

## I Wayan Ary Wijaya's Creative Process in Creating Digital Gamelan Music

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**Abstract:** This paper is to trace the creative process in composing Digital Gamelan Music (DGM) done by I Wayan Ary Wijaya a Balinese artist. It is a qualitative study by operating observation, documentation, and interview. Interview is done with I Wayan Ary Wijaya and other related parties. DGM was created by Ary Wijaya from linking gamelan and music technology. DGM is another way to strengthen tradition and at the same time foster creativity by using the gamelan (traditionality) and the technology (modernity) as a medium of inspiration. It is found that DGM is composed using Panca Sthiti Ngawi Sani theory: inspiration stage (ngawirasa); exploration stage (ngawacak); conception stage (ngarencana); execution stage (ngewangun); presentation stage (ngebah). DGM as a terminology is still experiencing struggles in terms of concept definition, form, and creative work process. Besides that, the digital technology belongs to a product of capitalism.

**Keywords:** gamelan, digital technology, creative process, digital gamelan music (DGM).

**History Article:** Submitted 24 January 2022 | Revised 25 February 2022 | Accepted 28 March 2022

**How to Cite:** Wahyudita, K., Sudirga, I. K., & Suharta, I. W. (2022). I Wayan Ary Wijaya's creative process in creating digital gamelan music. *Journal of Aesthetics, Creativity, and Art Management*, 1(1), 42-58.

### Introduction

As one of the elements of Balinese art, since the past until now, gamelan has always moved dynamically in line with the development of the level of knowledge and sensitivity of its composers in interpreting the changes and developments of the era. In this context, gamelan is the result of the cognitive creativity and attitude of the artist in interpreting *desa* (place/space), *kala* (time), and *patra* (human condition). The birth of Digital Gamelan Music (in Bahasa Indonesia: Musik Gamelan Digital or MGD) is one of its manifestations.

DGM is the response of Balinese artists in interpreting the current development of digital technology. The change in the creative space from convention to virtual stage, from live performances to online, opens up opportunities for Balinese gamelan creators to explore these changes by fostering new perspectives on their work. Currently, the development of increasingly sophisticated music technology provides various conveniences for composers or music creators to work quickly and efficiently. As stated by Hendra Santosa, researcher and lecturer of the Department of Karawitan Institut Seni Indonesia Denpasar, stated that the birth of technology is basically a tool to facilitate human life. Similarly, the birth of technological devices to create music. This convenience will certainly be an opportunity as well as a challenge for composers who are engaged in it (interview, 11 April 2022).

If traced back, before the birth of digital-based computer technology, music presentation in the context of changes and technological developments has gone through several phases, ranging from LPs played with gramophones, cassettes played with tape players and walkmans, Digital Audio Tapes (DAT), and Compact Disc (CD), Video Compact Disc (VCD), and Digital Versatile Disc (DVD) played with a VCD Player. All of that has now begun to be replaced with the advent of digital format music. Many digital music formats can be found in today's era. Some of them are MP3 (Moving Picture Expert Group Layer-3 Audio), MP4, WMA, real Audio, Music Instrument Digital Interface (MIDI), and Ogg Vorbis. Various digital music formats such as Advanced Audio Coding (AAC), WAV (Waveform Audio File Format) were born along with the development of computer technology and the internet.

Judging from the process and form, DGM is gamelan music that is processed, produced, and presented on digital media. In Bali, DGM was present after the development of recording technology to record musical works, both gamelan and pop music, and exploded after the development of computer technology. The center of its development started from Denpasar City since the 1990s. This is of course closely related to the position of Denpasar City as a center of economic and technological growth. The beginning of its emergence can be seen from the work of Igor Tamerlan. According to I Wayan Balawan, Igor is one of the artists who initiated the sampling of gamelan sounds (MIDI) to be used as arrangements for his work. The work is entitled Bali Vanili which has now been published on the youtube channel (result of an interview with I Wayan Balawan, 25 October 2021). This is the first work, according to him, which became the forerunner to the occurrence of 'fusion' music between Western musical instruments and gamelan which was packaged with digital technology.

The track record of further development of DGM is also observed from contemporary dance works performed by students of the Dance Department at Institut Seni Indonesia (ISI) Denpasar, which was previously known as Sekolah Tinggi Seni Indonesia (STSI) Denpasar. DGM is often used as accompaniment music. This can be seen in the semester exams and Final Projects that are performed by Dance Department students every year. In addition, knowledge of music technology, especially digital, is often included as one of the multimedia courses or workshops for students of the Karawitan Department.

