

Deruan Ombak: A Musical Journey through Inspiration and Process

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Received Date: 20 August 2023

Acceptance Date: 15 September 2023

Published Date: 1 November 2023

Abstract. "Deruan Ombak" is a musical composition that draws its inspiration from the melodic calls of birds in the lush forests of Bukit Sapu Tangan and Bukit Saga, Malaysia. Composed to capture the captivating sounds of these avian creatures, the composition is rooted in the lyrical richness of the Malaysian forest. The core of this research is a detailed analysis of the composition's structure, harmony, rhythm, and thematic elements. Furthermore, it seeks to enlighten the profound influence of the natural environment on the artistic process. "Deruan Ombak" serves as a sonic vessel to bridge the gap between human creativity and the natural world, inviting listeners to appreciate the intricate harmony that exists between the avian soundscape and human creativity. By exploring the intersection of music, literature, and ecology, this study invites readers to forge a deeper connection to the Malaysian landscape while appreciating the profound impact that artistry, inspired by the poetry of Siti Hajar Aznam, can have on environmental awareness.

Keywords: Composition, environment, sonic-sound, nature inspiration, art songs, information management.

1 Introduction

"Deruan Ombak" is an art song composition that I composed as part of my final recital upon completing my Ph.D. program. This composition, "Deruan Ombak," is crafted within the framework of the "Urbanforart" concept. "Urbanforart" is a unique composition concept I developed, drawing inspiration from the pressing issues of deforestation and urbanization that have profoundly impacted Malaysia. In "Deruan Ombak," I explore the interplay between nature and urbanization, capturing the essence of these contrasting forces through music. This composition serves as an artistic expression of the complex relationship between the natural environment and urban development, providing a stimulating perspective on these critical issues in Malaysia. This

revised description provides a clearer context for "Deruan Ombak," its inspiration, and its thematic focus on deforestation and urbanization in Malaysia.

According to the article titled 'Amazon Forest Degradation from Fire and Logging,' a study monitoring ecosystem structure over time revealed that insects emerged as the dominant acoustic markers of degradation, particularly during midday and nighttime hours. Additionally, the study noted a continuous decline in the abundance of nectarivorous birds (D. I. Rappaport, A. Swain, W. F. Fagan, and D. C. Morton, 2022). This observation is attributed to the extensive deforestation occurring in Brazil, which significantly affects the acoustic soundscape of the region. It underscores the idea that the acoustic profile of a forest can vary based on the degree of deforestation in the area.

The exploration of ecosystems and soundscapes without definitive species identification is not a novel concept. As stated in the article, "Most previous efforts to utilize acoustic data for biodiversity monitoring have focused on detecting known vocalizations associated with individual species (17, 18), but there is increasing interest in evaluating the entire collection of signals in a given soundscape to derive measures of ecosystem intactness that include all sound-generating taxa without definitive species identification" (D. I. Rappaport, A. Swain, W. F. Fagan, and D. C. Morton, 2022). Inspired by this approach, I conceived the idea of further exploring and interpreting soundscape data to create musical compositions. To capture the essence of deforestation in my compositions, I faced the challenge of representing this phenomenon in my music. To address this, I chose to compose music based on the simplicity of the recorded soundscape data. The recorded sounds were analyzed to discern patterns based on location. However, it is important to acknowledge certain limitations in both my research and compositions. Firstly, the absence of specific nature identifiers, such as the sound of a particular tree or a specific type of wind, presents a constraint. Additionally, the choice of locations for recording was based on my personal convenience and interest in nature, which may not fully capture the evolving soundscape in nature as urbanization and development progress. Nevertheless, my compositions aim to convey the evolving relationship between human development and the natural world, emphasizing the need for environmental awareness and conservation.

2 Research Methodology

2.1 Qualitative Research

Perform content analysis of the musical score and composition notes to understand the technical aspects of the piece. Analyze any relevant documentation or records related to the composition process. Analyze the musical score and composition notes, focusing on elements that reflect the natural environment.

2.2 Data Analysis

Analyze the transcripts using thematic analysis to identify recurring themes related to the composition process, inspiration, and creative choices. Use content analysis

techniques to examine the musical score and notes for patterns, motifs, or elements that represent the natural environment.

