

Introduction to the Special Section: The Nature in the Machine

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ABSTRACT This special section offers a map of the relationship between cinema and what we call ‘the natural world’, recognizing the human as a mediating element of this articulation, while responding and reacting to the tendency towards anthropocentrism that is found in both film production and the plurality of critical approaches canonized in the context of film studies. Our aim is to promote a discussion of this problem without any specific focus on a time period, geographical provenance or genre. The six essays gathered here explore the heterogeneity and rich configurations that the natural has obtained throughout the history of cinema, in fiction, documentary, and hybrid forms, both in works that fit explicitly into the field of ecocriticism and in those that contain an ecological subtext that connotes an ecocinematic perspective.

KEYWORDS Anthropocene; ecocinema; ecocriticism; ecology; environment; nature; politics.

The whole universe becomes a giant beast whose stones, flowers, and birds are so many organs that cohere with precision in their participation as a single common soul.

Jean Epstein

This special section was proposed to *Aniki* as an output of the ongoing research activities that have been developed within the Ecocinemas Workgroup of the Association of Moving Image Researchers (AIM), coordinated by Susana Mouzinho, Maile Colbert and José Bértolo, the editors of this special section.

Since 2021, this workgroup has been mapping the relationship between cinema and what we call ‘the natural world’, recognizing the human as a mediating element of this articulation, while responding and reacting to the tendency towards anthropocentrism that is found in both film production and the plurality of critical approaches canonized in the context of film studies. Ecocinemas has been promoting a broad discussion of this problem without focusing on specific time periods, geographical provenances or genres. Our aim has been to explore the heterogeneity and rich configurations that the natural has obtained throughout the history of cinema, in fiction, documentary, and hybrid forms, in works that fit explicitly into the field of ecocriticism, as well as works that contain an ecological subtext that connotes an ecocinematic approach or perspective. On the one hand, the reflection carried out in the group has been examining the different ways in which cinema presents animals, plants, fungi, the elements, etc. On the other hand, it has looked at the means by which cinema can question and transform these non-human inhabitants and elements of the planet, as well as the dynamics of power and influence that humans maintain with them. The debate has involved crossovers between more strictly philosophical or aesthetic issues and topics more directly associated with environmentalism and political activism. Finally, with a foundation in the field of film studies, the group’s activities frequently benefit from methods and epistemologies from other disciplinary areas, such as ecocriticism, philosophy, ecofeminism, queer studies, landscape and soundscape ecology, biology, botany, and geology, among others.

Nature can be and has been defined as life, living, the physical world, the natural world, the material world, the universe, geology and wildlife, the kingdom of plants and animals, the wild, wilderness. The natural is often

(re)presented in contrast with the artificial, while humankind, despite being part of nature, is often spoken of as separate. Contemporary ecologists have considered these representations and assumptions as a large contributing factor to different ecological problems, and potential as well as ongoing disasters. *Natura* in Latin meant 'birth' and could refer to essential qualities, an innate disposition. Nature can also be translated from the Greek *physis*, relating to the intrinsic characteristics that beings of the world develop on their own. Aristotle (1989) considered *physis* to hold multiple definitions, with multiple means towards interpretation. He felt nature contained, innately, its own source of "the four causes": matter (or material cause), power/motion (efficiency), form, and end (or final cause). He felt nature was dependent on art (or *techne*). The critical distinction between art and nature concerns their different efficient causes: nature is its own source of motion, whereas *techne* always requires a source of motion outside itself (Atwill 1998). They make up the two important forces of the world: one that holds its own motion, and another that needs to have it created. Humans hold both, and often feel the two are at war, internally or externally, such as cutting into a forest to build.

The term 'ecocinema' was coined by film scholar Scott MacDonald, who introduced the concept in the early 2000s, emphasizing the role of cinema in fostering ecological awareness and encouraging sustainable practices. In his influential book *The Garden in the Machine* (2001), MacDonald explores how films can engage audiences with environmental issues by portraying the natural world, illustrating ecological crises, and promoting an ecological consciousness. MacDonald also discusses the idea of ecocinema in depth, analyzing how various independent films address environmental themes and issues.