As a new phenomenon, the presence of DGM has reaped many pros and cons responses. Various perceptions and assumptions have emerged in response to the presence of this DGM. For those who are cons, the presence of DGM is considered a gradual annihilation of the existence of the original gamelan, because it is no longer needed to make musical compositions. There are also those who think it will eliminate the traditional learning system. Even conservatives think that DGM does not have a 'spirit' and is unable to present *taksu*, because the energy of the music is much different because it is a product of machines.

I Wayan Dibia, an expert on Balinese arts, also stated that DGM cannot be regarded as a gamelan show. This is because gamelan is essentially a form of

expression of the Balinese communal culture. According to him, gamelan is a form of orchestra that must be presented together. Beating or playing gamelan does not mean only presenting music/songs, but it is also a form of expression for Balinese humans as social beings who are interdependent with each other. There are different characters that are brought together to become harmonious, one soul, and one taste. However, if the gamelan is not presented using the instrument, then there will be a lot of cultural values that just disappear (interview, 1 December 2021).

A sharp criticism of the development of digital technology-based music towards the realm of the music industry was also conveyed by Suka Hardjana. He stated that the inventions of audio-visual recording, video cassettes, DAT, and CD-VCD-DVD digital recording systems from the 1980s to the late 1990s, all of which have accelerated and changed the discourse of musical life, which was originally an activity. Communal and private then became the business affairs of the growing industrial giant. The impact gave birth to new problems that were not simple, namely new domination and colonization in the form of taste-forming market politics. The rulers are investors and traders. Their tip is who controls the technology, then he controls the world. Therefore, musical tastes are also united through populist 'industrial music' in the same character. (Hardjana, 2003: 245-247). Although what Suka Hardjana said did not directly highlight DGM, in principle he criticized that the occurrence of the music industry was a form of propaganda applied by capitalists to carry out cultural colonization through technological and economic mastery.

But for those who are pro, the presence of DGM is actually seen as a solution to increase productivity in their work. Because, to express ideas into musical compositions in the past mainstream way, it will be less fast than using digital technology in the form of MIDI or WAV. In this case, DGM has provided an efficiency impact for composers to work, both in terms of time, energy, and funding. In addition, there are also those who think that the effort of sampling gamelan tones into MIDI will be able to help document rare gamelan tones for digital storage.

In the field of education, several records show that DGM has provided learning facilities for students who want to learn gamelan. The limited gamelan facilities owned by the school ultimately did not become a barrier for students who wanted to learn gamelan. Now many digital gamelan have been packaged into applications and can be downloaded using only mobile media. This effort to digitize gamelan in a digital gamelan format is a form of developing the creative industry in the 4.0 era. Two articles that state the positive benefits of digital gamelan for the world of education and the development of creative industries, namely: ""Implikasi Penggunaan Media Audio Digital Terhadap Pembelajaran Gamelan Degung I Di Departemen Pendidikan Seni Musik FPSD UPI"" (Implications of Using Digital Audio Media for Gamelan Gamelan I Learning in the Department of Music Education, FPSD UPI) written by Tantra Adi Permadi and Dewi Suryati Budiwati (Permadi, 2016); and ""Konsumsi Dan Produksi Musik Digital Pada Era Industri Kreatif"" (Digital Music Consumption and Production in the Creative Industry Era) by Cahya Berto Habib and Irwansyah (Habib, 2020).

This controversial occurrence in the context of interpreting the presence of DGM can indeed be said to be a natural thing. As Pavlik reveals in his book entitled *New Media Technology: Cultural and Commercial Perspectives*, that technological change causes two consequences, namely desirable and undesirable consequences. That is, there are always parties who feel disadvantaged even though there will also be new models that emerge from the development of technology (Pavlik, 1996:5).

However, apart from the pros and cons mentioned above, what is interesting to observe is that the presence of DGM as a new format in the realm of creativity has changed the habits and ways of composers in creating musical works. Although music is essentially a sound arranged with musical elements such as melody, rhythm, time, dynamics, etc., composers must go through more complicated stages in preparing various tools to arrange these elements using music technology. They must really consider the media (instrumentation), medium (space), and audience (audience) in the framework of creating DGM.

In essence, technically creating DGM requires not only expertise in composition, but also adequate practical skills. It is not only capable of composing sound and sound into various musical elements, but also the ability to master music technology is very much needed. Not only able to play gamelan, but also must be able to play various Western musical instruments.

Judging from the spirit of the appearance, the excitement of DGM cannot be equated with a live gamelan performance. However, as a form of development, DGM also deserves to be appreciated. For example, during the Covid-19 pandemic, where meeting space was limited, DGM actually became one of the solutions to nurture the creativity of composers so that they could continue to express their ideas into real works. Apart from that, the presence of gamelan in the digital space also opens a roadmap for composers to explore freely without limits, discovering new possibilities in terms of working on, either technically, aesthetically, or stylistically. As a result, some of them have shown a qualified quality of work.

