A COMPARATIVE FILM ANALYSIS OF INDIGENOUS ECO-CRITICAL ETHICS AND COSMOLOGIES IN AVATAR AND MIKOLO

Kenneth Eladebi OKPEKE
Dramatic Arts Department
Obafemi Awolowo University, Ile-Ife, Nigeria
kennethokpeke@gmail.com
08137691185

Abstract

This paper comparatively analyses indigenous eco-critical ethics and cosmologies in James Cameron's *Avatar: The Way of Water* (2022) and Niyi Akinmolayan's *Mikolo* (2023). It examines how the films construct relationships among humans, non-human beings, community and the natural environment, and how those relationships carry ideas about responsibility, belonging, coexistence and the moral status of nature. The study employs qualitative comparative textual analysis, supported by scholarship on Indigenous Knowledge Systems, ecocriticism and Performance Studies, as well as relevant production materials. Richard Schechner's Performance Theory is used alongside an eco-critical reading to examine how ecological values become visible through behaviour, narrative action, space and digital imagery. The study finds that both films present ecological knowledge as experiential and relational, while their cosmologies position humans within wider networks of life. It further finds that digital technology can intensify such representations without guaranteeing cultural authenticity. The paper recommends a culture-first model of digital filmmaking in which technological choices remain accountable to cultural research, ecological ethics and human creative judgement.

Keywords: *Indigenous Knowledge, Ecocriticism, Cosmology, Cinema, Performance*

Introduction

Indigenous knowledge provides communities with ways of understanding the environment, organising social life and interpreting relationships among human beings, animals, land, water and the spiritual world. It develops through observation, experience, memory, oral transmission, ritual, work and communal participation. Its significance lies not only in the information a community possesses but also in the relationships through which that information acquires meaning. Knowledge of a forest, for example, may include practical understanding of plants and animals as well as beliefs, obligations, prohibitions and stories that shape how the forest should be approached.

George J. Sefa Dei locates Indigenous Knowledge within the experiences and cultural practices of particular communities, while Marie Battiste stresses that it cannot be separated from the cultural relationships through which it is produced and transmitted. Such positions are important to film analysis because cinema does not simply reproduce knowledge; it reorganises it through image, sound, performance, editing, characterisation and space. A cultural relationship can be made visible through a character's conduct, a community's treatment of an animal, a ritual action, a spatial arrangement or a narrative conflict over the use of natural resources.

The ecological dimension of indigenous knowledge provides a further basis for examining its cinematic representation. Ecocriticism considers how cultural texts imagine the relationship between human beings and the more-than-human world. An eco-critical reading therefore asks

what a film assumes about nature, who is permitted to use it, what forms of life receive moral consideration and what consequences follow when ecological relationships are violated. When combined with the study of indigenous cosmologies, this approach moves beyond the identification of forests, rivers, animals or rituals as cultural images. It asks what worldview makes those elements significant.

Cosmology is used in this study to mean the underlying conception of the relationships among humans, nature, other living beings and the spiritual or unseen dimensions of existence represented within a cultural world. The term is applied carefully. The Na'vi are fictional and cannot be treated as an Indigenous people. Their worldview is an imaginative construction that draws on ideas of ecological interdependence, communal belonging and spiritual connection. *Mikolo*, by contrast, operates within Nigerian cultural imagination and places its fantasy in a recognisable Nigerian environment, but it too is a fictional film rather than an ethnographic account of Yoruba cosmology.

The present study brings these concerns together through James Cameron's *Avatar: The Way of Water* and Niyi Akinmolayan's *Mikolo*. *Avatar: The Way of Water* centres the Metkayina, a reef-dwelling Na'vi community whose life is closely tied to the ocean and marine beings. *Mikolo* follows Funke and Habeeb, two children whose encounter with a mysterious creature leads them into the Irumole forest. The films differ sharply in industrial scale and production design, yet both use encounters with non-human life to organise moral learning.

