Minimalist *Sape*: The Use of Digital Sound Effects for a Musical Hybrid Concept between Dayak *Sape* Music and Minimalist Music

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Abstract: *Sape* Minimalist music composition is the result of a musical dialogue between *Sape* (*Dayak*) music and Minimalist music through a hybrid approach. Minimalist music itself is a backlash mainly against the chaos and complexity of serialism and aleatoric music. In minimalist music, short melodic patterns with clear tonality and constant repetition are the main focus. In this Minimalist *Sape* composition, the *Sape* instrument is usually played for specific functions such as accompanying ritual ceremonies/customs, as well as entertainment, in this composition *Sape* collaborates with minimalist music elements and produces a repertoire that can be classified in the "absolute" music category. The hybrid musical dialogue approach, which combines two different types of music, has the ability to increase the variety and uniqueness of *Sape* music. Hybrids in Minimalist *Sape* compositions produce unique new musical variations with an experiment using a touch of digital sound effect technology that the tempo development of sape music assisted by other music can affect the hybrid concept realized by combining musical elements from *Dayak Sape* music with Minimalist music. The method used in this research was conducted through a literature review, previous repertoire review, and using an artistic-based research approach. The results of the composition found that *Sape* - Minimalist music using digital sound effect applications can bring breakthroughs with the concept of musical hybrids from *Sape* music and Minimalist music with a touch of sound design effects that produce music with new creativity.

Keywords: hybrid, Sape, minimalist music, sound design

1. INTRODUCTION

Over the past few years or so, there have been a number of developments and evolutions in the world of music. One example is the integration between traditional musical instruments and digital technology, resulting in unique and innovative musical works. In managing and utilizing the wealth of musical culture, special attitudes and strategies are needed to be able to explore, develop, and package through creative, innovative ways, so that the music in the archipelago has added value and marketability as a competitive cultural product in the world.

The era of globalization should be a favorable momentum for Indonesian arts to gain global recognition as one of its unique and aesthetic attractions. However, ironically, today many foreign cultures directly enter and dominate the music culture in Indonesia. As a country that is supposed to be a producer of creative works such as world music, Indonesia is instead just a market for imported cultural products.

The arrival of foreign cultures to Indonesia should be an opportunity to open a dialogue with local arts so that it can contribute to the birth of more productive hybrid musical works from the nation's children. Foreign cultural penetration will have an

impact on cultural acculturation and changes in culture, and can even weaken Indonesian cultural values if there is no creative and innovative cultural dialogue with foreign cultures. This is also true if Indonesia is unable to take advantage of the opportunities that exist in the era of globalization (Surahman, 2016). The *Sape Minimalist* composition is an attempt to conduct a hybrid musical dialogue by elaborating *Dayak* musical idioms with Minimalist musical styles using digital sound effect technology.

In the *Dayak Kenyah*, *Kayan*, and *Iban* communities of East and West Kalimantan, *Sape* music is a very popular stringed instrument. Originally, the *Sape* had two strings similar to the *Sape habae* in the upper *Mahakam* River or *sambe*, according to the tradition of the *Kenyah* people in *Apokayan*. It later evolved to three strings, and more recently some people even use four or five strings (Haryanto, 2015). Because of its similar shape and playing style to a guitar, "Kalimantan guitar" or "*Dayak* guitar" are other terms used to refer to the *Sape*. The instrument is thought to have originated from the *Dayak* tribe and has a wide body with a small handle at the top that can be held. It is known as a chordophone and is played by plucking. Originally, the *Sape*' had three strings: the first string served as the melody, and the second and third strings served as the rhythm. Today, the *Sape*' is made for a variety of musical instruments, such as stringed instruments. There are some people who use five strings or six strings or even more. Wood is the main material for making *Sape*' instruments. *Pelakik* wood or hardwoods such as jackfruit are used, and the harder woods have more grain and better sound (Hasibuan et al., 2019).

