for instance clearly evidences, the reason for the planned exodus is an internalized eco-anxiety about Earth's changing climate. In this regard, the rhetoric implemented by Elon Musk and other spacetrepeneurs always starts with the disaster of climate change to motivate the exploration.
- 4. Mandla Maseko, the first black African astronaut to be, born in South Africa, won a competition in 2014 and hoped that "[he would] defy the laws of gravity, and go down history as the first black South African in space" (BBC News, 2014). Sadly, the company that sponsored Maseko's outer space trip went bankrupt in 2017, and the fondly nicknamed "Afronaut" and "Spaceboy" could not realize his dream before his tragic death in a motorbike accident in 2019 (BBC News, 2019). Thus, we have not seen a black African astronaut in outer space.

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