One of the young Balinese composers who has produced many DGM works is I Wayan Ary Wijaya. This STSI Denpasar alumnus who is also the owner of Palawara Music Company has touched the world of music technology since a dozen years ago, long before the Covid-19 pandemic spread. In the last decade, Ary Wijaya has succeeded in formulating and creating digital music concepts by placing Balinese gamelan as the foundation for his work. His work in the world of art creation, especially DGM, has been recognized and trusted by the public. One of them is the performing arts students of ISI Denpasar. At his alma mater, he often helps in the TA process for students of the Department of Dance and Pedalangan, especially as a supporter of accompaniment music. In addition, Ary Wijaya is also often present to fill various government projects, especially in the manufacture of digital gamelan music for advertising production.

Ary Wijaya is not the only young Balinese composer who takes part in using digital technology. Apart from Ary Wijaya, there are a number of names who also use digital technology in the process of creating music, namely I

Kadek Suardana, I Wayan Gde Yudana, I Wayan Balawan, I Wayan Murda, and many other young composers such as Janu, Putu Septa, Jigo Palawara, Dek Gung Tong-tong, Gus Brown, Wahyu Ethnika, and others. However, from all of these names, Ary Wijaya can be said to be the one who really focuses on the creation of DGM. This is evidenced from the 7 albums by DGM that have been published, as well as nearly 300 other DGMs that have been personally documented.

Like a cook, Ary Wijaya has succeeded in formulating various recipes and special menus and has received public recognition. Therefore, it is interesting to be used as a study material, namely how is the creative process carried out by Ary Wijaya in creating DGM? Furthermore, what are the obstacles he faces in creating DGM? To answer this question, the writers try to use the Panca Sthiti Ngawi Sani theory as the basis for the analysis. Furthermore, the writers also include several critical social theories to provide a critical view of the issues discussed. Because, even though DGM can make it easier for composers to work on their work, DGM is also important to be criticized and questioned so that its existence does not degrade the existing gamelan existence.

### **Methodology**

This research uses descriptive qualitative methods, namely research procedures that produce descriptive data in the form of written or spoken words from people and observable behavior. Kirk and Miller as quoted by Moleong, define qualitative research as a certain tradition in social science, which fundamentally depends on observing humans in their own area and relating to these people in their language and terminology (Moleong, 2001: 3).

The subject of this research was determined by using purposive sampling considering that this research will focus on analyzing the creative process of I Wayan Ari Wijaya in creating DGM. This study uses qualitative data, qualitative data types in the form of sentences and expressions. Collecting data using direct observation and interview methods. Data analysis also uses procedural qualitative data analysis. Operationally, according to Pudentia, qualitative data analysis is carried out in three interrelated systematic steps, namely: data reduction, data presentation, and drawing conclusions (Pudentia, 1998: 8). From this analysis, it is expected to be able to answer the creative process and problems I Wayan Ary Wijaya has in creating DGM.

### **Results and discussions**

Before going into the main discussion, it is important to know that I Wayan Ary Wijaya's encounter with digital technology began in 1998. At that time he was studying at STSI Denpasar. Although only armed with the ability to play gamelan which is quite limited, but his enthusiasm to learn art knowledge is very high. While studying Balinese musical knowledge, his interest in keyboards that he met on campus at that time was the beginning of his interest in the world of modern music and technology. The keyboard that he found was a Work Station, which means it could compose, record, even though it had a limited time limit. But this is what gave him the idea to elaborate it with the

composition course he was taking. From this encounter with the keyboard, he realized that the world of traditional music in the future will always be in touch with technology. He also believes that someday Balinese gamelan will be able to be played using a keyboard. This is where the struggle of I Wayan Ary Wijaya in pursuing various musical technologies began.

While working in the digital world, Ary Wijaya has also earned his trust as a soundman in performances performed by art communities, one of which is the Plenary Studio in Bona. From the experience of being a soundman, he has learned a lot and is pursuing various types of sound control technology and how to use it. A year later (1999), he began to join the band Intan Dewata Record. It was here that he met a famous artist named Ignor Tamerlang. The technological knowledge that Ary Wijaya got from Igor Tamerlang was DAW (Digital Audio Workstation). DAW is a software intended for studio recording. At that time he was introduced to Fruityloop 3. Not only did he stop there, he continued his efforts to find various types of music technology. After a year studying DAW prutilup 3, in 2000 he discovered Helian Sampling Software, Simple Tank, and so on. It was all the software that he worked on that ultimately led him to find a way to make gamelan sound samples that could be used as MIDI. The first time he used the gamelan sound sampling he used during the TA (Final Project) exam at STSI Denpasar.

