



# Unlocking the ecotourism environment: exploring music as a tool for cultural preservation and sustainable tourism development



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## ABSTRACT

This qualitative research study investigates the role of music as a catalyst for fostering sustainable tourism practices and contributing to the long-term social, economic, and environmental well-being of ecotourism destinations. The focus is on Truthung's musical performances in Magelang, which serve as reflections of local tourism potential and the surrounding natural environment, including the Borobudur Temple and the Merapi, Merbabu, Andong, Sumbing, and Menoreh Mountains. Drawing upon the interdisciplinary concept of ecomusicology, this study employs various data collection methods, including observations, interviews, and documentation. By examining the growth and development of Truthung Music performances, with a particular emphasis on key figures such as Sutanto Mendut and farming artists from Merbabu, this research sheds light on the transformative power of music within the local community. The findings reveal that Truthung Music not only represents the rich local environment and culture within tour packages in Magelang Regency but also emphasizes the broader interplay between nature and culture. "Village Civilization" provides clear evidence of the relationship between nature and culture, showcasing the local potential of the Lima Gunung arts community. This research addresses a gap in the literature by examining the specific role of music in the context of ecotourism and its contributions to sustainable practices. The implications extend beyond the local community, providing valuable insights for policymakers, tourism professionals, and cultural preservationists regarding the significant role that music can play in promoting sustainable tourism and preserving the cultural heritage of ecotourism destinations.

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## 1. Introduction

Warangan is a village situated on the picturesque slopes of Mount Merbabu, recognized for its cultural heritage and dynamic art performances that take place during significant village events including *aum tandur*, *aum panaen* (harvest), and *nyadran kali* [1]–[5]. These occasions hold great importance in the village as they provide opportunities for the community to come together and showcase their traditions through engaging artistic expressions [6]. Warangan's reputation for rich traditions and vibrant art performances has been established through the consistent celebration of these events, which serve as platforms for the preservation and promotion of the village's cultural legacy. The art performances during *aum tandur*, *aum panaen*, and *nyadran kali* capture the essence of Warangan's cultural identity, reflecting the deep-rooted customs and artistic talents of its residents. Through these events, Warangan has gained recognition as a hub for cultural heritage, fostering a sense of pride and unity among its inhabitants while also captivating the interest of visitors who seek to immerse themselves in the village's vibrant traditions. The creation of art in Warangan is deeply intertwined with the

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role of local community artists. Culturally, the process of making art in Warangan is closely connected to the involvement and contributions of artists from the local community. In simple terms, the art produced in this area is greatly influenced by the ideas, skills, and perspectives of the artists who reside in Warangan. The local community artists hold a crucial role in shaping artistic expression and defining the cultural identity of the region, as their experiences, traditions, and values are reflected in their artwork. As a result, the art becomes a representation of their creativity, heritage, and shared vision, making it an integral part of their cultural tradition [7].

The importance of local artists in cultural production and the preservation of artistic heritage is elucidated in a study conducted by Chavis and Wandersman [8]. They explore the concept of a sense of community, which underscores the significance of community participation and involvement in various aspects, including cultural and artistic activities. Chavis and Wandersman found a strong correlation between a sense of community and increased engagement in artistic endeavours, such as local art projects and events. This suggests that the active participation of local artists is crucial for the development and continuity of artistic practices within a community. Furthermore, Gilchrist and Svanberg elaborate on the role of community artists in safeguarding cultural heritage [9]. Their study reveals that local artists often serve as the primary custodians of traditional artistic practices and techniques, passing down their knowledge and skills to future generations. According to Gilchrist and Svanberg, community artists act as cultural ambassadors, ensuring the perpetuation and vibrancy of local artistic traditions. Additionally, Tiller and Wong demonstrate in their respective studies that the involvement of local artists can enhance community cohesion, foster social interaction, and cultivate a sense of belonging. This signifies that local community artists not only contribute to the artistic landscape but also play a pivotal role in strengthening social bonds and promoting the well-being of the community through their creative expressions [10], [11]. This statement emphasizes the fundamental connection between the production of art and the involvement of artists within a specific community. This notion suggests that local community artists play a crucial role in shaping and contributing to the artistic landscape of a particular area.