The choice of the films is therefore comparative rather than technological. Avatar demonstrates how advanced digital world-building can construct a fictional ecological cosmology. *Mikolo* demonstrates how Nigerian live-action cinema can combine physical locations with CGI and visual effects to create a family fantasy in which the forest and a non-human creature become sources of knowledge. The central spine of the paper is that both films make ecological ethics visible through lived relationships, but their cultural authority differs. Their comparison shows that digital realism can strengthen the presentation of an ecological worldview without, by itself, making that worldview culturally authentic.

Statement of the Problem

The expansion of digital filmmaking has increased attention to CGI, visual effects, animation, virtual environments and artificial intelligence. Much of this discussion evaluates technical achievement: realism, scale, speed, image quality and spectacle. Such measures become inadequate when the subject is indigenous ecological knowledge. A forest may look convincing while the cultural obligations attached to it disappear. A digitally created animal may be visually persuasive while its spiritual, social or ethical significance is reduced to plot function.

A related problem concerns the tendency to treat indigenous knowledge as a collection of symbols. Costumes, myths, landscapes, sacred objects and supernatural beings can be presented as evidence of cultural depth even when the social relationships that give them meaning are absent. This separation is particularly troubling in ecological narratives because an indigenous cosmology often concerns not only what nature looks like but how humans ought to behave towards it.

The comparison of *Avatar: The Way of Water* and *Mikolo* exposes a further tension between technological sophistication, cultural proximity and authenticity. Avatar offers an elaborate fictional indigenous-like society produced through advanced digital processes, while *Mikolo* situates digital fantasy within a Nigerian environment. Neither position automatically settles the question of cultural legitimacy. The problem, therefore, is to determine how the films construct ecological ethics and cosmological relationships, how those ideas are performed, and what the comparison implies for responsible digital representation.

Research Questions

i. How do *Avatar: The Way of Water* and *Mikolo* represent indigenous eco-critical ethics and cosmological relationships?
ii. How are ecological values and cosmological ideas communicated through performance, narrative, space and digital imagery?
iii. What does the comparison reveal about cultural authenticity, technological mediation and responsible environmental representation?

Aim and Objectives

The aim of the study is to comparatively analyse how indigenous eco-critical ethics and cosmologies are constructed in *Avatar: The Way of Water* and *Mikolo*.

i. Examine how the films represent relationships among humans, nature and non-human beings.
ii. Analyse the ecological ethics and cosmological assumptions embedded in the films' narratives, spaces and performances.
iii. Examine how digital technologies mediate the representation of ecological and cultural relationships.
iv. Assess the implications of the comparison for culturally responsible digital filmmaking in Nigeria.

The study adopts a qualitative comparative film-analysis design. *Avatar: The Way of Water* and *Mikolo* constitute the primary texts. Selected sequences are examined through close reading of character behaviour, dialogue, movement, sound, costume, visual composition, setting, interactions with animals and other non-human beings, and the narrative consequences of ecological choices. Production documentation is used only where claims about digital processes require technical evidence.

The analysis is organised around four linked categories: ecological ethics; cosmological relationships; performance and knowledge transmission; and digital mediation. Ecological ethics concerns the values governing human conduct towards the environment and other forms of life. Cosmological relationships concern the position of humans within wider networks of existence. Performance and knowledge transmission address how values become embodied in action. Digital mediation considers how CGI, VFX, performance capture and related processes shape the visibility of those relationships. The study does not rank the films according to visual-effects

quality, nor does it claim to authenticate either film against a single Indigenous community. Its purpose is interpretive: to identify the ecological and cosmological meanings constructed by each film and to compare the cultural and technological conditions under which those meanings are presented.

The theoretical framework combines an eco-critical perspective with Richard Schechner's Performance Theory. Ecocriticism provides the principal conceptual lens for examining representations of nature, non-human agency, ecological responsibility and the boundaries between human and more-than-human life. It is particularly appropriate to this study because both films use environmental relationships to organise moral conflict and learning. The eco-critical reading is complemented by Performance Theory. Schechner's expanded understanding of performance includes ritual, social behaviour, repeated actions and culturally organised practices. His concept of "restored behaviour" is useful because knowledge is frequently transmitted through repeated acts rather than abstract explanation. A child learns by watching, imitating, practising and participating. Cultural values become visible through what people repeatedly do. Together, the two perspectives provide a clear analytical direction. Ecocriticism asks what ethical and cosmological relationship with nature a film constructs; Performance Theory asks how that relationship is embodied and transmitted. The combination prevents the analysis from treating ecological ideas as dialogue alone. In both films, the audience learns about the environment through bodies, spaces, encounters and consequences.