After graduating from STSI Denpasar, Ary Wijaya started his career as a composer by using digital tools as a way to create music. The TA exam for his juniors at STSI Denpasar, which is now known as Institut Seni Indonesia Denpasar, is his space to show his works. Every year, Ary Wijaya always gets the trust to work on dance accompaniment music for his junior high school students' TA exams. In 2003, I Wayan Ary Wijaya started to build his community under the name Palawara. Since the formation of Palawara, his exploration to find new ways of creating has continued to increase. He continues his efforts to reconcile or marry gamelan music with Western music as a way to find the identity of his work.

In 2004, I Wayan Ary Wijaya found software that he could use to create MIDI gamelans to make them sound more real or like the original. It is at this point that the question of how to make a quality gamelan instrument sampler begins to be answered. He then continued to study this tool until he succeeded in making good audio sampling of gamelan instruments. As a result, the search he had been doing for years was answered in 2007. In this year also a professional production studio he has also succeeded in realizing.

The creative process of creating DGM is a process or stages carried out by Ary Wijaya in his attempt to create or produce DGM works that have authenticity and originality values. In general, the stages of the creative process carried out by Ary begin with seeking inspiration for ideas and themes through contemplation, imagining (imagining). Then carry out the exportation and drafting of the concept, then the formation, finishing and presentation. More substantively, these stages can be explained as follows.

Based on the theory of Panca Sthiti Ngawi Sani, it can be seen that there are five stages that Ary Wijaya went through to realize an DGM work. These

stages consist of: inspiration stage (ngawirasa); exploration stage (ngawacak); conception stage (ngarencana); execution stage (ngewangun); presentation stage (ngebah).

### **Inspiration Stage (Ngawirasa)**

Inspiration is the earliest realm of the creation process. This effort to generate and get inspiration is what is meant as the ngawirasa stage. The term ngawirasa is a word formed from the "Kawi-Bali" language, namely from the word ngawi which means creating or making, and rasa meaning feeling or feeling (Dibia, 2020: 34). The combination of these two words implies the presence of a desire to create in the mind of the artist. The next desire encourages the birth of inspiration.

Inspiration is often mysterious. Sometimes it appears suddenly in such a fast time, but there are also those that appear in a very long time. The same thing happened to Ary Wijaya. Sometimes it is very easy to get inspiration, but also sometimes it is very difficult to get it. Usually to stimulate and get inspiration, Ary Wijaya does a number of activities such as reading, discussing, watching movies, listening to songs/music, setting the studio atmosphere, and finding new tools and software. But sometimes his inspiration was born from the problems of technology and music he experienced.

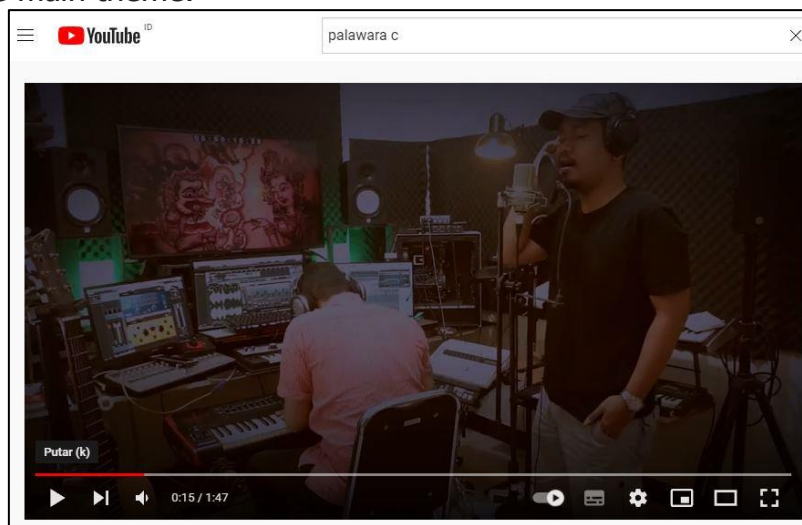
Ary Wijaya realizes that the presence of DGM as a new format in the realm of gamelan music creation is still experiencing struggles, both in terms of ideas, forms of work, and presentation arrangements. The critical discourse on the birth of DGM that he often hears is the question of what advantages can be presented from DGM's works, as well as what kind of novelty the concept and quality can offer. Just as DGM is considered only as a work born from patches of soulless tones that are far from the impression of creativity, authenticity, and originality. Similar to the pastiche art of the postmodern era. Pastiche as a work containing borrowed elements has negative connotations, such as poor creativity, originality, authenticity, and freedom (Piliang, 2003: 187).