Trunthung Music is an indigenous art form that originated in Warangan Hamlet. It revolves around the trunthung musical instrument, which serves as its central component. Initially, Trunthung was primarily used as an accompaniment for the Soreng Dance. Over time, however, local artists' creativity and dedication have transformed Trunthung into a unique musical performance characterized by its distinctive rhythmic patterns. Trunthung Music holds significant cultural value within the local community [3]. Nevertheless, further research is necessary to delve into its historical development, cultural context, and distinctive musical elements. Since its inception in 2002, the evolution of Trunthung Music has become a source of pride for Magelang Regency. This genre frequently takes center stage during various events held within the Borobudur Temple tourist complex. Ecotourism, which entails visiting natural areas to appreciate their biodiversity and explore the cultural manifestations of local communities from both past and present perspectives [12]–[14], plays a vital role in promoting the development of Trunthung Music. Cultural manifestations associated with Trunthung Music encompass a wide range of practices, including rituals, customs, habits, and the arts [3]. These diverse expressions contribute to the cultural identity and heritage of the region.

Many studies on ecotourism have been carried out; research conducted by Pookhao Sonjai discusses the concept of community-based ecotourism (CBET) and its objective to empower local communities through active participation. Sonjai presents a case study from Thailand as an illustrative example of a developing country where sustained support for local communities is necessary. The study concludes that CBET holds the potential to empower local communities and foster sustainable development. However, Sonjai also highlights the challenges and limitations associated with CBET, including the risk of commodifying local communities and the need for long-term support and capacity building. The research findings suggest that a more comprehensive and participatory approach is essential to ensure the success of CBET initiatives [15]. Reimer's research investigates the social aspects of sustainable ecotourism through a community-based project situated in the rainforests of southwest Cambodia. The study employs Honey's analytical framework [16] to assess the concept of "authentic" ecotourism and

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emphasizes the significance of the local context in ecotourism management. Reimer's findings indicate that the Chiphat community-based ecotourism project in the rainforests of southwestern Cambodia has generated positive outcomes for the environment, local culture, and livelihoods. Notable impacts include a decrease in logging and hunting activities, heightened environmental awareness, documentation and preservation of local culture, and substantial livelihood improvements for both CBET members and the broader community [17].

Sosa's research aims to identify the essential factors that contribute to achieving broader economic, social, and environmental objectives in ecotourism management through community participation. This study specifically compares and describes the distinctions between two local cooperatives in the coastal state of Nayarit, Mexico. The research concludes that the level of benefits obtained can be reasonably attributed to a set of six key factors. Sosa's findings suggest that community participation in ecotourism management can enhance the attainment of its goals. The study identifies six crucial factors for successful community participation and empowerment in terms of community engagement, namely: evaluation of local assets, perception of individual and community benefits, leadership, space for learning, shared vision, and linkages with other stakeholders. The analysis reveals that stronger organizations are those that exhibit higher indicators of active community participation and empowerment [18]. Previous research exhibits a noticeable distinction in terms of objectives. Specifically, this study seeks to elucidate the portrayal of cultural phenomena in Truthung Music performances, which serve as one of the tourist attractions in Magelang Regency. The concept of ecomusicology [19]–[21] is employed to analyze the presentation of Truthung Music, considering three key aspects: music, culture, and environment. Ecomusicology explores how Trunthung music interacts with the natural environment and contributes to the overall soundscape of ecotourism destinations [22]. It considers how the rhythms, melodies, and instrumentation of Trunthung music reflect and respond to the surrounding natural elements such as forests, rivers, or wildlife.

Additionally, it investigates how the inclusion of Trunthung music in ecotourism experiences can enhance visitors' sensory connection with the environment. Meanwhile, eco-musicology from a cultural perspective questions how Trunthung's music represents and preserves the cultural heritage and identity of the local community [23]. It investigates how Trunthung music reflects the traditions, values, and history of the community and contributes to the cultural authenticity of the ecotourism destination. Ecomusicology also explores how Trunthung music performances can engage visitors in experiencing and understanding the local culture and foster cross-cultural exchange [24]. Ecomusicology also investigates how Trunthung music can be a means of community empowerment and sustainable development within the context of ecotourism [25]. It examines how the involvement of local community members in Trunthung music performances and related activities can create economic opportunities, promote cultural pride, and contribute to the overall well-being of the community.