Minimalist music is a type of music derived from a style of music composition with minimal and repetitive movement patterns, with little change in pitch. The music deviates from the experimental approach with a simple concept but produces optimal results. The concept of minimalist music is usually limited to the use of simple motifs, then gradually develops until it reaches a complete musical composition. In the beginning, minimalist music was a response to the complexity and speed of modern lifestyles. The majority of minimalist music has a strong and consistent rhythm. Improvisation and electronic music technology, such as the use of tape loops or loop recordings, as well as overdubbing, or the addition of layers of sound during the sound enrichment process, are other factors that influence minimalist music. Minimalist music writers started using tape loops or loop recordings due to the influence of electronic music technology (Ardiansyah et al., 2018).

Since the 1970s, the minimalist music genre has become an integral part of the global musical canvas. Minimalist music, with its emphasis on repetition and transformation of simple musical patterns, has contributed greatly to contemporary composition. As technology and digital devices evolve, there are new, seemingly almost limitless possibilities for manipulating sound and creating new musical works.

On the other hand, *Sape* is a traditional musical instrument originating from the *Dayak* culture in Kalimantan, Indonesia. This instrument will be combined with minimalist music. In the digital era, the *Sape* has undergone its own transformation, with a growth in the use of Digital Sound Effects to amplify and modify its sound. To summarise, this research will discuss how *Dayak Sape* music can be combined with minimalist music through the use of digital sound

effects. This concept is referred to as a musical hybrid concept, where two or more different genres or styles of music are placed together to create something new and innovative.

This study will also explore how digital technology has affected the way we create and express music, and how this has provided new opportunities to preserve and deepen traditional musical genres such as *Sape*. From a review of the existing Minimalist music repertoire, so far most of it still focuses on rhythmic processing, motifs, melodies, and harmonies. Meanwhile, technological developments in the field of music provide an opportunity to further elaborate Minimalist music with the technological touch of using digital sound effects.

2. METHODS

The method used in this research was conducted through:

2.1. Instrument Preparation

Before conducting experiments, musicians need to prepare the *Dayak Sape* instrument properly. They need to ensure that the instrument is in good condition and that the sound produced is in accordance with the characteristics of the instrument.

2.2. Use of Digital Sound Effect

Once the instrument preparation is complete, musicians can use digital sound effects to change the characteristics of the *Sape Dayak* sound. They can use various types of sound effects such as reverb, delay, chorus, and so on. These sound effects can be used to create a unique and interesting sound on the *Sape Dayak* instrument.

2.3. Combination with Minimalist Music

Once the sound characteristics of the *Dayak Sape* have been changed with digital sound effects, musicians can combine them with minimalist musical patterns. They can use simple and repetitive musical patterns to create a calm and meditative atmosphere.

2.4. Recording and Production

Once the musical artwork is completed, musicians can record and produce it. They can use digital software to record and produce musical artworks with good quality.

By using digital sound effects, hybrid experiments between *Dayak Sape* music and minimalist music can create unique and interesting musical artworks.

3. RESULTS AND DISCUSSION

3.1 Hybrid as an offer of musical dialogue

In this research, the concept of musical hybrids is based on Homi Bhabha's concept of the postcolonial, which describes "culture" as a process in which people cooperate and contract between the present and the past, between what happens inside and outside society. In addition to colonization, a process of cultural negotiation also takes place, which results in hybrid products from discussions about existing cultures. Collaboration between different cultures has resulted in hybrid products (Furqon & Busro, 2020).

Hybridity refers to the process or result of combining two or more demarcated identities, objects, races, languages, or other concepts, whether physical, conceptual, or virtual. At times, it has been a contentious term used in a variety of contexts – from biology to culture – to support political and ideological projects such as racial theories in the nineteenth century. As such, hybridity can be

understood as a signifier of the impure and unworthy and denotes asymmetrical power relations, corresponding to political forces that want to establish inequality. Yet hybridity can also carry positive connotations, creating spaces for agency and subversion, as in the empowering effects of Creole culture, for example. Thus, both positive and negative value is assigned to the category of hybrid, depending on the conditions and motivations of the mix, and the perspective of the interpreter.