The history of ecocinema traces its roots through the evolving relationship between film and the natural world, reflecting humanity's shifting awareness of environmental issues. This arc weaves from the silent film era to the contemporary global cinema landscape, marking milestones in ecological consciousness and cinematic innovation. In the early 20th century, the advent of motion pictures brought with it an intrinsic fascination with the natural world, seen in the first films by Auguste and Louis Lumière. Reportedly, in 1895's *Repas de bébé*, the audience was especially struck by the foliage moving by the action of the wind. Then in the subsequent tradition of the travelogue, silent films like Robert J. Flaherty's *Nanook of the North* (1922) and Herbert Ponting's

The Great White Silence (1924) offered glimpses into the remote terrains of the Arctic and the Antarctic. Early documentaries captivated audiences with their portrayal of human endurance and the stark beauty of untamed landscapes, laying the groundwork for future nature films.

But the interest in the natural world is not limited to documentary cinema. In the 1910s, several directors of fiction films started to abandon the sets and bring their cameras outside. Victor Sjöström was one of the first to set his melodramas in the natural world, such as *Terje Vigen* (1917), an adaptation of a poem by Henrik Ibsen that films the sea, and *The Outlaw and His Wife* (1918), set in the mountains. In films such as these, the natural world achieved a status akin to the characters, informing decisively, both on a figural and a symbolic level, the films' narratives.

The same would take place in the 1920s, for example in F.W. Murnau's *Nosferatu* (1922), where the landscape appears filtered through the lens of German Romantic Art, namely through Caspar David Friedrich, adding subtle ecological layers to the mythical story of an evil being that threatens the social order of the bourgeois German society. And let's not forget the importance, for the experimental cinema of the coming decades, of Jean Epstein, who abandoned Paris to go to Brittany in the late 1920s to direct docufictions such as *Finis Terrae* (1929) or *Le Tempestaire* (1947), where he explored the theoretical concept of *photogénie* while presenting stories centered on the difficult relationships between men and women from the working class and the natural elements.

The 1960s and 1970s were transformative decades for ecocinema, coinciding with the rise of the environmental movement. Films like *Silent Running* (1972), directed by Douglas Trumbull, fused science fiction with ecological themes, envisioning a future where Earth's last forests are preserved in space. This era also saw the emergence of influential environmental documentaries such as *The Hellstrom Chronicle* (1971), which combined documentary footage with fictional elements to convey urgent ecological messages. Johan Van der Keuken's *La Jungle Plate*, also of 1971, shows, at the dawn of the environmental movement, the extreme fragility and interdependence between the human and the non-human in such delicate and specific environments as the Waddenzee by the North Sea.

Cinema was one of the artistic mediums that engaged with 'environmental art' and ecological thinking: in the 1960s and 70s, many

Land Art artists participated in exhibitions that dealt with the subject of nature and the environment, in response to the political climate of the era and influential environmental texts like *Silent Spring* (Carson 1962). Between an idealistic view of nature and systems theories that recuperated Alexander von Humboldt's view of nature as an interconnected system (this time, with a utopian turn), these works fed the cultural imaginary, appealing to an activist stance and stimulating a rethinking of the modes of appropriation and misuse of the earth.

Indigenous filmmakers have gained prominence, bringing vital perspectives to ecocinema with films that emphasize the deep time and the connection between cultures and the land. Artists like the collective Los Ingrávidos or works by Beatriz Santiago Muñoz – her *Farmacopea* (2013), for instance – question the appropriation by mainstream cultures of knowledge and indigenous flora and fauna, setting about to preserve myths and local traditions, highlighting their disappearance and pointing out the blind spots of canonical knowledge.

Reflection on the natural world continues in contemporary cinema, now under new perspectives aided by the growing emphasis on ecology, animism, and the non-human in fields of knowledge such as philosophy, anthropology, and art history. This trend aligns with the increasing presence of these themes in social consciousness and political discourse. Popular filmmakers such as Apichatpong Weerasethakul, Jennifer Baichwal, Naomi Kawase, Ana Vaz, and Lois Patiño, among others, have developed cinematic discourses in which the natural world is no longer viewed solely from a human-centric perspective but, on the contrary, exists independently and with new autonomy. Current environmental catastrophes caused by the extractive industries, but also pollution and climate change are the subject of many contemporary moving-image works like the Otolith Group's *The Radiant* (2012) or Jane and Louise Wilson's *The Toxic Camera* (2012). Nuclear waste, the toxic leftovers of technological production and mass consumption are ostensibly portrayed with the purpose of eliciting an “affective response” (Demos 2016, 253) that calls attention to the fragilities of the web of small-big elements that sustain and allow for the presence of life.