Soundscape

Soundscape is defined as the "acoustic environment as perceived or experienced and understood by a person or people, in context" (ISO, 2014). In recent years, it has gained recognition as a valuable natural resource deserving of management and conservation in protected areas (Brown, 2012). Soundscape holds diverse human and ecological benefits (Dumyahn and Pijanowski, 2011).

When creating compositions inspired by soundscape, a clear understanding of the soundscape itself becomes crucial to the composition process. In this specific research, soundscape refers to the ambient sounds of nature. However, a challenge arises: the soundscape of nature may not always accurately convey the deforestation issue that my composition concept seeks to highlight. Additionally, it may not effectively capture the impacts of deforestation. As Xu and Wu (2021) point out, nature is gradually diminishing under the pressures of tourism and other human activities, and soundscape research in protected areas has grown exponentially in the last two decades.

This research explores the relationship between the study of soundscape and deforestation. It has been substantiated that the soundscape reflects the deforestation issue, revealing a deep connection between soundscape and deforestation. Notably, the deforestation issue has resulted in a degradation of the acoustic sounds produced by insects and animals (D. I. Rappaport, A. Swain, W. F. Fagan, and D. C. Morton, 2022). Therefore, the endeavor to create compositions based on soundscape to illustrate the deforestation phenomenon has been validated.

As Brown suggests, a soundscape is an acoustic environment perceived or experienced, intimately tied to an individual's emotions and experiences. In the context of this research, soundscape refers to the auditory character of an environment, open to interpretation through the composer's imagination and expression.

"A soundscape is an auditory or aural landscape. Like a landscape, a soundscape is simultaneously a physical environment and a way of perceiving that environment; it is both a world and culture constructed to make sense of that world" (Sterne, J. S, 2013). Therefore, for this research, I composed art songs inspired by the soundscape of nature in urban areas in Malaysia. These compositions aim to highlight the auditory landscape of the country. By recording the soundscape of urban nature, I gain insight into the physical environments of the locations I am representing. These recordings are then transcribed and woven into short motifs that form the basis of my songs.

According to Sterne (2013), soundscape, in essence, invokes nature and the boundaries of industrial society. It signifies sounds beyond the urban realm. Thus, while the art songs I have composed incorporate elements of nature, they reflect the proximity of urban spaces. The soundscape data for this project is derived from specific places familiar to me, close to me, and within my reach. The soundscape recordings are based on my own timeframe and do not focus on specific species, animals, or insects. In the context of this research, soundscape refers to audio recordings captured in the jungles or forests I have visited. In conclusion, the recording of nature's soundscape in urban

areas in this research pertains to audio recordings captured using my personal device.

The Imitation Concept: “Urbanforart”

The "Urbanforart" concept is fundamentally rooted in the concept of imitation, encompassing two distinct forms: visual imitation and sound imitation. An understanding of the imitation concept is pivotal in comprehending the nuances of this work. The notion of imitation is closely associated with the term "mimesis," derived from the Greek word originally signifying "imitation," "representation," or "copy," particularly in reference to nature (Braembussche, 2009). In his book, 'Thinking Art,' Braembussche explores the theory of imitation from an artistic perspective, contending that it transcends various art forms, including music. He suggests that the mimetic quality of artwork pertains to how "reality" is represented or portrayed within the work. Here, the definition of "reality" extends beyond strict adherence to the imitation theory. Braembussche argues that what one perceives as their reality may differ from another artist's interpretation.

The core query revolves around the understanding of "reality." In its strictest sense, the theory pertains to the imitation of a reality apprehensible through the senses, a crucial stipulation (Braembussche, 2009). In this research, the employed imitation concept aligns closely with these principles, viewed as an imitation through the lens of my own reality as a composer.

As David Mayernik discusses in his book, 'The Challenge of Emulation in Art and Architecture: Between Imitation and Invention,' there exists a distinction between imitation and emulation in the realms of arts and architecture. Emulation, he asserts, represents a concept encompassing both imitation and innovation, primarily finding its application within the domain of arts. During the Renaissance and Baroque periods, the theory of emulation predominantly manifested in architecture and arts, with artists aiming to infuse their unique expressions into their work.

Within the context of this composition, imitation manifests as the endeavor to capture sounds as faithfully as possible based on audio recordings. Here, imitation motives are further divided into two categories: direct imitation, where the existing sound is replicated precisely, and motives inspired by specific sounds. These motives are not mere transcriptions but rather expressions or inspirations drawn from the sound recordings.