Hybridity in music occurs whenever there is a combination of different identity markers, most of which are related to stylistic and genre-framing capacities. These categories govern engagement with music at all levels-cognitive, sociocultural, economic, political, structural, technical, and aesthetic-and define the boundaries of identity that are disrupted in hybrid cases. Style and genre are the primary, though not the only, agents of hybridity. The resulting combinations appear in a variety of ways and with varying degrees of salience to the identities involved, which, because they are idealized as singular hybrid environments, share a rich discursive space. Any musical characteristic that triggers an identity for a particular listener and in a particular location can articulate hybridity when it contrasts with other identities in the same or different compositional realms (Alcalde, 2022).

In the context of music, the hybrid dialogue approach can increase the variety and uniqueness of music by combining two different musical genres. Thus, a new variety of music emerges that has distinctive and unique characteristics. This production can be considered as an acculturation art, where music combines two different cultural elements in the process. In the art of acculturation music, there is a merging of foreign (global) cultural elements and indigenous (local) cultural elements to create a unique work of art (Komang et al., 2020).

Postcolonial people mix their traditional and colonized cultures, creating a hybrid of "native" and "foreign" elements. Independence is achieved through liberation from both the culture that has been colonized and the culture that has been colonized, known as hybridity. (Suryajaya, 2016).

3.2 Sape Traditional Music in a Minimalist Music Concept

Sape music, a traditional music of the *Dayak* tribe in Kalimantan, has characteristics that can be associated with minimalist music. *Sape* is an instrument that, according to community beliefs, can only be played by men and is forbidden to be played by women (Anjani et al., 2022). Playing *Sape* music requires a special understanding, including mounting techniques, song structure patterns, melody shapes, dancing techniques, and song processing systems (Ditwdb, 2019). With the aforementioned basis, the author aims to create a musical composition that develops and combines traditional musical elements of the archipelago with a modern musical context related to technological advances in the era of globalization. *Sape* Minimalist music utilizes the concept of musical hybrid by combining the musical idiom of *Sape* Dayak with the concept of Minimalist music. The new creations and innovations in the composition allow for musical variations that occur simultaneously from one melody to another, often with contrasting intonation differences (Fiore, 2014).

As a country rich in traditional musical heritage, the musical idiom of the archipelago offers interesting potential for further research, as a basis for the creation of Minimalist *Sape* works. The

Dayak people of Kalimantan usually have a musical instrument similar to the *Sape'-sape'* in other Kalimantan Provinces. It has a wide body, a small stalk, is about one to 1.5 metres long, and has 2 to 8 strings. The *Dayak* people still use the hornbill-shaped sape head to denote protection and security. This could also be due to the strong traditions of the ancestors who passed the concept down to the *Dayak* people or from generation to generation (Pernando, 2021).

The collaboration between sape music and minimalist music can be an interesting and creative experiment, but it also has its difficulties: (1) *Sape* music has two types of tones: *Tubunsitun* and *Sakpakok*. *Tubunsitun* moves slowly and produces a distinct tone, while *Sakpakok* moves quickly and produces a dynamic tone. (2) *Sape* music has a variety of strings; some are four to six, and some are only two strings, called *Sape' Karaang*. (3) *Sape* music has distinctive characteristics and is synonymous with *Dayak* culture in Kalimantan. *Sape* music is often used to accompany dances, celebration events, or even the healing process (Mahatma, 2021).

The consideration of combining these musical elements is done with the aim of presenting a contextualized musical repertoire in accordance with the musical culture of the Indonesian people, as well as following the development of current (western) music which is experiencing changes in style and technology. This aims to show the development of music in the era of globalization by considering the development of music in the present time (Panduraja Siburian et al., 2021). The notation is done using block notation, which was chosen because it is considered a Western music writing system that has been universally accepted and used, in contrast to number notation or other writing systems that are less standardized.

Minimalist music is a musical art form or compositional practice that utilizes limited or minimal musical materials. The following are some of the main theories and concepts relating to minimalist music composition:

1. *Repetition*
   Repetition is a fundamental element in minimalist music composition. Composers often create repetitive patterns of musical phrases, rhythms, and harmonies, which gradually evolve over time.