Ecomusicology also explores the potential of Trunthung music to raise awareness about environmental conservation and sustainable practices among visitors. The novelty of this study lies in showcasing that tourist attractions encompass not only tangible assets but also encompass culture and art [26], which can be incorporated as integral components of ecotourism. This research contributes to the understanding that tourist attractions encompass not only physical wealth but also encompass culture and art, thereby serving as integral components of ecotourism. By examining the intricate relationship between natural phenomena, specific arts, and environmental variables, this study adopts an ecological approach that highlights the interconnectedness and interdependence of culture and nature [27]. The findings of this study will provide insights into the potential of integrating cultural phenomena, such as Truthung Music, into ecotourism offerings, thereby enhancing the preservation of cultural heritage and fostering sustainable tourism practices. This in-depth study of the interrelation between natural phenomena and certain arts in the formal area with environmental variables is then considered as a characteristic of the ecological approach, see Fig 1.

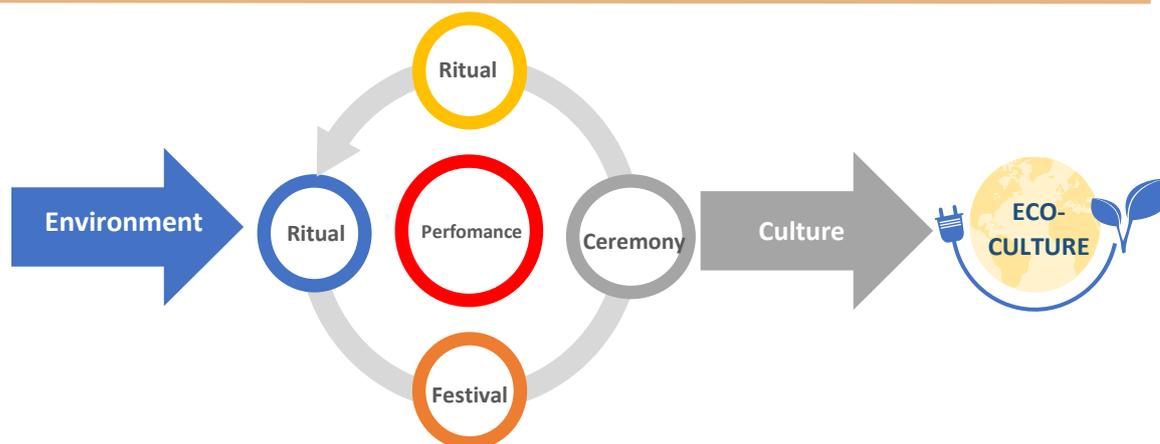


Fig 1. Concepts in Ecological Approaches (Environment, Art, Culture)

## 2. Method

This article presents a qualitative research study aimed at exploring the role of Truthung's music performance as a local tourist attraction in Magelang Regency. The research methodology involved multiple data sources and rigorous data collection techniques to ensure the validity and reliability of the findings. The research utilized a combination of primary and secondary data sources to obtain comprehensive insights. Primary data was collected through in-depth interviews with a diverse range of artists from the Lima Gunung Community. These artists were selected based on their expertise and involvement in Trunthung Music performances. Secondary data was obtained from a literature review encompassing various sources, such as academic publications, reputable online platforms, and social media, to gather relevant background information. To capture a holistic view of Truthung Music performances, multiple data collection techniques were employed. Firstly, extensive observations were conducted during live performances and events at the Borobudur Temple tourist complex, allowing for the documentation of various aspects of the musical performances. Additionally, semi-structured interviews were conducted with the selected artists to gain insights into their perspectives, experiences, and contributions to the development of Trunthung Music. The interviews were conducted in a respectful and collaborative manner, enabling the researchers to gather rich qualitative data. Furthermore, existing print media and personal documentation belonging to the artists were carefully examined to supplement the data collected through observations and interviews.