Durational films such as James Benning's *Casting a Glance* (2007) engage both with the presence and memory of an iconic earthwork, Robert Smithson's Spiral Jetty, and the impermanence and changes of environment and landscape, while contemplative works such as *Ten Skies* (2004) and *Thirteen Lakes* (2004) invite us to look closely to realms

that, even though (also) shaped by humans, seem to be indifferent to them. Contemporary cinema has also paid special attention to animals, sometimes seeking intriguing connections between cinema's technological "intelligence of a machine", as Jean Epstein eloquently put it (2014), and animal consciousness. Recent films such as *Leviathan* (2012) by Lucien Castaing-Taylor and Véréna Paravel (of the Sensory Ethnography Lab at Harvard University), *Gunda* (2020) by Viktor Kossakovsky, and *Cow* (2021) by Andrea Arnold, are paradigmatic examples of a recent movement attempting to practice a cinema that aims to defy the conventional subservience to the human both in its figurative and discursive components.

Interconnectiveness is an important theme in these practices and the critical reflections around them. Together they form an important perspective in the consideration of ecologies, covering many topics and angles that range from thought on nature and culture, urban and rural, what is desirable and undesirable, what is individual and what is social in our relationships, to what we consider nature, conservation and preservation, landscape and soundscape and the human and non-human within them. The tension between these and related categories trigger wider epistemological questions on what can be found and discussed between them, what can be found and discussed if we do away with them, and what can be found and discussed if we interconnect them. Should the environment, for instance, be considered as a whole, or as a complex and interconnected rhizome? Ecology is, by definition, a large register of 'inters': interconnection, interaction, interdependence, interdisciplinarity. The 'inter' attempts to sense a whole in seeing part of the whole and its connection to other parts of the whole. Ecocinema can help us experience these connections. Ecology deals with the relationship of organisms to their surroundings. This relationship is often clearly addressed in regard to place, but one should not ignore change and, therefore, time. A time-based media – like cinema – can help us apprehend (and embody) changing time.

The six articles that comprise this special section are testimony to the richness and complexity that the terms 'cinema' and 'nature', when considered together, bring to the fore. The authors of these articles propose ways of examining cinema and ecological thought relationally. That is to say, nature and ecological thought are not a subgenre or substrata in film studies; they should be regarded, instead, as fields of knowledge in contact and permeability. Film and the world it registers

are to be understood through, but also beyond, questions of cinematic realism and filmic representation. In an influential collection of essays on cinema and ecology, the editors remark:

[a]s a representational art, film screens nonhuman nature as both revelation and concealment. The ambivalence of the screen and of the act of screening, whether as projecting and exhibiting or as filtering and veiling, comes to define film's relationship to its own materiality: its locations, onscreen lives, mise-en-scène, narrative structures, spectators, exhibition spaces, its carbon footprint and chemical building blocks, from celluloid to silicon. All of these are part of cinema's diverse ecologies. (Pick and Narraway 2013, 2)

These diverse ecologies, human and non-human, are present in the constellation created by the essays that follows. This network of texts engages with cinema conventionally classified as experimental, narrative and essayistic to address the ways the materiality of the film medium, the modes of habitation within a shot or between the filmic apparatus, as well as the human and the natural world, critically engage with knowledge production and how we connect with the world.

The special section starts with Bárbara Bergamaschi Novaes's essay "A Physis Natural e o Sublime Tecnológico no Cinema Experimental Austríaco em Três Estudos de Caso: *Arnulf Rainer* (1960), *Tree Again* (1978) e *Train Again* (2021)", where the author takes rigorous editing procedures present in the films of Peter Kubelka, Kurt Kren and Peter Tscherkassky, three leading figures of Austrian experimental cinema known for dealing with film materiality, to propose a reading that takes the experience of making a film by engaging with nature and dealing with time and technology and how it appeals to a different experience of the sublime in Kantian terms. In this way, the author proposes that a "technocosmic", "post-human" image or look upon the world may be produced.

The idea of the sublime and the scale of nature are taken up by Lennon Macedo, Demétrio Pereira and Cássio Lucas in "Três ideias para um geocinema em Werner Herzog", where the authors propose the concept of "geocinema" as key to understand the German filmmaker. According to them, the earth and the cinema, in their 'abyssal' dimensions, are of the order of the event, engaging with and forever changing the ways in which they are perceived. While acknowledging that the natural world is paramount in the work of Herzog since its beginnings – Herzog's

remake of Murnau's *Nosferatu*, where German Romanticism is used to re-think the natural vis-a-vis the social, is from 1979 – , the authors center their analysis on Herzog's more recent movies, such as *Grizzly Man* (2005), *Encounters at the End of the World* (2007), *Into the Inferno* (2016) or *Fireball* (2020).

