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THE ACOUSTIC REPRESENTATION OF NATURE: AMBIENT MUSIC AND NEW AGE

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ABSTRACT:

This study aims to contribute to the field of ecomusicology, an interdisciplinary domain that explores the complex relationships between sound, the environment, and cultural production. It specifically investigates the aesthetic, ethical, and psychoacoustic functions of nature sounds within the musical narratives of ambient and New Age genres. Bioacoustic markers such as birdsong, flowing water, and wind are examined not merely as representations of natural environments but as auditory agents that foster sensory awareness and ecological empathy.

This review-based qualitative analysis explores existing scholarship and documented practices regarding field recordings, sound production technologies, and listener engagement, aiming to evaluate music's potential to enhance ecological awareness. Furthermore, it explores contemporary consumption patterns of nature-themed music on digital platforms, particularly in relation to listener trends and algorithmic recommendations. In doing so, the research highlights how such musical practices can serve not only as a reconnection with nature but also as a vehicle for cultivating sustainable environmental consciousness.

KEYWORDS:

ACOUSTIC ECOLOGY, ECOMUSICOLOGY, AMBIENT MUSIC, BIOACOUSTICS.

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INTRODUCTION

The aim of this study is to investigate how nature sounds (such as birdsong, the murmur of water, or the whisper of wind) are utilized not merely as aesthetic background elements but as *bioacoustic agents* within ambient and New Age music genres. In this context, the study seeks to offer an interdisciplinary evaluation by situating the role of nature sounds in musical structures within a broader framework that includes psychoacoustic effects, aesthetic experience, environmental awareness, and eco-empathy.

Through the analysis of works by composers such as Brian Eno, Hiroshi Yoshimura, Paul Winter, and Sigur Rós, the research explores the aesthetic positioning and cultural significance of nature sounds in music. In addition, listener data from digital platforms such as Spotify and YouTube are examined to assess the contemporary impact of these genres and their patterns of consumption.

The scope of the study focuses on New Age and ambient music productions from the latter half of the 20th century to the present, analyzed through theoretical frameworks including ecomusicology, bioacoustics, acoustic ecology, and attention restoration theory. Accordingly, the study not only addresses musicological concerns but also engages with environmental psychology, ethics, cultural studies, and media ecology. In doing so, it adopts a holistic approach to illuminate how auditory relationships with nature both individual and collective are shaped through artistic production and consumption.

METHODOLOGY

This study is designed as a literature-based qualitative *review* conducted from an interdisciplinary perspective. It systematically analyzes both foundational and recent academic works related to ecomusicology, bioacoustics, and Ambient/New Age music, aiming to develop a multi-dimensional conceptual framework. The review integrates sources from various disciplines, including musicology, environmental psychology, acoustic ecology, media studies, and cultural theory, in order to identify key aesthetic, psychological, and socio-ecological themes.

The data collection process involved a comprehensive

review of peer-reviewed journal articles, scholarly books, academic theses, industry reports, and user-based insights from contemporary digital platforms such as Spotify and YouTube. By synthesizing these diverse materials, the study constructs a critical lens for understanding the environmental and psychological significance of ambient and New Age musical practices.

BIOACOUSTIC-BASED SOUND AESTHETICS

Bioacoustics is an interdisciplinary scientific field that investigates the biological functions, propagation, and perception of sounds produced by living organisms. Situated at the intersection of ecology, ethology, neurobiology, and acoustic physics, bioacoustics primarily aims to understand animal communication, behavioral responses to environmental stimuli, and the ecological significance of sonic expression (Fletcher, 2007; Laiolo, 2010). In recent years, the influence of bioacoustic research has extended beyond the scientific realm into artistic domains, particularly within ambient and New Age music. Here, natural sounds are not merely decorative but serve as central aesthetic agents contributing to the discourse of ecomusicology (Allen & Dawe, 2016).

While nature sounds such as birdsong, the rustle of leaves, flowing water, or insect buzzing have long appeared in musical compositions, their treatment as *aesthetic subjects* has significantly developed since the latter half of the twentieth century. The concept of the soundscape, introduced by R. Murray Schafer (1994), and the compositional approach proposed by Barry Truax (2012), argue that environmental sounds should be understood not as passive recordings but as sites of ethical and aesthetic engagement.

This view is exemplified in Brian Eno's landmark album *Ambient 1: Music for Airports* (1978) and Hiroshi Yoshimura's *Green* (1986), where nature sounds function not as background ambiance but as carriers of sonic narrative and emotional resonance. These elements—such as the sounds of water, birds, and wind—not only facilitate environmental relaxation but also transform the perception of time, create mental spaciousness, and invite the listener into an empathetic relationship with the natural world (Nazeri & Sabran, 2023).