To overcome the weakness of the current study, the research also incorporated feedback and input from tourists who had experienced Truthung Music performances in Magelang Regency. After attending live performances and events, the researchers engaged in informal conversations with the visitors, seeking to understand their impressions, emotions, and overall experiences. By including the perspectives of tourists, the study gains valuable insights into the impact of Truthung Music on attracting and engaging visitors to the region. This addition ensures a more comprehensive analysis of the music's role as a local tourist attraction and enhances the overall validity and reliability of the findings. By triangulating data from multiple sources, including artists, observations, literature review, and tourist feedback, this qualitative research study offers a nuanced and holistic understanding of the significance of Truthung's music performance in promoting tourism in Magelang Regency.

Thematic analysis was employed to analyze the collected data and identify recurring themes and patterns. The researchers immersed themselves in the data, carefully coding and categorizing the information obtained from interviews, observations, and documentation. The analysis process involved iterative readings of the data to ensure thorough understanding and identification of key findings. The researchers maintained transparency and rigor throughout the analysis by maintaining detailed records and discussing emerging themes collaboratively. The study drew on the framework of ecomusicology theory to explore the interconnections between music, culture, and the environment. By adopting this theoretical lens, the research

aimed to examine how Truthung Music performances reflect and interact with the local tourism potential and the natural environment in Magelang Regency. The concepts of music, culture, and nature were integrated into the analysis, facilitating a comprehensive understanding of the phenomenon under investigation [28], see Fig 2.

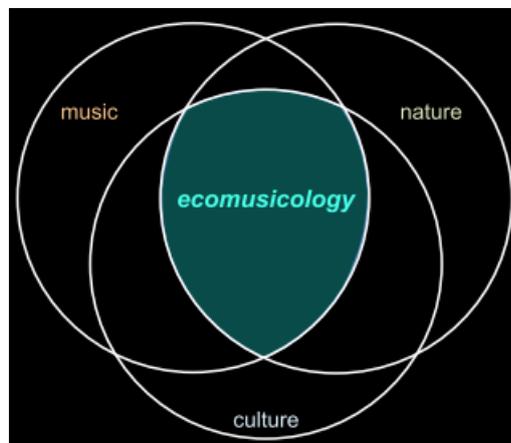


Fig 2. Research concepts in ecomusicology: music, culture, and nature [28]

### 3. Results and Discussion

#### 3.1. Trunthung and Borobudur Jazz Festival 2016

The Borobudur Jazz Festival (BJF) in 2016 was a remarkable event held at Aksobya Park, Borobudur Temple, Magelang Regency, showcasing a unique blend of jazz music against the backdrop of this awe-inspiring architectural heritage. The festival aimed to combine the allure of Borobudur Temple with the captivating sounds of jazz, creating a captivating cultural experience for both local and international audiences. The inclusion of Truthung Music as one of the featured performances at the 2016 Borobudur Jazz Festival (Fig 3) added a distinctive touch to the event. Borobudur Temple, recognized as one of the wonders of the world, served as an ideal setting for the festival. Its rich historical and cultural significance attracted visitors from around the globe, providing a magnificent backdrop for the musical performances. The festival organizers aimed to harness the temple's charm and cultural heritage to create a unique fusion of jazz music and traditional elements. Truthung Music, deeply rooted in the local culture, played a pivotal role in the festival's lineup. This traditional musical performance, characterized by its rhythmic patterns and the primary use of the trunthung instrument, captivated the audience with its distinctive sound. It served as a representation of the region's cultural identity and heritage.

The selection of Truthung Music for the Borobudur Jazz Festival was carefully considered to provide a harmonious fusion of traditional and contemporary elements. By incorporating this local musical tradition into the festival, the organizers aimed to showcase the cultural diversity and artistic expressions of the region, enhancing the overall experience for festival attendees. Furthermore, the inclusion of Truthung Music at the Borobudur Jazz Festival provided an opportunity for the preservation and promotion of local cultural traditions. By featuring this traditional musical performance on an international stage, the festival contributed to the revitalization and recognition of indigenous arts. The fusion of jazz and Truthung Music created a unique and immersive experience, fostering a deeper appreciation for the cultural heritage of Magelang Regency. The enthusiastic response from both the local community and festival attendees affirmed the success of incorporating Truthung Music into the Borobudur Jazz Festival. The captivating performances resonated with the audience, creating a vibrant and memorable atmosphere. The inclusion of Truthung Music not only enriched the festival's program but also served as a catalyst for cultural preservation, ensuring the continuity and appreciation of this traditional art form. The Borobudur Jazz Festival in 2016 successfully blended the enchanting ambience of Borobudur Temple with the captivating sounds of jazz music, and the inclusion of Truthung Music further enhanced the cultural experience. By