In the next essay, “A Natureza Brasileira como Inverso do Paraíso no Filme *A ilha dos prazeres proibidos de Carlos Reichenbach* (1979)”, Bruno Bello takes the film made by this Brazilian filmmaker as a case study to discuss the representations of Brazilian landscape. Bello focuses on the ways in which travelers' accounts and settler colonialism shaped the construction and perception of Brazil's landscape and its identity as an idyllic nation. The article addresses the politics implied in the construction of this image and the place of cinema in the deconstruction of an essentialized gaze turned at nature and identity. Representations of identity and politics in cinema prove highly generative when taken to the eco-cinematic terrain.

Dealing less with an observational mode of registering nature than with how different films approach what they qualify as ‘nature’ and refuse to see it as exterior to human subjectivity, João Wandscheer and Miriam Rossini's essay, “A natureza no cinema queer brasileiro contemporâneo: Um lugar possível”, considers the natural space as a space of movement that allows for the possibility of retreat and affirmation of identity, in what is termed a “space of ecosexual resistance”. Based on two case studies – *A Torre* (2019), directed by Sérgio Borges, and *Vento Seco* (2020), directed by Daniel Nolasco –, the authors ultimately argue that “nature can also help to articulate the struggles of the queer community and other minorities with demands for action against the destruction of the planet and the climate crisis”.

In “Capturadas e Mediadas: As paisagens sonoras dos recursos naturais e não-humanos no cinema de ficção distópica em Portugal”, André Malhado contests anthropocentrism by taking on sound, field recording and musical composition. For the author, the natural world can be thought through aurality and the sonic compositions present in Portuguese cinema, which oscillates between expectations of recognition and realism and the creation of dystopian fictions. Looking into Tino Navarro and David Rebordão's *Real Playing Game* (2013), Fernando Alle's *Mutant Blast* (2018), Diogo Morgado's *Solum* (2019), Diogo Morgado's *Interface* (2020), and Carlos Amaral's *Mar Infinito* (2021), Malhado claims that what we hear and what we give ‘voice’ to is

challenged in these underanalyzed works, concluding that the sonic universe of a film has the potential to expand and produce alternate “ecological subtexts”.

This special section closes with Valentin Via’s “A Geology of Film-Fossils: The survival images across time and space in the digital era”. The survival of the moving images and the inscriptions of time that have reached us through the indexes left in those images are the subject of many contemporary film productions that deal with the archive and with the apparently immobile and fixed. Geological strata, image layers and montage open up an epistemological field, where the complex network between the indexical, the haptical and the reactivation of time and the archive through each film and at each screening opens up a field of the ecological, in a moment of crisis, where the cultural and the natural are shown to be decisively intertwined.

In the quiet theater of shared existence, ecocinema unfolds in light and shadow upon the canvas of our collective consciousness. Here, stories of the Earth are told – not in the language of human supremacy, but in the humble, reverent tones of symbiosis and respect. Ecocinema is more than moving pictures; it is the pulse of nature captured in frames, ecosystems rendered in soundscapes, each frame becoming a fragment of a greater mosaic and each narrative becoming a thread in the intricate tapestry of life. The lens is turned outwards, away from sole human concerns, interconnecting and expanding our web, where we can become witnesses to the profound interconnectedness of all things. Ecocinema is a mirror held up to our times, reflecting the wounds we have inflicted, urging us to acknowledge the scars etched by our relentless pursuit of progress. Ecocinema can also be a celebration of resilience and renewal, a chronicle of the planet’s endless capacity for regeneration.

References

- Aristotle. 1989. *Metaphysics V*. Translated by H. Tredennick. London, William Heinemann Ltd.– via Perseus Project. 1013a. [Aristotle discusses the four “causes” in his *Physics*, Book B, ch. 3.]
- Aristotle. 1994. *Aristotle’s “De anima”*. Leiden; New York, NY: E.J. Brill.
- Atwill, Janet. 1998. *Rhetoric Reclaimed: Aristotle and the Liberal Arts Tradition*. Ithaca, NY: Cornell University Press.

