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**Balian River as an Inspiration for the Creation of
Jantra Bhinawa Neurological Music**

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ABSTRACT

Purpose: The large number of psychiatric cases experienced by teenagers today raises great concerns about their future. To overcome this, there are many things that can be done, one of which is art therapy. Balian River in Pupuan Village, Tabanan, Bali, Indonesia, was used as a source of inspiration for the creation of neurological music with the title Jantra Bhinawa. This study was created to analyze Balian River as an inspiration for the creation of Jantra Bhinawa neurological music for the benefit of art therapy itself. **Research methods:** This creation uses a method of creating works of art based on qualitative and quantitative research. Data collection was carried out by means of surveys, literature studies, interviews, noise measurements and frequency measurements. **Results and discussion:** One part of art therapy that can be applied is low frequency music therapy such as red or brown noise. Noise is useful for improving concentration and sound sleep. This is generally produced by natural sounds such as waterfalls and river water in Balian River. **Implication:** Neo-Guntang as a medium of expression uses a neurological musical approach framed by *karawitan* artwork to convey the ideas of Balian River itself.

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INTRODUCTION

Indonesia is currently experiencing a mental health crisis. In research data from The Conversation, it was recorded that as many as 2.45 million Indonesian teenagers experienced mental disorders (Wahdi, 2022). From this, it was found that 1 in 20 (around 5.5%) teenagers in Indonesia were diagnosed with a mental disorder.

Referring to the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) issued by the American Psychological Association (APA), mental disorders can take various forms such as depression, bipolar disorder, schizophrenia, dementia, and growth and development disorders (American Psychiatric Association, 2013). This will certainly have an impact on a person's continued education, career, and physical and mental health problems. The factors causing this include the process of pregnancy and birth, accidents, drugs, and other external factors such as traumatic burdens on their psychology.

One of the traumatic burdens on teenagers' psychology is the pressure caused by blasphemy and various forms of bullying that they experience on social media. Maemunah 2023 explains that bullying has a big influence on motivation to learn, causing people to like being alone and having an impact on their psychology (Maemunah & Sakban, 2023). This is certainly one of the factors causing mental disorders such as depression and stress.

The large number of psychiatric cases experienced by teenagers today raises great concern about the future of teenagers. To overcome this, there are many things that can be done, one of which is art therapy. One part of art therapy is low frequency music therapy such as red or brown noise (Murwaningrum *et al.*, 2023). Such frequencies are often termed red noise. This is generally produced by natural sounds such as waterfalls and river water. The sound of waterfalls and river water can also be called noise. Noise is useful for improving concentration and sound sleep. One of the rivers chosen and worthy of being used as a reference for brown noise is Balian River.

According to data from the Bali Island Water Carrying Capacity Status Document by the Ministry of Environment and Forestry, the Bali and Nusa Tenggara Ecoregion Development Control Center, Balian River (i.e. *sungai* in Indonesian Language and *tukad* in Balinese) is one of the rivers in Bali which flows across two regencies, namely Buleleng and Tabanan. As its upstream, Balian River is in Busung Biu District, Buleleng Regency and empties into West Selemadeg District, Tabanan Regency. Historically, Balian River is a river that has a history which is said to have been a medium for non-medical treatment in ancient times.

Based on research by IIK Medika Persada Bali in 2018 referring to Bali Gubernatorial Regulation No. 16 of 2016, Balian River water is declared in the upstream and downstream sections to be categorized as class III water. This is due to

the high BOD parameters, namely 8,637 ppm and 10,370 ppm. Apart from that, research was also carried out regarding the noise around Balian River, namely an average of 50 dB(A). If viewed from the physical aspect of the water and its noise, Balian River is a good place to function as a place to neutralize the mind to overcome mental disorders. Based on the research journal IIK Medika Persada Bali in 2018, it was stated that the water in the sixth longest river in Tabanan is still suitable for use as a means of cleaning and treatment according to Hindu community beliefs. Likewise, based on Bali gubernatorial Regulation Number 16 of 2016 concerning Noise Level Quality Standards, Balian River has noise that is still suitable for green open spaces and places of worship or similar, namely having an intensity of 50 dB(A).

Moving on from this, the idea emerged to draw from the essence of Balian River as a source for creating works of art that refer to the realm of neurological music. "The human brain is a musical brain and musical rhythms have the direct power to influence cognitive function" (Djohan, 2019: 236). This means that music is very influential and works optimally on human sensors which stems from brain health. This also has an impact on the relaxation process which affects the human psyche. Listening to music reduces cortisol levels by 66 percent (Wardhana, 2016: 61). So neurological music was chosen as a solution to mental disorders by taking the idea of Balian River as a source of inspiration for its creation.