PSYCHOACOUSTIC EFFECTS OF BIOACOUSTIC INDICATORS

A growing body of research has demonstrated that natural sounds contribute to attention restoration, reduce stress levels, and support emotional regulation (Kaplan, 1995; Alvarsson et al., 2010). Bioacoustic indicators such as birdsong, rustling leaves, or the sound of flowing water are evolutionarily familiar auditory cues, and thus generate positive associations in the brain that promote cognitive relaxation (Lorenzi et al., 2023; Franek & Petruzalek, 2024).

These effects are not limited to short-term relaxation. Prolonged exposure to natural sounds has been shown to reduce overall stress levels, enhance mental focus, and alleviate symptoms of mood disorders such as depression (Franek & Petruzalek, 2024; Nazeri & Sabran, 2023). Experimental studies conducted in architectural acoustics, healthcare facilities, and rehabilitation environments reveal that natural soundscapes lower heart rate, reduce cortisol levels, and contribute to overall physiological recovery (Alvarsson et al., 2010; Azai et al., 2024).

The use of bioacoustic elements in music not only reinforces the auditory relationship with nature but also fosters environmental awareness in listeners. These sonic approaches do more than offer sensory relief; they also position the listener in a state of attentiveness and witnessing toward ecological realities (Prior, 2022). Especially in an age marked by climate crisis and ecological degradation, such sounds function as aural memory and ethical prompts. Music, in this context, becomes a medium for re-experiencing nature, cultivating affective connection, and promoting a sense of responsibility toward environmental preservation.

Therefore, the artistic reproduction of nature's psychoacoustic effects through bioacoustic indicators contributes not only to individual well-being but also to collective ecological consciousness and cultural sensitivity. From an ecomusicological perspective, this illustrates that representations of nature in music extend beyond aesthetic considerations they become acts of creative responsibility informed by ethical and ecological imperatives.

LISTENING EXPERIENCE AND ECO-EMPATHY

The impact of natural sounds on listeners is not confined to psychophysiological responses; it also involves emotional resonances that activate sensory memory, evoke collective memory, and mediate reconnection with the natural world. In this regard, the concept of "eco-empathy," increasingly prominent in ecomusicology literature, emphasizes the capacity of nature sounds to generate not only aesthetic pleasure but also ethical and emotional awareness (Franek & Petruzalek, 2024).

In Kaplan's Attention Restoration Theory (ART), encounters with natural environments produce a state of "soft fascination," which supports mental renewal without cognitive fatigue (Kaplan, 1995). Nature-based ambient and New Age music evoke similar responses by offering both attentional and emotional relief without overstimulation.

Sounds such as birdsong, wind, and flowing water are evolutionarily linked to safe and inhabitable environments in the human brain. Their reintroduction into music evokes positive associations while simultaneously encouraging emotional responsibility toward these environments (Lorenzi et al., 2023). In this way, empathy is redefined beyond anthropocentric boundaries, extending into the environmental domain.

Eco-empathy is not merely an emotional state it is a mobilizing awareness. The use of natural sounds in ambient and New Age music fosters not only nostalgia for

nature but also the development of ecological sensitivity. Music becomes an active medium and sonic dialogue, not a passive representation (Allen & Dawe, 2016).

These auditory experiences are particularly significant for urban dwellers who may lack direct exposure to natural environments. For such individuals, music can provide a cognitive representation of nature, enabling empathetic engagement through auditory memory. This suggests a pedagogical role for music in ecological education (Franek & Petruzalek, 2024; Allen & Dawe, 2016).

The use of bioacoustic indicators as aesthetic components in ambient and New Age music offers more than a relaxing experience. It fosters a process of empathy, collective awareness, and ethical responsibility toward nature. Within the ecomusicological framework, such experiences render the boundaries between music and environment more permeable, reinforcing the understanding that humans are integral to the ecological web.

THE EMERGENCE OF AMBIENT MUSIC AND NEW AGE GENRES

The roots of New Age and ambient music trace back to the mid 20th century, emerging from a confluence of philosophical, cultural, and technological transformations. In the 1960s and 1970s, growing environmental awareness, the popularization of Eastern spiritual philosophies, and the countercultural turn toward inner exploration created fertile ground for new musical languages (Allen & Dawe, 2016). This period marked a shift from music as a structured form to music as a spatial and sensory experience capable of reimagining the human relationship with nature.