2. *Process and Phasing*
   Minimalist composers often use process techniques, where strict rules or procedures govern the development of musical material. This can involve gradual phase shifts, where two or more identical musical patterns gradually fall out of sync with each other

3. *Stable Pulse*
   Minimalist music often features a steady and consistent pulse or beat, which provides a sense of stability and continuity throughout the composition

4. *Consonant Harmony*
   Minimalist music tends to use consonant harmony, which creates a sense of stability and simplicity of tone

5. *Gradual Changes*
   Minimalist compositions often involve gradual changes to the musical material over time, rather than abrupt changes. This

allows the listener to experience subtle transformations and interactions between different musical elements

6. ***Simplicity and Reduction***

   Minimalist music embraces simplicity and reduction, focusing on the essential elements of melody, rhythm, and harmony. This music often eliminates unnecessary complexity and ornamentation

7. ***Spatial and Sonike Considerations***

   Some minimalist compositions explore spatial and sonic aspects, utilizing different sound sources, textures, and spatial arrangements to create an immersive and unique listening experience (Reich, 2018).

It is important to note that minimalist music is a broad and diverse genre, and different composers may approach composition in slightly different ways (Mertens, 1983).

In an effort to create an equal musical dialogue through the fusion of archipelago music idioms and contemporary music, the author sought to produce a unique hybrid of the two different musical idioms, incorporating elements of cross cultures. The composition involves the use of various musical instruments, such as *Sape*, violin, synthesizer, sequencer, etc (Laksono, 2018). In addition, in today's digital age, the creativity of traditional music such as *Sape* music is starting to penetrate into contemporary activities, including in the form of collaboration with electronic music (Fauzi et al., 2021). This shows the potential for combining elements of *Sape* music with digital sound effects or electronic music, which can produce unique and innovative musical works.

Combining *Sape* music and minimalist music with digital sound effects or minimalist music can provide interesting results in experiments involving the use of digital sound effects. The use of sound effects in music can add dimension, create atmosphere, and enhance the listening experience. In this case, electronic sound effects or ambiance sound effects can be an interesting option to explore in the collaboration of *Sape* music and minimalist music. As such, *Sape* music can be considered music that can be studied in the context of minimalist music, especially with its simple structures of repetition, meditation, and repetition. Combining *Sape* music with digital sound effects or minimalist music can also produce unique and innovative musical works that are worthy of further study.

The author chooses to combine *Sape* music with a minimalist music style, which is based on Indonesian culture that is rich with various musical idioms, such as melody, rhythmic, musical instruments, and so on. On the other hand, the influence of technological advancement and the progress of the times in the music industry cannot be avoided. The author uses digital sound effects that can be accessed through laptops, computers, and tablets.

3.3 Experimentation Process

Sape music is a type of traditional music originating from Central Kalimantan and is played on a stringed instrument made of wood called a " *Sape* ". It has a fast rhythm and an uplifting melody. One type of contemporary music born in the 20th century is minimalist music. The use of simple melodies, harmonies, and rhythms makes this music unique. Electronic elements such as synthesizers and drum machines are often used in minimalist music. The author tries to use digital sound effects for the collaboration of

Sape and Minimalist music. The goal of this experiment is to combine two different musical components into one harmonious piece.

1. *Experiment Procedure*

This experiment was conducted with a computer and a digital audio workstation (DAW) program. To generate the sound, I used a *Sape* musical instrument and a Digital Effect Pedal.
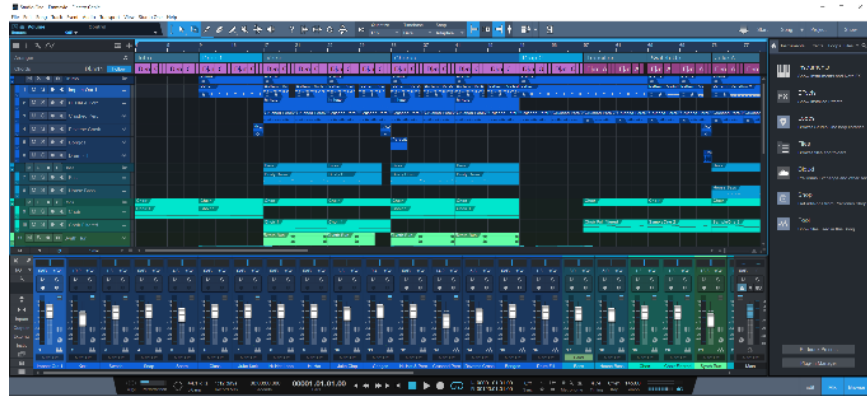