Eco-critical Ethics and Cosmology in Avatar: The Way of Water

Avatar: The Way of Water extends the fictional world of Pandora by introducing the Metkayina, a reef-dwelling Na'vi community. Their social life is closely organised around the ocean. Water is a place of residence, work, movement, instruction and belonging. The environment consequently functions as a social and moral space rather than a decorative background.

The training of the younger characters demonstrates an experiential form of ecological knowledge. Swimming, diving, breath control and interaction with marine life are learned through observation, practice and participation. Knowledge resides in the body as much as in speech. The children must adjust their movement to the water and learn the practices of a community whose survival depends on understanding its environment.

The film's cosmology becomes more pronounced in its representation of the relationship between the Na'vi and other living beings. The tulkun are not presented as ordinary resources. They possess intelligence, memory, social bonds and emotional depth. Their hunting by humans consequently carries ethical weight. The conflict is not simply about killing an animal; it concerns the violation of a relationship in which another form of life is recognised as worthy of respect.

This ethical position challenges an instrumental understanding of nature. The film contrasts a community that treats other living beings as participants in a shared world with human hunters who reduce the tulkun to economic value. The contrast gives the ecological conflict its moral force. Nature is not outside society; it is part of the social and ethical order.

Technology is essential to the film's representation of this worldview. Wētā FX reports extensive visual-effects work, including thousands of VFX shots, large-scale water work, underwater performance capture and facial animation. The digital world is consequently built through a production process in which human performance is translated into non-human characters and environments. Production research associated with the film also documents machine-learning-supported facial-animation processes. The technological achievement makes the ecological world perceptually persuasive, but it does not establish the cultural truth of the fictional Na'vi cosmology.

That distinction is central to the argument. The Na'vi are fictional, and their worldview should not be presented as a direct representation of any specific Indigenous people. The film can draw on ecological ideas commonly associated with indigenous worldviews while remaining a Hollywood construction. Its achievement is therefore best understood as imaginative eco-cosmological world-building, not ethnographic representation.

Eco-critical Ethics and Cosmology in *Mikolo* offers a different model. Directed by Niyi Akinmolayan and produced by Anthill Studios, the film follows Funke and Habeeb after they encounter a magical creature and become involved in its protection. The Irumole forest is central to this experience. It marks a movement away from the controlled domestic world of the children and into an environment in which ordinary assumptions about human authority are unsettled.

The encounter with *Mikolo* produces an ethical shift. The creature is initially perceived as unusual and potentially mysterious, but the children gradually recognise that it is a living being whose safety matters. Their decisions force them to consider care, responsibility and the consequences of human actions. The forest consequently operates as a site of moral education.

The film's cosmological dimension is less systematised than that of *Avatar*. It does not construct an elaborate fictional society with a fully articulated spiritual order. Instead, it draws on the Nigerian imaginative tradition in which the forest can function as a threshold between ordinary and extraordinary experience. The magical creature provides the point through which children encounter a world that exceeds the limits of their everyday knowledge.

Family relationships also shape the transmission of values. Cooperation, courage, care and responsibility emerge from the children's actions rather than from formal lessons. Their experience makes knowledge practical. The ecological lesson is therefore embedded in the story's movement from curiosity to responsibility.

Digital technology supports this construction. *Mikolo* is created through CGI and visual effects and placed alongside human performers and physical Nigerian locations. Unlike *Avatar,* which builds an extensive fictional environment, *Mikolo* retains the material presence of recognisable locations and uses digital imagery to extend them into fantasy. The resulting hybrid space is important to the film's ecological meaning because the forest remains a physical environment while also becoming a site of the marvellous.