A comprehensive review of the imitation concept is essential for grasping the essence of imitation. Historically, various concepts of imitation have existed. It can encompass exact replication, where the objective is to precisely mimic an existing sound. However, it is crucial to acknowledge that the imitation concept employed in this research may not necessarily replicate the exact sound present in the composition. Nevertheless, it remains firmly within the realm of the imitation concept, representing a form of emulation that is expressed and elaborated in accordance with the composer's artistic preferences.

The Composition Process: Melodic Imitation

Modification in this context involves the reflection and absorption of sound by various surfaces, including the ground and, to some extent, vegetation. Additionally, it encompasses the processes of sound attenuation and refraction as sound travels through the atmosphere along its path from the source to the receiver (Jian and Brigitte, 2015).

The melodies adopted through the imitation approach closely align with the sounds I perceive based on recorded audio. The imitation technique serves as a fundamental method for crafting this art song. Essentially, it involves reproducing the melody in its original form. Transcription is performed meticulously, preserving the pitch and rhythm of the recorded sounds, and translating them into a melodic or motif structure. The resulting motifs are then integrated into a complete composition or song. For instance, the melody depicted below in Figure 1 showcases a transcription of bird sounds transformed into a motif. This motif assumes a central role as the primary theme of the song. Additionally, some imitations are directly integrated into the composition. For instance, the sound of an ambulance is faithfully replicated and incorporated as an integral component of the song.



Figure 1. *The Bird's Motive*

2.3 Data Collection Procedure: The transcription

The bird's motives were transcribed based on recordings of its chirping. The bird's vocalizations spanned a duration of 1 minute and 32 seconds. Notably, the pitch of the bird's chirps remained consistent throughout the recording. However, there were variations in the rhythm and pulse of the bird's sounds. To address this, I opted to divide the sound segments based on the calculated pulse patterns derived from the bird's vocalizations

2.4 Deriving Musical Ideas for the Art Song Composition

In the process of conceptualizing the art song composition, I encountered a unique challenge—how to address repetitive pitches within the bird's vocalizations. To tackle this issue, I developed a numerical solution. My approach involved a detailed analysis of the recorded data, focusing on the frequency of pitch repetition, particularly in the context of the birds' chirping.

For instance, during the analysis, I observed that the birds frequently produced sounds at the same pitch. However, the distinction lay in the number of times these

sounds repeated. The repetitions varied, such as 8 times without a pause, followed by 9 times, 7 times, 4 times, 1 time, 7 times again, 7 times once more, 4 times, and 2 times.

To synthesize these observations into a coherent framework, I devised a numerical system, whereby each number corresponded to a specific musical note. In this system, 1 represented C, 2 represented D, 3 represented E, 4 represented F, 5 represented G, 6 represented A, and 7 represented B. For instances where the numbers exceeded the conventional scaling system of 1 to 7, I made adjustments: 8 was mapped to 1 (C) to signify an octave, while 9 became a tension note, equivalent to 2 (D) as the second note in the scale.

These numerical representations were subsequently organized and termed "melodic numerical." They served as the foundation for determining the number of musical phrases, establishing the time signature, and determining the overall composition's note count. This innovative numerical approach not only addressed the challenge of repetitive pitches but also played an important role in shaping the structure and composition of the art song.

2.5 The Awareness of Environmental Concerns

The Deforestation Issue

In the pursuit of addressing the pressing issue of deforestation, the composition takes on a nuanced approach to convey a profound message. The subtlety in highlighting this crucial environmental concern is exemplified right from the composition's introduction, where a deliberate choice was made to commence the song with repetitive imitations of the bird's sound, meticulously played on the piano.

This musical decision serves as a metaphorical representation of nature's delicate equilibrium and the harmony that can be found within it. By emulating the bird's song, the composition pays homage to the intricate melodies present in the natural world. It underscores the significance of these melodies, which often go unnoticed in the cacophony of modern life.

Moreover, the title itself, "Deruan Ombak," which translates to "the roar of the waves," carries profound symbolism. While it alludes to the majestic power of the ocean, it also serves as a reminder of the interconnectedness of various elements within the ecosystem. The waves, like the melodies of birds, are integral parts of our environment, and their preservation is essential for the well-being of our planet.