celebrating the rich cultural heritage of the region and promoting local artistic traditions, the festival contributed to the preservation and sustainable development of Magelang Regency's cultural tourism sector.



**Fig 3.** Trunthung Music Performance at Borobudur Jazz Festival 2016

This jazz event holds a special significance as it brings together a number of top Indonesian musicians and artists, including members of the renowned Krakatau Reunion such as Dwiki Dharmawan, Gilang Ramadhan, Trie Utami, Indra Lesmana, Pra Budidharma, and Doni Suhendra. Adding to the international caliber, they are accompanied by Jeff Lorber & Friends, creating a truly exceptional musical experience. Dwiki Dharmawan, the music director of the Borobudur Jazz Festival, emphasizes the significance of the 2016 edition, which introduced a new concept related to ecotourism.

*The year 2016 brought a new concept related to ecotourism where musicians performed against the background of the Borobudur Temple which is an icon of Central Java, even Indonesia. It is hoped that this performance can become a tourist attraction as a complement to the beauty of the Borobudur Temple. Every event that is held always collaborates with hotels and travel parties, so that tourists can enjoy jazz music in the most historic buildings in Indonesia" (Dwiki Dharmawan, 2016)*

In 2016, the festival took place against the breathtaking backdrop of the Borobudur Temple, an iconic landmark not only in Central Java but also throughout Indonesia. The aim was to transform this musical performance into a tourist attraction that complements the beauty and historical significance of Borobudur Temple. Collaboration with hotels and travel agencies ensured that visitors could enjoy jazz music in one of the most remarkable and culturally rich settings in Indonesia. It is worth noting that the concert received full support from the Ministry of Tourism, underscoring its importance and potential impact. The involvement of government authorities, including the President of the Republic of Indonesia, alongside various ministries and governors of DIY and Central Java, further highlights the significance of the event. By utilizing the power of music and cultural events, the Borobudur Jazz Festival aimed to promote Borobudur Temple as more than just a location for rituals and spiritual tourism. The festival sought to showcase Borobudur as a multifaceted destination encompassing music, sports, culture, film, and other forms of artistic expression.

This comprehensive approach aimed to enhance the temple's recognition as a world cultural heritage site and expand its appeal to a wider range of visitors. To ensure the success of the event, comprehensive evaluations were conducted, considering factors such as audience engagement, feedback from participants, and the long-term impact on the promotion and preservation of Borobudur Temple. These evaluations provided valuable insights into the effectiveness of the festival in achieving its objectives, engaging different stakeholders, and contributing to the sustainable development of the region. By addressing these aspects, the Borobudur Jazz Festival not only celebrated jazz music but also acted as a catalyst for cultural exchange, tourism development, and the preservation of historical and natural heritage. The event's unique combination of music, cultural significance, and stunning surroundings

exemplified the potential of ecotourism to create memorable experiences while promoting sustainable practices. The concert, which is fully supported by the Ministry of Tourism, is expected to be able to promote Borobudur Temple as a world cultural heritage. So that Borobudur is not only a location for rituals and spiritual tourism but also music, sports, culture, film and so on. This event was also attended by the President of the Republic of Indonesia along with the ministries and governors of DIY and Central Java, see Fig 4.



