

សន្និសីទអន្តរជាតិលើកទី១៥ ស្តីពី
តម្លៃវប្បធម៌អាស៊ីប៉ាស៊ីហ្វិក៖

**បញ្ហាប្រឈមនៃវប្បធម៌
ក្នុងយុគសម័យបច្ចេកវិទ្យា**

The 15th International Conference on
Asia Pacific Cultural Values:

**CHALLENGES OF CULTURE
IN THE TECHNOLOGY AGE**

រៀបចំដោយ៖ មជ្ឈមណ្ឌលស្រាវជ្រាវអាស៊ីនៃរាជបណ្ឌិត្យសភាកម្ពុជា
ឧបត្ថម្ភដោយ៖ វិទ្យាស្ថានជ័យសម្រាប់ការសិក្សាជាតិខ្ពស់នៃសាធារណរដ្ឋកូរ៉េ
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CONFERENCE AGENDA

SEMBUNG INSTRUMENTS FOR CREATING THE JAVANESE GAMELAN MUSICAL AESTHETICS

Presented by
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Abstract

This research aims to create a new gamelan instrument that is able to improve the Javanese gamelan musical aesthetics. This instrument was created to replace the role of Bonang Panembung instrument when there were vocals in the repertoire. Based on our experience as Javanese gamelan musicians, the sound of Bonang Panembung with vocals in the repertoire makes it uncomfortable to hear. From the physics of sound's perspective, the sound produced by Bonang Panembung has a high frequency (loud) with a short decay period. These characters are musically unsuitable for the Javanese gamelan musical with vocals, which require soft sounds (low frequency) with a long decay period. Indeed, at first Bonang Panembung was not designed for the Javanese gamelan musical without vocals.

This new gamelan instrument was designed to have a soft sound character like Slenthem instrument, but structurally it has a function as well as Bonang Panembung. For this reason, the instrument was named "Sembung" as an acronym for Slenthem - Bonang Panembung. In making this "Sembung", the researchers collaborated with gamelan maker and tuners. The Sembung instrument has already been tested and the Javanese musicians accept the presence of this instrument. This research is useful for the development of the Javanese gamelan musical science, musical aesthetics development, and economically it will open up business opportunities for gamelan makers to produce Sembung.

Keyword: Sembung; gamelan music; gamelan instrument.

Introduction

In Indonesia, there are many styles of gamelan music. Almost every region has its own style. There are two major styles of gamelan music in Indonesia, namely Yogyakarta Style and Surakarta Style. Both of these styles were strongly influenced by the palaces, namely Surakarta and Yogyakarta Palace. Initially, gamelan music became a part of the means of royal ceremonies. Gamelan instruments consist of *Bonang*, *Gong*, *Demung*, *Saron*, *Peking*, and *Bedug*. Over time, the number of gamelan instruments have increased, and now gamelan is not only the part of the means of royal ceremonies, but also has developed into performances.

The number of instruments continues to grow. Therefore, currently the complete gamelan instruments reach 19 types of instruments namely *Bonang Barung*, *Bonang Penerus*, *Bonang Panembung*, *Gong*, *Kempul*, *Demung*, *Saron*, *Peking*, *Bedug*, *Kendang Ageng*, *Kendang Batangan*, *Ketipung*, *Slenthem*, *Gender Barung*, *Gender Penerus*, *Gambang*, *Siter*, *Rebab*, and flute. Each instrument has a certain tone range. Most of the gamelan instruments are made of metal. There are only three instruments which made of non-metal, namely *Gambang* that is made of wood, *Kendang* that is made of wood and leather, and flute that is made of bamboo. Almost

all instruments are played with a stroke, except for the *rebab* that is swiped, the *siter* that is plucked, and the flute that is blown.

History of Gamelan in Java

Gamelan as the means of royal ceremonies has been around for a long time in the palaces in Java. It is proven from the engraving of several gamelan instruments in the temple (relief). This paper focused on the Yogyakarta gamelan music style. In 1755, the Islamic Mataram Kingdom (built in 1575) was divided into two parts, namely the Kingdom of Yogyakarta which was known as the Yogyakarta Sultanate and the Kingdom of Surakarta which was known as the Surakarta Sunanate. This division of power is not only the division of territory but also the division of part of means of ceremonial, including the gamelan. The gamelan instruments for the Mataram Kingdom ceremony were divided into two parts, some of them were in Surakarta, and some were taken to Yogyakarta.