Ary Wijaya does not fully agree with the critics who state that DGM is a pastiche art, which is realized from the process of imitation and paste from borrowing elements from the past, lacking creativity, and originality. According to him, the quality of DGM does not only depend on the technological tools used, but also depends on the composer's creativity in displaying novelty ideas and discoveries he gets from a research, both research on the advantages and disadvantages of the technology used, as well as research on other things. matters relating to musical and non-musical elements. These various DGM problems have given much impetus to Ary Wijaya to find fresh and original work ideas.

In addition to creating on his own intentions, Ary Wijaya also created DGM in the context of 'made to order'. In this case, the inspiration that stimulates him to work comes from a theme offered by the customer. He has created many types of ordered works, such as contemporary dance accompaniment by ISI Denpasar students, ethnic gamelan music, teaser illustrations, and many more. All of them have a predefined theme. For example, Ary Wijaya received

an order from the Cultural Service of the Bali Provincial Government to work on teaser music for the theme of the 2021 Bali Arts Festival with the theme "Purna Jiwa Prananing Wana Kertih" Jiwa Paripurna Napas Pohon Kehidupan.

From this theme, Ary Wijaya then looked for ideas to work on music that matched the theme and visuals provided. The trees and the myth of the formation of the forest are the keys to the musical theme that will be realized. Sound sources made from wood and bamboo instruments provide a stimulus for Ary Wijaya's musical ideas to be transformed into musical elements such as timbre, melody, tempo and others. The stories of Dewa Vishnu and Basundari then provide inspiration for non-musical ideas to be transformed into texts to confirm the themes raised. So, even though the theme has been given, Ary Wijaya said there are sub-themes that can be used as inspiration to work to support the main theme.



[Source: Palawara C Youtube Screenshot, 2022]

**Figure 1.** The Process of Making Music for the 2021 PKB Theme Teaser

The things that also gave Ary Wijaya the idea to work on DGM were the diversity of traditional music, Western music, and ethnic music that exist all over the world. According to him, the style, genre, technique, and distinctiveness of each music that exists around the world are endless inspirations to explore. One of the inspirations that Ary got from the many types of music around the world was making hybrid or fusion music. According to him, there are so many types of Balinese gamelan that can be used as a medium for collaborating with various existing musical styles. This idea is also inspired by the many MIDI music works that combine gamelan and Western music, which do not have a 'good' quality of production and are just patches. Ary Wijaya said that every musical culture, be it gamelan or Western music, has its own advantages. According to him, these advantages are interesting to be combined into a new repertoire, by not causing degradation of the aesthetic stability possessed by each of the music, so that it does not produce kitsch (cheap) works.

Finally, Ary Wijaya also got many creative ideas from his technological explorations. The development of hardware, software and instrument and



effects plugins that offer a variety of new sounds and new ways of composing music has inspired Ary to turn it into DGM's work. From these new voices, Ary had the idea of turning them into various experimental works in a post-realist form. With new inventions in terms of technology, Ary feels that his 'wildness' imagination has room to be realized without any binding rules.

### **Exploration Stage (Ngawacak)**

Ngawacak is basically a research stage carried out by an art creator to finalize the idea or concept of his work. At this stage, usually an art creator conducts a study of relevant literary sources, interviews experts who are considered competent, including watching and watching performances in order to gain insight into the idea being thought out or planned. In addition, the purpose of ngawacak is to ensure that the novelty of the copyrighted work will be realized, both in terms of ideas, form, content, and presentation arrangement (Dibia, 2020: 37).

To produce good works, Ary Wijaya does a lot of wacakging processes on ideas that will be realized into a work. He does this in order to enrich his imagination and finalize the concept of working on what he will make. Based on the research conducted, there are three ngewacak processes carried out by Ary Wijaya to turn his work into a quality work. First, researching sources related to the technology used to create DGM. He did this process by digging up various technological knowledge from several internet and youtube sources.

Ngewacak to sources related to musical culture and the processing of musical elements. He did this because he didn't want his work to be random and far from ethics and aesthetics. For example, when he wants to create hybrid music, he conducts research on the musical culture or gamelan he will combine and identifies the various characters possessed by each of these music and instruments. This he can do by watching or discussing with the experts.

Third, engage with non-musical sources of ideas such as the theme of the work to be realized. For this matter, Ary Wijaya applies it by exploring sources from various literatures according to the theme being carried, then conducting discussions to get enrichment of the theme of the work to be made.

In addition to realizing the work into quality works, Ary Wijaya also carries out the ngewacak stage to increase the legality of the originality of his work. Especially in the digital space, according to him, the originality of the work will greatly determine the image and quality of the composer.