The film's uneven CGI integration, noted by some critical responses, also illustrates the relationship between technology and performance. When the digital creature does not blend fully with the physical environment, the audience becomes aware of the production process. That

interruption can weaken the credibility of the human–non-human relationship. It does not, however, cancel the film's cultural significance as a Nigerian attempt to combine family storytelling, environmental space and digital fantasy.

Comparative Analysis

Analytical category	***Avatar: The Way of Water***	***Mikolo***	**Comparative significance**
Eco-critical ethics	Respect for marine life and opposition to extractive violence.	Care, protection and responsibility towards a vulnerable creature.	Both challenge unrestricted human domination of non-human life.
Cosmology	A fictional ecological order linking community, ocean and living beings.	A less systematised Nigerian fantasy in which forest and magical life exceed ordinary human knowledge.	Both place humans within a wider order of existence, but with different levels of cosmological elaboration.
Knowledge	Aquatic competence is learned through practice and participation.	Moral understanding develops through encounter, action and consequence.	Knowledge is experiential rather than primarily instructional.
Space	Pandora's ocean is extensively constructed as a complete fictional ecology.	Physical Nigerian locations are extended through digital fantasy.	Digital cinema can construct or augment ecological worlds.
Performance	Human actors' movement and emotion are translated into digital Na'vi characters.	Live actors perform in physical locations alongside a CGI creature.	Technology remains dependent on embodied performance.
Cultural authority	Fictional indigenous-like worldview created within Hollywood cinema.	Nigerian cultural proximity, but still a fictional entertainment text.	Geographical proximity and visual realism do not independently establish authenticity.
Technology	Extensive VFX, water simulation, underwater performance capture and facial animation.	CGI and VFX integrated with live-action production.	Technology intensifies representation but does not determine cultural meaning.

The strongest point of convergence is the representation of learning through relationship. In *Avatar*, younger characters learn how to live within the Metkayina environment by observing, practising and participating. In *Mikolo*, Funke and Habeeb learn through an encounter that changes their understanding of responsibility. In both films, ecological knowledge becomes dramatically meaningful because characters must act on it.

The films also share a refusal, at important points, of the idea that non-human life exists solely for human use. The tulkun and *Mikolo* are narratively significant because they make other

forms of life subjects of care rather than objects of consumption. Their differences are nevertheless substantial. Avatar constructs a more explicit ecological cosmology, where the organisation of community life is inseparable from the natural world. *Mikolo* works through a simpler moral structure in which a forest encounter changes children's behaviour.

Their differences in cultural authority are equally important. *Avatar's* Na'vi are fictional, so its ecological cosmology cannot be treated as the direct testimony of an Indigenous people. *Mikolo* is produced within Nigeria and uses Nigerian settings, but its fantasy remains a crafted narrative rather than a comprehensive account of Nigerian or Yoruba cosmology. The comparison therefore rejects two assumptions: that technological realism equals authenticity, and that cultural proximity automatically guarantees it.

The comparison instead supports a more precise criterion. A film's treatment of indigenous ecological knowledge is stronger when environmental relationships are integrated into character behaviour, narrative conflict, social organisation and moral consequence. Digital effects become culturally useful when they strengthen those relationships rather than replace them with spectacle. Digital Mediation and Cultural Responsibility functions in both films as a mediator of ecological meaning. A digitally generated creature is not simply an image; its appearance, movement, behaviour and relationship with performers are shaped by creative decisions. Likewise, a digital environment is constructed according to choices about scale, movement, colour, sound, perspective and narrative use. Technology therefore participates in the interpretation of nature.

This point requires precision in discussions of artificial intelligence. CGI, VFX, performance capture and machine learning are distinct processes, although they can operate within the same production. CGI refers to computer-generated imagery; VFX covers processes that alter or combine visual material; performance capture records aspects of human performance for later use; machine learning employs computational models to process or generate patterns. The evidence for Avatar supports a specific discussion of machine-learning-assisted facial animation. For *Mikolo,* the stronger production evidence concerns CGI, animation and VFX. It would therefore be inaccurate to label the entire production of *Mikolo* AI-driven.

Cultural responsibility remains a human obligation. Digital systems may assist filmmakers, but they do not independently decide which ecological beliefs should be represented, which practices should be retained, or what a cultural relationship means.