**Fig 4.** President Joko Widodo at Borobudur Temple, Magelang, Central Java, Friday, accompanied from left to right: Minister of Tourism Arief Yahya, Governor of DIY Sri Sultan Hamengku Buwono X, and Governor of Central Java Ganjar Pranowo (BIRO PERS SETPRES/RUSMAN)

### 3.2. Trunthung and Borobudur International Arts and Performance Festival (BIAPF) 2019

The series of BIAPF events which were held on 5-7 July 2019, took place around Borobudur Temple. The opening ceremony occurred at Lumbini Park, Borobudur Temple, setting the stage for an exciting and culturally diverse festival. The 2019 BIAPF showcased traditional arts from 35 districts/cities in Central Java, providing a platform for local artists to exhibit their talents and highlight the unique cultural heritage of each region. The festival also featured tourism exhibitions that showcased the attractions and highlights of these regions, promoting local tourism and creating opportunities for economic growth. The event went beyond Central Java, incorporating art performances from various regions of Indonesia, including Aceh, South Sumatra, Banten, DKI Jakarta, West Java, DIY, East Java, South Sulawesi, and NTB. This broader representation celebrated the rich cultural diversity of Indonesia, bringing together artists from different backgrounds and traditions to create a vibrant and inclusive festival atmosphere. Additionally, the festival embraced international collaborations by hosting performances from Mexico, Spain, and Hungary. These international contributions added a global dimension to the event, fostering cross-cultural exchanges and promoting Indonesia's cultural diplomacy on an international stage.

The performances took place over the course of three days at multiple locations, including Borobudur Lumbini Park, Pawon Temple, and Wanurejo Village in Borobudur. This multi-venue approach allowed visitors to experience the festival in various settings and provided opportunities for local communities to actively participate and engage with the performances. Among the local arts showcased at the opening ceremony was Trunthung music, a beloved and distinctive art form that holds great pride for the people of Magelang Regency. Trunthung music, recognized as a typical art of Magelang Regency, combines the elements of music, culture, and the environment, creating a unique and immersive experience. The melodies and rhythms of Trunthung music reflect the lives of farmers and the natural conditions found in the mountains, symbolizing the harmonious connection between the local community, their cultural heritage, and the surrounding environment. By presenting Trunthung music at the opening ceremony, the festival highlighted the local potential and artistic richness of Magelang Regency. It aimed to showcase not only the architectural wonders of Borobudur Temple but also the cultural depth and artistic expressions that are deeply rooted in the region.

The incorporation of Trunthung music emphasized the festival's commitment to promoting local arts and culture as a significant component of the overall event experience. The BIAPF events held in 2019 provided a platform for showcasing traditional arts from Central Java and beyond, featuring international collaborations and celebrating the rich cultural diversity of Indonesia. The inclusion of Trunthung music emphasized the festival's focus on local arts and culture, creating a harmonious blend of music, culture, and the natural environment. Through this multifaceted approach, the festival aimed to promote tourism, economic growth, and cross-cultural exchange, while also fostering a sense of pride and appreciation for the region's cultural heritage.

By examining Fig. 5 (a) Trunthung in Ritual Performance at Warangan Hamlet and Fig. 5 (b) Trunthung Music Performance as an Opening Ceremony in the International Festival at Borobudur Temple, it becomes apparent that Trunthung Music has emerged as a significant local potential within the realm of ecotourism offerings. These visual representations provide compelling evidence of the impact and recognition of Trunthung Music, contributing to the distinct identity of Magelang Regency. The development of Trunthung Music has resulted in the creation of a monumental artistic achievement, known as Music Trunthung, which has successfully collaborated with various genres and musical groups. Notably, Trunthung performances have reached regional and national stages, indicating its growing recognition and popularity.



Fig 5. (a) Trunthung in Ritual Performance at Warangan Hamlet and (b) Trunthung Music Performance as an Opening Ceremony in the International Festival at Borobudur Temple

Upon closer examination, it becomes evident that one of Trunthung's notable musical idioms lies in its flexibility, allowing it to seamlessly collaborate with several genres. Particularly noteworthy is the melodic idiom, which serves as a transition from the Trunthung musical instrument itself, see Fig 6. This musical flexibility opens up exciting possibilities for Trunthung Music to engage with diverse musical styles, enriching its repertoire and broadening its appeal. Fig 8 is the beat pattern of the Trunthung instrument (Musical Idiom).