The technological innovations of this era played a critical role in shaping these sonic forms. The invention and widespread use of analog synthesizers, particularly the Moog Modular in the late 1960s, offered musicians unprecedented freedom to construct new soundscapes (Pinch & Trocco, 2002). Artists such as Vangelis, Jean Michel Jarre, and Kitaro used these technologies to craft expansive, often ethereal compositions that evoked cosmic or natural imagery. Mike Oldfield's *Tubular Bells* (1973) exemplified a hybrid approach, blending electronic tones with acoustic instrumentation to produce a uniquely atmospheric sound. (Holmes, 2012; Prendergast, 2000).

While New Age music has often been broadly labeled as "relaxation music" or "spiritual background sound" in dictionaries and popular discourse, such definitions tend to oversimplify its aesthetic and conceptual complexity (Holmes, 2012; Prendergast, 2000). Rather than serving merely as an accompaniment for yoga or meditation sessions, New Age compositions frequently reflect deeply personal, exploratory, and genre-defying aesthetics. Prominent composers such as Vangelis, Jean Michel Jarre, and Kitaro effectively employed synthesizers to craft expansive soundscapes that evoke transcendental and natural imagery (Prendergast, 2000; Pinch & Trocco, 2002). Mike Oldfield, another significant figure associated with the genre, utilized synthesizers in early works like *Tubular Bells* (1973), though he later incorporated more acoustic and modern instrumental textures in his subsequent albums (Holmes, 2012).

By the late 1970s, Brian Eno formalized a parallel genre: ambient music. His landmark albums *Ambient 1: Music for Airports* (1978) and *Ambient 4: On Land* (1982) redefined music as environmental texture "as ignorable as it is interesting" (Eno, 1978). For Eno, ambient music did not demand attention but rather altered perception of time and space. Nature sounds were not just decorative, but integral to constructing immersive listening environments (Eno, 1996).

During the 1980s and 1990s, the increasing accessibility of field recording equipment enabled artists to directly integrate unprocessed environmental audio into their works. Pioneers such as Chris Watson, Francisco López, and Annea Lockwood used high-resolution recordings of natural habitatsrivers, forests, deserts as aesthetic material. This practice reflected an emerging bioacoustic consciousness, treating nature's sonic signatures not as background ambiance but as ecological narratives and testimonies (Allen & Dawe, 2016; Franek & Petruzalek, 2024).

From the early 2000s onward, these musical practices gained renewed relevance amid growing climate concerns and digital saturation. The concept of "eco-empathy" emerged in ecomusicology, describing the capacity of sound to evoke emotional resonance with non-human environments. Ambient and New Age music became tools for cultivating this empathy—not through explicit messaging, but through immersive soundscapes that attune listeners to the fragility and rhythms of ecosystems (Franek & Petruzalek, 2024).

Psychological studies further validated this effect. Research by Kaplan (1995) and Alvarsson et al. (2010) demonstrated that exposure to natural sounds can reduce stress, restore attention, and promote psychological well-being. Birdsong, rustling leaves, and flowing water are acoustically associated with safety and shelter—triggers embedded in human evolutionary memory (Lorenzi et al., 2023).

Cultural interpretations also shaped the development of these genres. In the work of Japanese composer Hiroshi Yoshimura, minimalist aesthetics rooted in Zen philosophy and traditional Japanese views of nature found sonic expression. Albums such as *Green* (1986) and *Music for Nine Postcards* (1982) present nature not just as content but as a spiritual presence—an audible space of tranquility and reflection.

Both ambient and New Age music reimagine the possibilities of sonic expression by bridging technology and ecology, emotion and perception. Rather than positioning nature as an external object to be observed or represented, these genres foster immersive listening experiences in which nature is encountered, felt, and internalized. This process not only enriches aesthetic engagement but also reframes listening itself as an ethical

and ecological act.

WHAT MAKES PEOPLE TURN TO THIS MUSIC?

A. MENTAL HEALTH AND ATTENTION RESTORATION

During the COVID-19 pandemic, there was a global surge in anxiety, sleep disturbances, and stress-related conditions. In response, many turned to nature-based ambient music for psychological relief. This trend is supported by the *Attention Restoration Theory (ART)* developed by Stephen Kaplan, which posits that environments that invoke "soft fascination" such as natural scenes or their sonic equivalents can replenish depleted cognitive resources without overstimulation (Kaplan, 1995).

Ambient music often employs soundscapes featuring birdsong, wind, or water, which align with this concept of effortless attention. Studies such as Franek & Petruzalek (2024) have shown that listeners exposed to these naturalistic ambient tracks reported reduced anxiety and increased emotional balance, highlighting the music's role in creating a therapeutic auditory space .

B. TIME AND SPATIAL INTENSIFICATION

Ambient music is described by Cush as "music that's light enough to go unnoticed but distinctive enough to reframe a space". This paradoxical effect allows ambient compositions to function both as background and as immersive experience, thereby modifying the listener's perception of time and space.