Major Findings

1. Both films construct ecological ethics through relationships rather than isolated environmental images.
2. Both represent knowledge as experiential: characters learn through observation, participation, movement and consequence.
3. Avatar offers a more elaborated fictional ecological cosmology, while *Mikolo* uses a more localised fantasy structure centred on children, forest and care for non-human life.
4. Digital technology increases the perceptual force of ecological world-building but cannot establish cultural authenticity on its own.

5. Cultural proximity is not identical to authenticity, just as fictional distance does not prevent a film from constructing meaningful ecological values.
6. Human performance and cultural judgement remain central even where digital processes transform bodies, creatures and environments.
7. Responsible digital filmmaking requires ecological understanding to precede technological display.

Discussion

The findings place the ecological question at the centre of the comparison. In both films, nature becomes meaningful through the conduct of characters. The ocean in *Avatar* matters because the Metkayina live through it and organise relationships around it. The forest in *Mikolo* matters because it becomes the setting in which the children confront a form of life that demands care. The environment is consequently part of the dramatic structure. The cosmological difference is more pronounced. Avatar creates a comprehensive fictional order in which the living world is closely connected through social and spiritual relationships. *Mikolo* does not construct an equally detailed cosmology; its imaginative force comes from placing a magical being within a Nigerian forest and allowing that encounter to alter human behaviour. The distinction prevents the two films from being forced into false equivalence.

Recommendation: A Culture-First Model for Digital Eco-cultural Filmmaking

The comparative evidence supports a five-stage culture-first model for Nigerian digital filmmaking: Research → Interpretation → Performance → Digital Construction → Cultural Review. The model places cultural and ecological understanding before technical execution.

Stage	Recommended practice	Purpose
1. Research	Investigate the beliefs, practices, ecological relationships and historical context behind the material.	Establishes a reliable cultural foundation.
2. Interpretation	Identify what can be adapted for film without severing the relationships that give it meaning.	Prevents cultural elements from becoming decorative symbols.
3. Performance	Translate ecological values into character action, gesture, interaction and narrative consequence.	Keeps knowledge embodied and dramatically legible.
4. Digital construction	Use CGI, VFX, animation, performance capture or other suitable tools to support the established story.	Makes technology serve cultural and ecological meaning.
5. Cultural review	Review the completed representation for distortion, simplification, misplaced symbolism or loss of context.	Provides an accountability stage before public circulation.

For Nollywood, the aim should not be to reproduce Hollywood's scale. Nigerian filmmakers can develop digital techniques suited to Nigerian stories, environments and knowledge systems. Collaboration among filmmakers, cultural researchers, performers, historians, designers, animators and VFX practitioners should be encouraged, particularly where a production draws on specific cultural knowledge.

Film schools and production companies should also treat ecological literacy as part of cultural storytelling. A production team working with forests, rivers, animals, farming, sacred spaces or traditional environmental practices should understand the relationships attached to those subjects before converting them into visual material. The measure of innovation should therefore include cultural and ecological responsibility alongside technical achievement.

Conclusion

The comparative analysis of *Avatar: The Way of Water* and *Mikolo* establishes that indigenous eco-critical ethics and cosmological relationships can be communicated through cinematic performance, narrative action, environmental space and digital imagery. Both films position learning within encounters with the more-than-human world. Their characters acquire knowledge through participation, observation, care and consequence rather than through formal instruction alone.

The core conclusion is that technological sophistication, visual realism and geographical proximity are insufficient measures of cultural authenticity. A stronger representation is one in which ecological values remain connected to social practice, performance, narrative consequence and cultural context. Digital technology can intensify that representation, but it cannot supply cultural meaning independently.

The study therefore recommends a culture-first approach: research should establish cultural and ecological understanding; interpretation should guide adaptation; performance should embody the knowledge; digital construction should support the performance; and cultural review should test the final representation for distortion or loss of context. This approach gives Nigerian cinema a practical basis for using CGI, VFX, animation, performance capture and emerging computational technologies without allowing technological processes to displace the knowledge systems and ecological relationships at the centre of the story.

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