Figure 1. Studio One 5
(Author, 2023)

Figure 2. Valeton GP-200
(Author, 2023)

The experimental process was carried out with the following steps:
a. Selection of melody and rhythm

Melody and rhythm are important elements in music. In this experiment, I chose simple melodies and rhythms from both types of music.
b. Addition of digital sound effects

Digital sound effects are used to add sound effects to music. In this experiment, I used various digital sound effects, such as reverb, delay, and distortion.

Figure 3. Valeton GP-200 Software

c.   Mixing and mastering process
The mixing and mastering process is done to bring all the musical elements together into a harmonious whole.

Experiment Results

The experimental results show that the use of digital sound effects can produce a unique and interesting collaboration of *Sape* music and Minimalist music. Digital sound effects can add a new dimension to *Sape* music, making it sound more modern and futuristic. In this experiment, I used several different digital sound effects to produce a variety of sound effects. Here are some examples of the sound effects I used: (1) Reverb is used to add an echo effect to the music. This effect can make *Sape* music sound broader and deeper, (2) Delay is used to add a delay effect to the music. This effect can make *Sape* music sound more complex and interesting, (3) Distortion is used to add a distortion effect to the music. This effect can make *Sape* music sound more aggressive and energetic.

Experiments with the use of digital sound effects on *Sape* music and Minimalist music show that the two types of music can work well together. Digital sound effects can add a new dimension to *Sape* music, making it more interesting and contemporary.   This experiment can still be extended. In the future, the author would like to try to create more interesting collaborations of *Sape* and minimalist music by using more diverse digital sound effects.

4. CONCLUSION

The collaboration between *Sape* music and minimalist music can be an interesting and creative experiment, but it also has its difficulties:

- *Sape* music has two types of tones: *Tubunsitun* and *Sakpakok*. *Tubunsitun* moves slowly and produces a distinct tone, while *Sakpakok* moves quickly and produces a dynamic tone. Minimalist music usually has a constant and unchanging tempo. Therefore, the collaboration between *Sape* music and minimalist music must pay attention to the compatibility of tempo between the two types of music.
- *Sape* music has a variety of strings; some are four to six, and some are only two strings, called *Sape' Karaang*. Minimalist music

usually uses instruments that have many notes, such as piano, synthesizer, or guitar. Therefore, collaborations between *Sape* music and minimalist music should take into account the limited tones of *Sape* music, and find ways to combine it with other instruments that are more varied.

- *Sape* music has distinctive characteristics and is synonymous with *Dayak* culture in Kalimantan. *Sape* music is often used to accompany dances, celebration events, or even the healing process. Minimalist music has more universal characteristics and is not tied to a particular culture. Therefore, collaboration between *Sape* music and minimalist music should take into account the cultural aspects of *Sape* music, and find ways to honor and appreciate these cultural values.

Minimal music and *Sape* music have worked together to create unique and interesting music that combines different musical styles that complement each other. The simple and repetitive *Sape* music provides a calm and relaxing atmosphere, while the minimalist music gives structure and depth to the piece. The minimal music and *Sape* music collaboration is still evolving. New musical works resulting from this collaboration are increasingly showing great potential. These collaborations have opened up new opportunities for *Sape* music to be recognized by the world community.

If *Dayak Sape* music is developed by elaborating its idioms through mixing with several motifs following the structure of minimalist (western) music, it can produce an absolute music according to the aesthetic standards of Western music, without losing the nuances of *Dayak* music.

After the experimentation, it was found that the collaboration between *Dayak Sape* music and minimalist music resulted in a unique repertoire style that allowed *Sape* music to develop and become one of the minimalist music styles that can be categorized as one of the "absolute" music repertoires according to the aesthetic standards of western music.

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