In essence, "Deruan Ombak" is not merely a musical composition but a piece of art designed to raise awareness about the fragile balance of nature, the perils of deforestation, and the need to protect our precious natural heritage. It invites listeners to reflect on the intricate beauty of the natural world and to contemplate the impact of human actions on the environment. Through the language of music, it advocates for a harmonious coexistence between humanity and nature, urging us all to be mindful stewards of our planet.

Musical Elements and Their Significance in the Composition

The poetry underlying the composition beautifully paints the imagery of waves in the sea. However, the core motifs of this song draw inspiration from the enchanting sounds of nature, specifically the melodious calls of birds and the rhythmic chirping of crickets. It's essential to note that this composition is a meticulous and faithful imitation of the avian soundscape. The emulation commences within the piano accompaniment.



Figure 2: The Imitation of the bird

In **Figure 2**, we witness a precise replication of the avian sounds on the treble clef. The transcription captures the bird's motifs, faithfully represented in the first and second bars. These motifs are then expanded upon and reiterated in bars 3 and 4. Additionally, the bass clef on the piano serves as a transcription of the cricket sounds, also sourced from our recordings.

The melody initiates at letter A, where the cello takes up the mantle of imitating the bird's calls. The cello's melody embarks with a C note, culminating with a Cb. It's at this juncture that the soprano enters the composition, assuming the role of a distinct bird responding to the initial bird's call. The repetitive use of the note C, which concludes with the enigmatic Cb, serves as a question posed by the first melody. The soprano subsequently provides the answer, commencing with an E note. The cello's melody mirrors the bird's recorded sounds, replicating their repetitive nature. This musical exchange between the soprano and the cello represents a conversation between two birds, gradually reaching a mutual understanding.

However, in the B section, a sense of inquiry returns to the bird's interactions. The imitative melodies derived from the birds remain unresolved queries. By bar 18, a semblance of understanding is established, only to be followed by another period of suspense. In bar 19, the soprano's melody predominantly oscillates between E and F, conveying a sense of agitation or anticipation. Simultaneously, the cello, representing the other bird, adheres to the same note, intensifying the emotional conflict. This conflict ultimately reaches its conclusion in bar 27.

During the C section, the avian sounds are exclusively expressed through the piano. The soprano's melody is drawn from the sound of the wind, meticulously

captured in our recordings. The D section harks back to my initial composition, employing an intuitive approach on the piano. This section was crafted as an artistic expression of my intuition as a composer, introducing a cheerful twist to the composition. The soprano's melody also embraces an interpretative approach, envisioning the sounds of the rushing wind. The poetry in this section comprises repetitive phrases such as 'angin berlalu,' meaning 'the wind rushes by.' Both the piano and soprano melodies ingeniously interpret the concept of a rushing wind.

The E section introduces the sound of an ambulance, a direct imitation captured in Bukit Saga, situated in close proximity to Hospital Ampang. This choice emphasizes the intriguing juxtaposition of the lush jungle environment and the urban soundscape, a hallmark of the composition's thematic depth.

At bar 86, the composition reaches its crescendo, and the word 'Deruan' is introduced, signifying the essence of the composition's title, "Deruan Ombak." The melody culminates with a callback to the main theme from my prior composition, "Seindah Lautan." This thematic connection was consciously incorporated to infuse a pop composer's signature sound into this composition, delivering a sweeter and more gratifying conclusion. This addition holds personal significance for me as the composer and serves as a homage to my own musical journey.

The following user interface is the security activity interface. The interface uses a scrollable layout view that enables users to scroll through from top to bottom. The security activity interface contains a list of security and emergency parameters.

3 Results and Discussion

In the pursuit of addressing the pressing issue of deforestation, the composition "Deruan Ombak" adopts a nuanced approach to convey a profound message. It subtly highlights this environmental concern right from the composition's introduction, beginning with the meticulous imitation of bird sounds on the piano. This musical choice symbolizes the delicate equilibrium and harmony found in nature. By emulating bird songs, the composition pays homage to the intricate melodies of the natural world, emphasizing their significance, often overlooked in the noise of modern life.

Moreover, the title, "Deruan Ombak" ("the roar of the waves"), carries profound symbolism, alluding to the power of the ocean and the interconnectedness of elements within the ecosystem. The waves and bird melodies are integral components of our environment, and their preservation is vital for our planet's well-being.