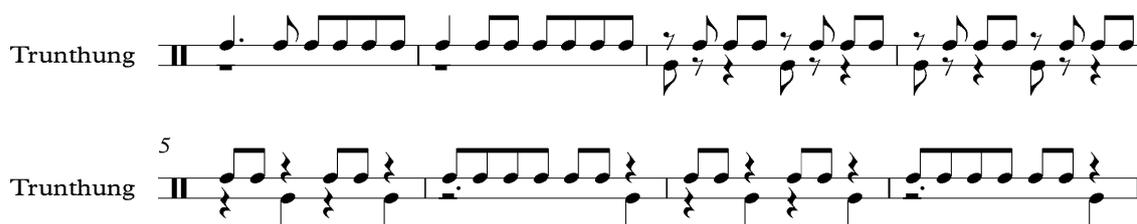


Fig 6. The beat pattern of a Trunthung Instrument (Musical Idiom)

The significance of Trunthung's beat pattern in the context of traditional art musical expression lies in its unique rhythmic structure and its ability to convey cultural and artistic elements. Trunthung, as a traditional musical idiom, is characterized by its distinct beat pattern, which plays a crucial role in shaping the overall musical experience (Fig 8). The beat pattern of Trunthung reflects the cultural identity of the community or region from which it originates. It carries the essence of local traditions, customs, and values, serving as a sonic representation of

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the cultural heritage. The specific rhythmic patterns and structures found in Trunthung's beat pattern are deeply rooted in the history and social fabric of the community, connecting individuals to their cultural roots and fostering a sense of belonging.

The beat pattern of Trunthung contributes to the overall aesthetic quality of the music. It adds a distinct rhythmic flavor that sets Trunthung apart from other musical genres or styles. The arrangement and interplay of beats create a specific rhythmic groove, generating a captivating and engaging musical experience. The rhythmic complexity and intricacy of Trunthung's beat pattern can evoke a range of emotions and enhance the expressive power of the music. Trunthung's beat pattern serves as a means of communication and storytelling within the musical context. The rhythmic structure, accentuations, and variations can convey messages, narratives, or depict specific scenes or events. Through the interplay of beats and patterns, Trunthung musicians can communicate emotions, depict natural elements, portray cultural stories, or evoke specific atmospheres, allowing the audience to connect with the music on a deeper level.

Trunthung's beat pattern carries the legacy of generations of musicians and represents a living tradition. By maintaining the specific beat pattern and passing it down through oral tradition or formal education, communities ensure the preservation of their cultural heritage. The adherence to the traditional beat pattern helps maintain the authenticity and integrity of Trunthung as a distinct art form, enabling future generations to engage with their cultural roots and carry the tradition forward. The significance of Trunthung's beat pattern in the context of traditional art musical expression lies in its role in preserving cultural identity, enhancing musical aesthetics, facilitating communication and storytelling, and ensuring the continuity of the traditional art form. It is through the unique beat pattern that Trunthung music becomes a vessel for cultural expression, connecting individuals to their heritage and fostering a sense of community and pride.

The significance of Trunthung's beat patterns in the context of music education is multifaceted and includes various aspects that contribute to the development and enrichment of students' musical understanding and skills, such as rhythmic foundations, cultural awareness, artistic expression, ensemble and collaborative skills, cognitive development, and cross-cultural appreciation. On the aspect of rhythmic foundations the Trunthung beat pattern serves as a foundational element for developing rhythmic skills. By studying and practicing the intricate rhythms and patterns of Trunthung, students can enhance their sense of timing, pulse, and coordination. The exposure to different rhythmic structures expands their rhythmic vocabulary and helps them develop a strong rhythmic foundation, which is essential for musicians across various genres and styles. On the aspect of cultural awareness Incorporating, trunthung's beat pattern in music education provides students with an opportunity to explore and appreciate the cultural heritage associated with the musical idiom.

Studying Trunthung exposes students to diverse cultural practices, traditions, and musical expressions. It fosters cultural awareness, sensitivity, and respect, promoting a broader understanding and appreciation of music as a global phenomenon. On the aspect of artistic expression, the Trunthung beat pattern offers students a unique artistic palette for creative expression. By experimenting with and adapting the rhythmic patterns, students can explore their creativity and develop their own musical ideas. The rhythmic intricacies of Trunthung provide a platform for students to compose, arrange, and improvise, enabling them to infuse their own artistic voice into the music. On the aspect of ensemble and collaborative skills, the Trunthung's beat pattern lends itself well to ensemble playing and collaborative musical experiences. Students can engage in group performances, where each member contributes to the collective rhythmic groove. By playing together and synchronizing their rhythms, students develop crucial ensemble skills such as active listening, communication, teamwork, and the ability to adapt to others' musical ideas, all of which are essential in group music-making contexts. On the aspect of cognitive development, Studying and internalizing the Trunthung beat pattern stimulates cognitive processes in students.