### **Conception Stage (Ngarencana)**

Planning or conception is the stage where the composer composes the design of the work that will be realized into a beautiful work. According to the Big Indonesian Dictionary (KBBI) concept is defined as understanding, opinion (understanding), and design (ideals) that are in the mind. At this stage, ideas that are still at the abstract level are further clarified and compiled into a work concept. The planning or conception stages carried out by Ary Wijaya to create the DGM include several designs, namely determining the working material,

determining the theme, designing the form, structure, and aesthetic concept, to the presentation arrangement.

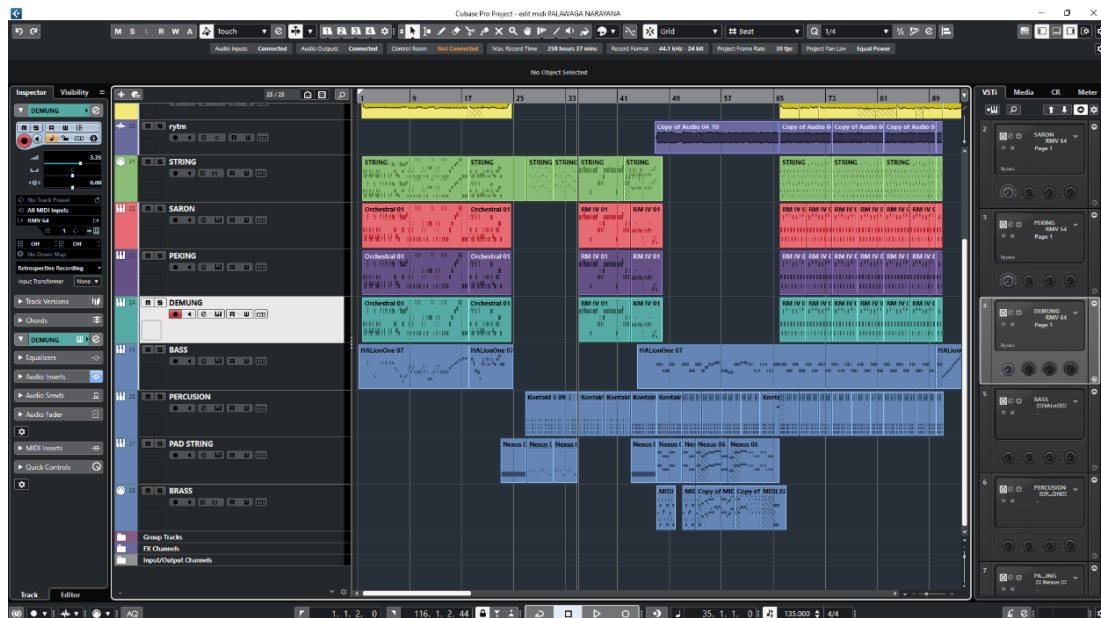
### Execution Stage (Ngewangun)

Ngewangun or execution is the stage where the composer begins to realize his work. The results of working designs and concepts that have been formulated are then poured into a form of work. Ngewangun comes from the word wangun or wake up in Balinese which means to make something come true (Dibia, 2020: 44). In realizing DGM, Ary Wijaya divided this stage into five stages, namely Composing, Editing, Mixing, Balancing, and Mastering.

### Composing

Composing is the stage of composing a musical composition. The design of the work that has been formulated at the planning stage is then poured into digital devices. There are several stages explained by Ary to compose the composition of the DGM, namely:

- open Cubase program
- name the new project page
- pick up the instrument channel
- select the sound on the instrument plug
- determine the tempo
- compose the main melody
- working on the rhythm
- work on chords as harmonies
- If needed, the instrument will be recorded live.