Such temporal and spatial fluidity is particularly valued in digital societies, where overstimulation and fragmentation of attention are common. By offering moments of deceleration and introspection, ambient music fulfills a psychosocial need for temporal refuge, as highlighted in recent works examining the aesthetic and psychological functions of slow or minimal music forms (Prior, 2022; Allen & Dawe, 2016).

C. ALGORITHMIC ACCESSIBILITY AND ECONOMIC REACH

The rise of algorithm-driven playlists on platforms like Spotify has significantly boosted the visibility and monetization of ambient and lo-fi music. Editorial playlists such as "Chill Hits" and "Lo-Fi Beats" frequently include ambient tracks, many of which receive millions of streams. For example, lo-fi ambient artist Gibran Alcocer has amassed over 4.9 million followers (Spotify, 2025)

Streaming platforms also incentivize quiet music consumption patterns: the seamless loopability and low lyrical content of ambient tracks encourage longer listening durations, contributing to higher royalty revenue. Studies on streaming economics show that ambient and lo-fi genres have become sustainable income streams for independent musicians, especially when paired with algorithmic exposure (Youtube, 2025).

TABLE 1- CONSUMPTION DATA OF NEW AGE AND AMBIENT MUSIC

Platform	Content Type	Listeners / Views
Spotify	Dreamy Escape	34,300 monthly listeners
Spotify	Heavenly Ambiance	82,600 monthly listeners
Spotify	Lo-fi-Amb by Gibran Alcocer	4.9 million followers
YouTube	Long Ambient Videos	10 million+ views

What stands out in this table is that while niche artists such as Gibran Alcocer are able to reach audiences in the millions, even some classical musicians garner significantly lower streaming numbers compared to ambient and post-minimalist composers (Musicmetricsvault, 2024).

However, this growing interest also has critical ramifications. Spotify's algorithmic playlist policies have been criticized for encouraging the production of "bare" ambient tracks—pieces that lack emotional depth and are designed primarily for background consumption. From an ecomusicological perspective, this trend can be interpreted as a form of *thematic superficiality*, which risks weakening ambient music's original intent: fostering ecological awareness and meaningful engagement with nature. In other words, such utilitarian modes of listening diminish music's potential as a medium for cultivating ethical relationships with the environment, reducing ecological representations to mere consumable soundscapes.

Therefore, it is increasingly emphasized that nature-based sounds should not be valued solely for their functional role in relaxation or mood regulation, but rather appreciated as aesthetic experiences imbued with emotional, ethical, and critical dimensions (Allen, 2016; Nazeri & Sabran, 2023).

CONCLUSION

This study has aimed to demonstrate how bioacoustically-informed sound aesthetics are transformed into artistic, psychological, and ecological experiences through ambient and New Age musical forms. In these genres, nature sounds are not merely passive background elements but function as auditory subjects that mediate the modern individual's reconnection with the natural world. Theoretical frameworks such as R. Murray Schafer's soundscape theory, Stephen Kaplan's Attention Restoration Theory (ART), and Franek and Petruzalek's notion of eco-empathy reveal how this music deepens the relationship between human nature, environmental awareness, and aesthetic perception.

Listening trends on digital platforms such as Spotify and YouTube clearly indicate that ambient and New Age music have moved beyond their status as niche genres to become globally consumed auditory practices. Particularly in the post-pandemic context marked by heightened psychological stress, fragmented attention, and increasing

disconnection from nature due to urbanization these musical forms offer a valued means of inner calm and ecological reconnection. However, the risk of superficiality arising from algorithm-driven production and consumption warrants critical scrutiny.

In this light, ambient and New Age music do more than provide a soothing atmosphere; they create a sonic space that invites ethical reflection and fosters an empathetic ecological consciousness. The artistic recontextualization of nature sounds is not merely an aesthetic choice, but an expression of ecological sensitivity, cultural memory, and ethical awareness. From an ecomusicological perspective, these genres do not merely *represent* nature they re-sensitize the listener to it, facilitate its re-experiencing, and ultimately contribute to the cultivation of a consciousness oriented toward its preservation. Thus, this study demonstrates that bioacoustic musical approaches operate effectively across a broad spectrum from individual psychological well-being to collective environmental awareness.

In the end, sound is more than just a tool for communication it becomes a way to connect human awareness with the natural world. When we listen carefully and with purpose, the act of listening turns into an ethical response, showing that we recognize our connection with the world around us. In this sense, music is not only a cultural product, but also a medium through which we can relate to nature. It helps us reconnect with our place in a world that includes both humans and the more-than-human environment.

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