- Carson, Rachel. 1962. *Silent Spring*. Boston, MA: Houghton Mifflin.
- Colbert, Maile. 2021. *Wayback Sound Machine: Sound through Time, Space, and Place*. PhD thesis in Estudos Artísticos. Lisbon: NOVA-Faculdade de Ciências Sociais e Humanas (FCSH). <http://hdl.handle.net/10362/148146>.
- Demos, TJ. 2016. *Decolonizing Nature: Contemporary art and the Politics of Ecology*. Berlin: Sternberg Press.
- Epstein, Jean. 2014. *The Intelligence of a Machine*. Translated by C. Wall-Romana. Minneapolis, MN: Univocal.
- MacDonald, Scott. 2011. *The Garden in the Machine: A Field Guide to Independent Films about Place*. Berkeley, CA: University of California Press.
- Pick, Anat and Narraway, Guinevere. 2013. *Screening Nature: Cinema beyond the Human*. New York, Oxford: Berghahn Books.

Filmography

- Repas de bèbè* [short film, digital]. Dir. Auguste & Louis Lumière. France, 1895. 1'.
- Nanook of the North* [feature film, digital]. Dir. Robert J. Flaherty. France & United States, 1922. 78'.
- The Great White Silence* [feature film, digital]. Dir. Herbert G. Ponting. BFI, United Kingdom, 1924. 80'.
- Terje Vigen* [feature film, digital]. Dir. Victor Sjöström. Sweden, 1917. 65'.
- The Outlaw and His Wife* [feature film, digital]. Dir. Victor Sjöström. Sweden. 1918, 72'.
- Nosferatu: eine Symphonie des Grauens* [feature film, digital]. Dir. Friedrich Wilhelm Murnau. Germany, 1922. 94'.
- Finis Terrae* [feature film, digital]. Dir. Jean Epstein. France, 1929. 80'.
- Le Tempestaire* [short film, digital]. Dir. Jean Epstein. France, 1947. 22'.
- Silent Running* [feature film, digital]. Dir. Douglas Trumbull. United States, 1972. 89'.

- The Hellstrom Chronicle* [feature film, digital]. Dir. Ed Spiegel, Walon Green. United States, 1971. 90'.
- La Jungle Plate* [feature film, digital]. Dir. Johan van der Keuken. L'association pour la sauvegarde de la mer des Wadden, Johan Van Der Keuken, Netherlands, 1971. 90'.
- Farmacopea* [short, digital]. Dir. Beatriz Santiago Muñoz. Puerto Rico, 2013. 13'.
- The Radiant* [HD video installation]. Dir. The Otolith Group. DOCUMENTA (13), United Kingdom, Germany, India, 2012. 64'.
- The Toxic Camera* [HD video for projection]. Dir. Jane and Louise Wilson. Flamin Productions, Forma Arts & Media, United Kingdom, 2012. 21'.
- Casting a Glance* [feature film, digital]. Dir. James Benning. United States, 2007. 80'.
- Ten Skies* [feature film, digital]. Dir. James Benning. United States, 2004. 105'.
- Thirteen Lakes* [feature film, digital]. Dir. James Benning. United States, 2004. 135'.
- Leviathan* [feature film, digital]. Dir. Lucien Castaing-Taylor & Véréna Paravel. United States, 2012. 87'.
- Gunda* [feature film, digital]. Dir. Viktor Kossakovsky. Norway & United States, 2020. 93'.
- Cow* [feature film, digital]. Dir. Andrea Arnold. United Kingdom, 2021. 94'.

Introdução ao Dossier Temático: A natureza na máquina

RESUMO Este dossier temático procura mapear as relações entre o cinema e o que designamos como mundo natural, reconhecendo o humano como elemento mediador dessa articulação, mas respondendo e reagindo, também, à tendência geral para o antropocentrismo que se encontra quer na produção cinematográfica, quer na pluralidade das abordagens críticas canonizadas no âmbito dos estudos fílmicos. O dossier promove uma discussão desta problemática, sem se reger por nenhum foco geográfico, temporal ou genológico específico. Os seis ensaios aqui reunidos permitem aferir a heterogeneidade e a riqueza das configurações que o natural tem obtido na história do cinema, tanto na ficção quanto no documentário e em formas híbridas, e tanto em obras que se enquadram explicitamente no campo da ecocrítica quanto

noutras obras que, ainda que não o fazendo de forma explícita, contêm um subtexto ecológico que potencia uma perspectiva ecocinematográfica.

PALAVRAS-CHAVE Antropoceno; ecocinema; ecocrítica; ecologia; meio ambiente; natureza; política.