In essence, "Deruan Ombak" is not merely a musical composition; it's a piece of art designed to raise awareness about the fragile balance of nature, the perils of deforestation, and the need to protect our natural heritage. It encourages listeners to reflect on the intricate beauty of the natural world and contemplate the impact of human actions

on the environment. Through music, it advocates for a harmonious coexistence between humanity and nature, promoting responsible stewardship of our planet.

Musical Elements and Their Significance:

The composition's core motifs draw inspiration from the sounds of nature, particularly the melodious calls of birds and rhythmic chirping of crickets. This composition meticulously imitates the avian soundscape. The piano faithfully replicates bird motifs in the treble clef, and the bass clef represents cricket sounds, sourced from recordings. The cello and soprano engage in a musical conversation, with the cello imitating bird calls and the soprano responding. The repetitive use of certain notes symbolizes a dialogue between two birds, gradually reaching mutual understanding. The composition's structure includes moments of inquiry, suspense, and resolution, mirroring the dynamics of nature. The bird interactions convey unresolved questions, followed by periods of anticipation and emotional conflict. Sections of the composition creatively interpret natural elements, such as the wind, and introduce urban sounds like ambulance sirens. These additions add depth and contrast, highlighting the juxtaposition between the natural and urban environments. The composition reaches its crescendo with the introduction of the word "Deruan," signifying the essence of the title. It concludes with a callback to the composer's previous work, "Seindah Lautan," adding a personal touch to the composition. The composition is a multifaceted musical journey that combines imitation, interpretation, and inspiration, advocating for a harmonious coexistence with nature. It raises awareness about deforestation and encourages reflection on our connection to the natural world, leaving the audience with a melody of hope and awareness.

4 Conclusion

In the intricate tapestry of "Deruan Ombak," we find the harmonious union of nature's melodies and human creativity. This composition, born from the ethereal sounds of birds and the rhythmic cadence of crickets, is a testament to the power of musical imitation, interpretation, and inspiration. Throughout the journey of this composition, we embark on an auditory voyage that mirrors the delicate balance of our natural world. The avian voices, faithfully replicated in the piano's accompaniment, invite us to listen more closely to the unassuming yet captivating melodies that surround us daily. As the cello and soprano engage in a musical conversation, they reflect the interconnectedness of nature, where one voice responds to another in a harmonious exchange.

The composition's flow, akin to the waves of the sea, mirrors the cyclical patterns of nature. We observe moments of inquiry, suspense, and resolution, mirroring the intricate interplay of life in the wild. In the C section, the wind's interpretation carries us away, reminding us of the poetic whispers of nature's secrets. The introduction of the ambulance's sound challenges our perception of the natural world, juxtaposing the jungle's serenity with the urgency of urban life. Yet, even in this contrast, "Deruan Ombak" continues to speak to our innate connection to nature, reminding us that the urban and the wild are not separate realms but interconnected aspects of our shared environment.

Finally, as the composition reaches its crescendo, the word "Deruan" graces our ears, encapsulating the essence of the composition's title. This crescendo also marks a poignant return to a familiar theme, "Seindah Lautan," a nod to the composer's own artistic journey and signature sound. In "Deruan Ombak," we encounter more than just music; we find a powerful statement on our relationship with the natural world. It beckons us to pause, listen, and contemplate our place within the intricate melodies of the environment. As we immerse ourselves in the harmonious blend of imitation, interpretation, and inspiration, we are reminded of our responsibility as stewards of the Earth.

"Deruan Ombak" is not merely a composition; it is a call to awareness, an ode to the environment, and a testament to the creative possibilities that emerge when we harmonize with the world around us. It invites us to reflect on our connection to nature, the impact of deforestation, and the need for harmonious coexistence. In its resounding final notes, "Deruan Ombak" leaves us with a lingering melody—a melody of hope, of awareness, and of the enduring beauty of our natural world.

Acknowledgments

We would like to express our sincere gratitude to College of Creative Arts (CCA) Universiti Teknologi Mara (UiTM), for their generous financial support, which made the publication of this manuscript in the conference proceedings possible. Their commitment to advancing academic research is truly commendable, and we are honored to have received their sponsorship.

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