As a topic for an experimental work, "Jantra Bhinawa" was chosen as the title of the work. Etymologically, Jantra Bhinawa consists of two words in Old Javanese, namely *jantra* and *bhinawa* (Mardiarsito *et al.*, 1992). *Jantra* means wheel as a reflection of the water cycle in the universe and in the human body. *Bhinawa* means new where new here can be interpreted as renewal or refresh or reinvigorate which means restoring the situation to its original state. Jantra Bhinawa is the restoration of the human psychological state from deviations in mental balance by harmonizing the cycles in the human body with the water cycle in the universe.

As an expression medium, the *guntang* instrument was chosen to support the idea above. Apart from being an effort to revitalize Balinese gamelan instruments which are almost extinct, the *guntang* is chosen taking into account the timbre produced. It is hoped that the soft sound in the *guntang* will be able to support the neurological music being worked on. Considering bamboo as a physical instrument, this is a plant that lives close to water sources.

RESEARCH METHODS

The creation of this work of art uses a method of creating works of art based on qualitative and quantitative research. Data collection was carried out by means of surveys, literature studies, interviews, noise measurements and frequency measurements. The first begins with determining the topic of discussion which is based on phenomena obtained from literature studies. Moving on from the phenomena obtained, it is then continued with a literature study regarding the solution to the problem. After obtaining data about the solution to the phenomenon raised, it continues with a survey of the object determined to be used as a work. Supported by interviews, noise and frequency measurements on the specified objects. After all the data has been collected, a comparative study is carried out between the data and several documents containing data standards.

The method of creating works of art based on the research above. The method used takes terms from Old Javanese which are arranged into a method with the structure namely SAMAWAPA. The series of methods are structured as follows:

1. *S-sambadha* (problem) can be interpreted as determining a problem based on the phenomenon that will be raised in the topic of the work.
2. *A-ananyamat* (thorough) is defined as carrying out in-depth research on the selected phenomenon.
3. *M-makaphala* (as a result) namely finding a solution as a result of research on the phenomenon chosen as the topic of the work.
4. *A-aruru* (search), which at this stage is defined as exploration carried out on the elements found as a solution to the phenomenon.
5. *W-wangun* (form) is the process of compiling a work from elements obtained at the exploration stage.
6. *A-aswada* (taste) gives a touch of taste to the work, resulting in a work that has spirit.
7. *P-pariksa* (test), namely the stage to test the suitability of the work before it is presented at the presentation stage.
8. *A-angrengwaken* (listening), namely presenting works to be listened to by art lovers.

RESULTS AND DISCUSSION

Idea Creation

Balian River is one of the rivers in Bali which from ancient times until now is still trusted by the community to function as an excellent place for healing or purifying oneself as well as for agricultural irrigation and drinking water. Based on the research journal IIK Medika Persada Bali in 2018, it was stated that the water in the second longest river in Tabanan is still suitable for use as a means of cleaning and healing according to Hindu community beliefs. Likewise, based on Bali Gubernatorial Regulation Number 16 of 2016 concerning Noise Level Quality Standards, Balian River has noise that is still suitable for green open spaces and places of worship or similar, namely having an intensity of 50 dB(A).



(Source: Personal Documents, 2024)

Figure 1. Screenshot of the decibel meter application

According to data from the Bali Island Water Carrying Capacity Status Document by the Ministry of Environment and Forestry, the Bali and Nusa Tenggara Ecoregion Development Control Center, Balian River is one of the rivers in Bali which flows across Buleleng and Tabanan. As its upstream, Balian River is in Busung Biu District, Buleleng Regency and empties into West Selemadeg District, Tabanan Regency. Historically, Balian River is a river that has a history which is said to have been a medium for non-medical treatment in ancient times. There is explicit evidence in Purana Jagat Bangsul that it is stated that "ika matangny Rsi Markandya asung wruha I Mucaling anesti, kandugi ngarcana wwe maha dibya, matangny pung paling I Mucaling ring Pucak Bukit Rangda." which means "Itulah sebabnya Rsi Markandya mengumumkan yang beliau ketahui tentang perilaku I Mucaling anesti, lalu beliau memuja untuk memperoleh tirta

utama, yang menyebabkan I Mucaling gelisah dan kebingungan berada di Pucak Bukit Rangda (That's why Rsi Markandya announced what he knew about I Mucaling anesti behavior, then he prayed to get the ultimate tirta, which caused I Mucaling to be anxious and confused at the Pucak Bukit Rangda" (Bala Kriya, 2002). Until now, the main tirta is believed to be in Balian River which is located in Lalanglinggah Village, West Selamadeg District, Tabanan, Bali. "To the west of the temple there is a large river, namely Tukad Balian, which means a river that can cure disease outbreaks" (Bala Kriya 2018).