[Source: wahyudita, 2022]  
**Figure 2.** Example of DGM Composition



[Source: Wahyudita, 2022]  
Figure 3. Software Input Record Mic



[Source: Wahyudita, 2022]  
Figure 4. Gamelan MIDI Software



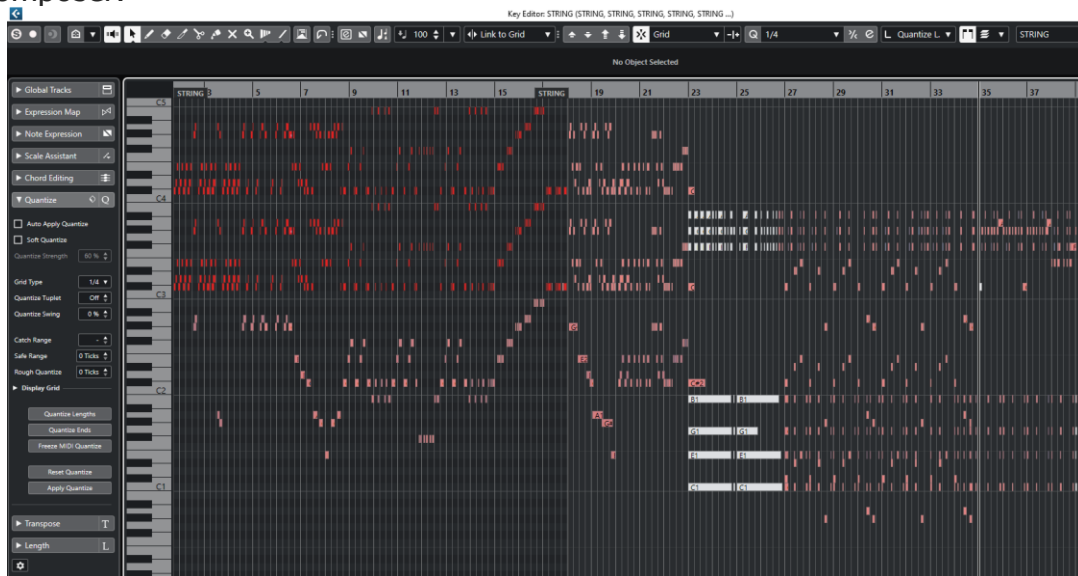
[Source: Wahyudita, 2022]  
**Figure 5.** MIDI Orchestra Software



[Source: Wahyudita, 2022]  
**Figure 6.** Drum MIDI Software

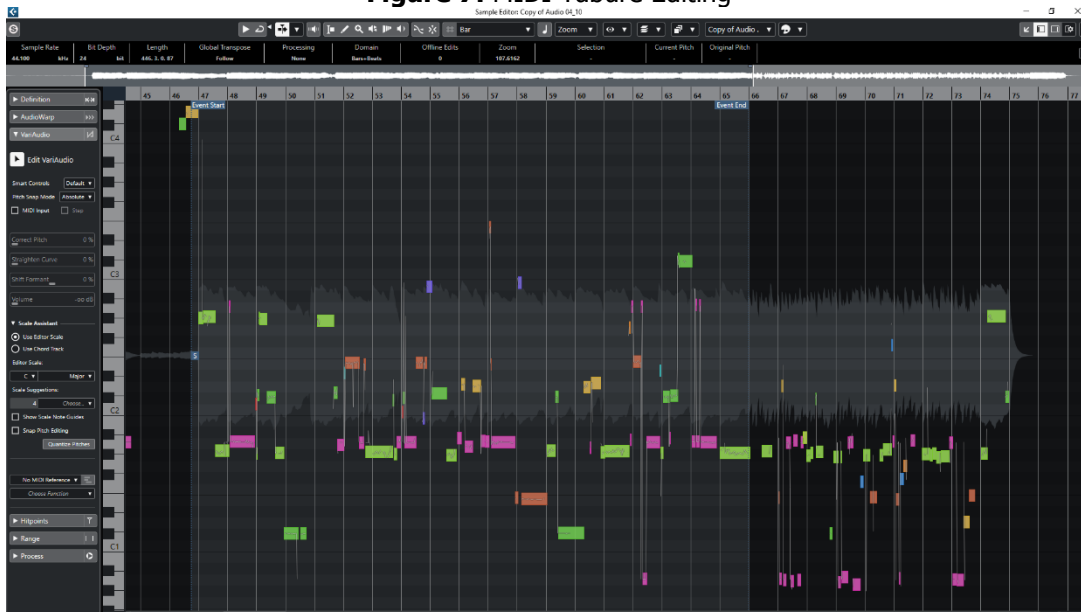
## Editing

Editing is a process to improve the composition that has been prepared. Editing is done with quants, i.e. tidying up MIDI files, as well as audio files to harmonize with the tempo and column of the score table. The stages of the editing process carried out by Ary Wijaya to compose an DGM are quite complicated. The first thing he did was edit all the instruments to match the tempo, rhythm, and pitch. Furthermore, the same is also done for the vocals. Falsely identified vowels are edited for enhanced pitch accuracy and dynamics. After everything is finished, the editing process is continued by removing or adding parts that are considered important in the composition that is made, until the composition has a complete and perfect shape as planned by the composer.



[Source: Wahyudita, 2022]

**Figure 7.** MIDI Tabure Editing



[Source: Wahyudita, 2022]

**Figure 8.** WAV File Editing

**Mixing**

Mixing is an effort to harmonize the loud and soft timbre, sound frequencies of other instruments so that harmony is established. There is a lot of software used by Ary Wijaya to do the mixing process. However, according to him, to realize a good mixing process, the composer's listening sensitivity is still needed to mix it.