Analyzing the rhythmic structures, decoding complex rhythms, and coordinating multiple rhythmic layers foster critical thinking, problem-solving, and pattern recognition skills. It

enhances students' ability to process and interpret musical information, contributing to their overall cognitive development. On the aspect of cross-cultural appreciation, The Trunthung beat pattern provides a bridge for students to explore and appreciate music from different cultures. By studying Trunthung, students gain exposure to the musical idioms and practices of specific communities or regions, expanding their musical horizons and cultivating an open-minded attitude towards diverse musical traditions.

Meanwhile, significance of Trunthung's instrument beat pattern in the context of art conservation lies in its role as a living testament to the cultural heritage and artistic traditions of a specific community. Trunthung represents an intangible cultural asset that has been passed down through generations, embodying the unique rhythms, melodies, and techniques of a particular region. By preserving and promoting the Trunthung beat pattern, art conservation efforts contribute to the safeguarding of this cultural legacy, ensuring its continuity and preventing its potential loss or dilution. Additionally, the study and documentation of Trunthung's instrument beat pattern offer valuable insights into the historical, social, and artistic contexts in which it originated, providing a deeper understanding of the cultural significance of this musical idiom. Through research, documentation, and education, Trunthung's beat pattern can be recognized and appreciated as an essential component of a community's artistic heritage, contributing to the broader field of art conservation and cultural preservation.

The significance of the Trunthung instrument beat pattern in the context of ecotourism lies in its ability to enhance the overall visitor experience and create a sense of place and cultural authenticity. Trunthung, as a unique musical idiom, represents the intersection of music, culture, and the environment. Its rhythmic patterns, melodies, and instrumentation are deeply rooted in the local traditions and natural surroundings of the community. By incorporating Trunthung performances into ecotourism activities, such as nature walks, cultural events, or community-based tourism initiatives, visitors have the opportunity to immerse themselves in the local culture and connect with the environment in a meaningful way. Trunthung's instrument beat pattern becomes a symbol of the region's identity, helping to showcase and preserve the local artistic heritage while providing an engaging and authentic experience for ecotourists.

The significance of the Trunthung instrument beat pattern in the context of sustainable tourism development is its ability to promote cultural preservation, community empowerment, and economic sustainability. Trunthung, as a distinctive musical idiom, carries the traditions, values, and identity of the local community. By showcasing and incorporating Trunthung performances into sustainable tourism initiatives, it becomes a powerful tool for cultural preservation and revitalization. The instrument beat pattern of Trunthung, with its rhythmic and melodic elements, captivates visitors and creates a memorable experience, fostering cultural appreciation and understanding. Moreover, the involvement of local communities in the development and promotion of Trunthung-based tourism activities provides opportunities for their active participation, empowerment, and economic benefits. By integrating Trunthung into sustainable tourism practices, it contributes to the overall social, cultural, and economic sustainability of the destination, ensuring the long-term well-being of both the community and the natural environment.

#### 4. Conclusion

This research highlights the significant role of music, particularly in the context of Trunthung as a musical idiom, in promoting cultural preservation and sustainable tourism development. This study emphasizes that music serves as a powerful tool for expressing emotions, conveying cultural values, and creating meaningful experiences for both locals and tourists. Incorporating Trunthung performances into ecotourism initiatives not only preserves the cultural heritage of the community but also empowers local communities and contributes to their economic sustainability. The rhythmic and melodic elements of the Trunthung instrument beat pattern captivate visitors, fostering cultural appreciation and understanding. Overall, integrating Trunthung music into sustainable tourism practices is crucial for unlocking the environment of

ecotourism, enhancing cultural preservation, and ensuring the long-term viability of sustainable tourism destinations.

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