Starting from the historical sources above and the function of this river in society, if viewed from another perspective, the river can also be used as a means of treatment by utilizing the sound waves produced as sound therapy. If studied more deeply, it is found that river water is a source of noise which can be used as an alternative voice treatment. Referring to the sound spectrum detected by the noise detector, it was concluded that the noise produced is characteristic of brown/red noise which can be useful in increasing concentration and improving sleep quality. This is in line with the phenomenon of many mental disorders in teenagers that occur in Indonesia today. Based on this, it can be concluded that the noise generated by the flow of Balian River is an alternative treatment that can treat mental disorders in adolescents.

Concept of Work

The idea of creation was implemented into a work of musical art with the title "Jantra Bhinawa". Etymologically, Jantra Bhinawa consists of two words in Old Javanese, namely "Jantra" and "Bhinawa" (Mardiwarsito et al., 1992). The word Jantra means wheel as a reflection of the water cycle in the universe and in the human body. The word Bhinawa means new, new in this case can be interpreted as renewal or refresh or reinvigorate which means restoring the situation to its original state. Jantra Bhinawa is the restoration of the human psychological state from deviations in mental balance by harmonizing the cycles in the human body with the water cycle in the universe.

The media used to create this work is a new musical instrument labelled Neo-Guntang. Neo-Guntang is a musical instrument ensemble which is a revolution from the guntang instrument in the Geguntangan gamelan which is a Balinese gamelan. Guntang was originally one of the dimensions and rhythm instruments in the Geguntangan gamelan repertoire. Derived from the word guntang which means the name of one of the *tungguhan* whose beat is a rhythmic beat, made from bamboo.

The gamelan device used to accompany the Arja Dance Drama type of art. Tungguhan is very dominant in the cultivation of rhythm (Sukerta, 1998). As time goes by, this instrument has been influenced by the existence of other instruments included in the gamelan barungan Geguntangan, namely the timbung instrument as a substitute for the guntang klentit, and the gong pulu as a substitute for the guntang kempur instrument. The guntang instrument was replaced with other instruments, i.e. guntang kempli with timbung, guntang kempur with gong pulu, the gamelan Geguntangan without guntang was born (Dibia 2017: 49). With this statement, it can be concluded that currently the condition of the guntang instrument is on the verge of extinction, so it is very necessary to carry out revitalization.

Experiments were carried out on this instrument using a comparison method on other instruments, namely the Mandolin instrument. The mandolin is a musical instrument that resembles a harp consisting of several tools, including a trampa with a rensinator, five strings, a bow, and a pelvis (Aryawan, 2019). The possibility of new discoveries regarding this instrument can be achieved.

This media was chosen on the basis of a musical perspective that is different from the perspective of previously rooted traditions. As a new perspective, the Neo-Guntang ensemble is a transformational medium that offers musical elements such as timbre, rhythm, pitch and new tonal areas. This expression media is used by taking into account several considerations based on the elements described in brown/red noise. First, the timbre produced by the guntang instrument is soft. Second, this noise is dominant in the low tone area, while the high tone area seems more inaudible. If viewed from the tone area, the guntang instrument is found in the low to middle tone area. It fits the needs of Jantra Bhinawa's work.

CONCLUSION

Based on observations of the phenomenon of mental disorders in teenagers which show quite large numbers, this raises concerns for their future. Therefore, one solution that can be used to overcome this problem is to carry out treatment using music therapy. One of them comes from natural sounds in the form of noise or noise which can create calm so that it can normalize a person's psychological state or condition. Brown/red noise is a type of noise that comes from the sound of waterfalls, sea water and river water. Therefore, one of the rivers in Tabanan, namely Balian River, was

chosen as the source of creation. Balian River, which has historically been viewed as a river as a source of healing springs, is now trying to be transformed as an inspiration for the creation of neurological music with the title Jantra Bhinawa.

Neo-Guntang as a medium of expression uses a neurological musical approach framed by karawitan (traditional gamelan) artwork to convey the ideas of Balian River. Jantra Bhinawa is a transformation to restore the human psychological state from deviations in mental balance by aligning the cycles in the human body with the water cycle in the universe. As a new perspective, the Neo-Guntang ensemble is a transformational medium that offers musical elements such as timbre, rhythm, pitch and new tonal areas so that the interpretation of neurological musical ideas by taking the essence of Balian River can be viewed from a different point of view from the generalization perspective.

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