[Source: Wahyudita, 2022]

**Figure 9.** Mixing Analyser, Compressor, Equalizer, Bus Compressor, Reverb Delay

**Balancing**

Balancing is a step to balance audio sound. This process is done to balance the entire volume of the instrument's sound or effect sound to match the proportions. In this process, it is important to understand the concept of the work created, such as highlighting parts, and harmonization to make the audio work balanced. Of course this is the same as the mixing process requires hearing sensitivity to feel and ensure the desired sound balance.



[Source: Wahyudita, 2022]

**Figure 10.** Balancing Edit Chanel Track

## Mastering

The last stage of the DGM creation process is mastering. This stage is done after the file is formed and mixed. The next process is to raise the volume to 0 DB. this is the final process to determine the standard sound quality and harmony of the overall musical composition.



[Source: Wahyudita, 2022]

**Figure 11.** Software Mastering

## Presentation Stage (Ngebah)

Presentation of the work is the final stage of Ary Wijaya's creative process to create DGM. The Presentation Stage (Ngebah) of DGM will be different from conventional performing arts. Three things that become elements of traditional performances such as stage, artistic arrangement, and musician's expression are no longer needed in DGM, because DGM is not a performance work but a technological work that can be displayed or played with technology. Two things to think about at the writing stage for DGM are the presentation format and the presentation space. If the final format is only audio, then the format of the work can be made into WAV, MP4, and MP3. However, if the work will be presented in a virtual space, then the subsequent packaging requires visual arrangement with various virtual techniques. Presentation of DGM in virtual art format will allow creators to explore without boundaries, and across time. To showcase DGM into virtual art, the sophistication of technology is something that cannot be ignored. With the sophistication of technology, creators can realize their imagination without being limited by the rules of convention. The conveniences presented by technology in creating virtual art allow artists to hybridize reality with animation which is realized by several techniques, namely collage, moutage and virtual reality.

There are many DGM presentation spaces provided by social media networks such as Youtube, Facebook, Spotify, Instagram Jox, and so on. The problem is, in the end, the quality of the presentation will depend on the quality of the digital devices used by the audience to listen to the work, as well as the internet used.

## Conclusions

DGM is a new phenomenon in the realm of music creation, especially gamelan. DGM was born from the link between gamelan and the development of music technology. For some DGM creators, such as Ary Wijaya, DGM is another way to strengthen tradition and at the same time foster creativity by using gamelan and technology as a medium of inspiration. I Wayan Ary Wijaya as a composer has succeeded in creating quality DGM works. The quality of his work can be observed from the various forms of work that he has produced. From the aspect of ideas, Ary Wijaya has several concepts to realize his work, such as experimental, collaborative, cross-border, and contextual concepts.

In the process of creative work, there are five stages carried out by Ary Wijaya in the process of creating DGM. These stages include: inspiration stage (ngawirasa); exploration stage (ngawacak); conception stage (planning); execution stage (ngewangun); and stage of presentation (ngebah). In the inspiration stage, Ary Wijaya seemed to stimulate his imagination by finding new things that he got from watching and listening to music, reading, chatting, and setting the atmosphere of his studio. In addition, there are three things that stimulate his imagination to work, namely, the musical problems he encounters, the richness of the types of music that exist around the world, and the discovery of new tools or technologies. In the exploration stage, Ary Wijaya explores various sources to create works that have authentic and original values. The exploration he does includes deepening the tools or technology used, deepening the form of the work, and deepening the theme of the work he makes. At the conception stage, it appears that Ary Wijaya made a plan or design of the work which includes the selection of working materials, determining the theme, designing the form, structure, and aesthetic concept, to the presentation arrangement. At the formation stage, Ary Wijaya divided his work stages into five stages, namely composing, editing, mixing, balancing, and mastering. Finally, at the presentation stage, it appears that Ary Wijaya has packaged his work into two forms, namely audio works in the form of MP4 and WAV, and virtual works. Besides being presented in a digital room, Ary Wijaya's DGM works can also be transformed into live performances.

As a new phenomenon, DGM certainly has a number of problems that need to be solved. First, DGM as a terminology is still experiencing struggles in terms of concept definition, form, and creative work process. For this reason, this research is a research that can still be developed and researched further. Second, the birth of DGM from technology products is also synonymous with art and industry. In this context DGM is stated as market music without concept depth. The conveniences provided by technology often lead to the perception



that DGM can be produced quickly at a low price. In fact, technically creating DGM has a fairly high level of complexity.

Lastly, digital technology is a product of capitalism. Behind the conveniences provided by technology to create DGM, it should be noted that all technological devices created are industrial products of the capitalists. Technology cannot be separated from updates, upgrades, viruses, hackers, taxes, and data destruction. Whether this is a new form of 'colonialism' or not, it is very important to investigate further.

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