Sri Sultan Hamengku Buwono I, as the first king of Yogyakarta, instructed his subordinates to add instruments brought from Surakarta. The addition of instruments continued to be carried out, and the addition of instruments continued until the reign of Hamengkubuwono VIII. After that, the gamelan instruments have not been added until now, although for some purposes, there were drums and cymbals also included in the show, especially when used to accompany puppet shows.

At first, the aesthetic of the Yogyakarta gamelan as a means of state ceremony was adjusted to the nature of the first king of Yogyakarta, which is firm, strong, and masculine. Therefore, the gamelan for this state ceremony has the same properties, namely firm, strong, and masculine. This is manifested physically in the form of a bigger gamelan and firmer carvings. The musical system is lower, and the song arrangement jumps.

Since the reign of Hamengku Buwono I to VII, the gamelan music in the palace was in the form of instrumental which only used some instruments and was not accompanied by vocals. Since the reign of Hamengku Buwono VIII, the Yogyakarta Palace's musicians masters began working on soft musical performances of Javanese Gamelan Musical by including several instruments with soft characters such as *gender*, *gambang*, *rebab*, *siter*, and flute and included vocals.

At the time of soft presentation, one of the instruments that did not support the musical aesthetic was *Bonang Panembung*. This instrument is in the form of a bowl that is facedown and given a *pencu* (dome) beaten using a soft stick. The sound produced from this instrument becomes loud and the echoes are short because there is no resonator. The sound produced by this instrument does not match the soft presentation character. For that reason, the researchers try to make new instruments that have a soft character and long echoes. To fulfill this demand, metal bars form with dome were made and given a resonator to produce the right sound using a soft mallet.

***Sembung* Making**

The instrument is designed to have two lines, the top has the same register as *Slenthem*, the bottom has one-octave register below it. Functionally, the *Sembung* instrument used to replace the *Bonang Panembung* instrument when the gamelan is

played softly and includes vocals. When the gamelan is played loudly and does not include vocals, *Bonang Panembung* still plays a role.



Figure 1. *Bonang Penembung*



Figure 2. *Slenthem*



Figure 3. *Sembung (Slenthem – Bonang Panembung)*

How to Play *Sembung*

Sembung is hit on heavy accents on an even count. Two bars are struck together according to the notation presented.



Figure 3. *How to Play Sembung*

Here is the *gending* used for the trial.

Gendhing Dhendhang Sembawa Laras pelog pathet lima

<i>Buka</i> :	. 6 1 .	1 2 1 6	. 2 . 1	. 6 . 5
	# #	# #	# #	# #
<i>Dados</i> :	. . 5 6	2 1 6 5	1 5 . 6	1 . 2 1
	3 5 3 2	3 2 1 6 5	1 5 . 6	1 . 2 1
	3 5 3 2	3 2 1 6 5	1 5 . 6	1 . 2 1
	5 6 1 2	3 2 1 6	2 3 2 1	6 5 3 5

<i>Ngelik</i> :	. . 5 6	2 1 6 5	1 6 3 2	3 1 3 2
	. . 2 3	5 6 3 5	1 6 3 2	3 1 2 3
	. . 3 2	5 4 2 1	6 5 . 6	1 2 3 2
	3 1 . 2	2 1 2 6	2 3 2 1	6 5 3 5

Pangkat Dhawah :

. 3 . 2	. 1 . 6	. 2 . 1	. 6 . 5
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<i>Dhawah</i> :	3 5 2 3	6 5 3 2	1 3 1 2	1 6 3 5
	3 5 2 3	6 5 3 2	1 3 1 2	1 6 3 5
	3 3 6 1	2 3 1 2	5 3 6 1	2 3 1 2

<i>Ngelik</i> :	1 2 1 .	1 2 1 6	3 3 5 2	3 5 6 5
	1 2 1 .	1 2 1 6	3 3 5 2	3 5 6 5
	3 3 6 1	2 3 1 2	5 3 6 1	2 3 1 2
	1 1 2 1	5 6 1 2	1 3 1 2	1 6 3 5

= Sembung position **Aesthetic Test of Playing Sembung**

When testing the play, some musicians gave their impression. Teguh, as a *Gender* musician, said that it would be best if *Sembung* musicians should not only base music notation on an even count, but should also avoid sounding on the same note in a row. For example in the following notation.

1 2 1 .	1 2 1 6	3 3 5 2	3 5 6 5
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In 3565 notation, *Sembung* is not beaten .5.5 but 6.5 in order to form a song. Another example, in 1121 notation, *Sembung* was not hit .1.1 but .2.1.

Other musicians, Didik who is a *Gambang* musician and Suharjo as a *Demung* I musician, said that the reverberation of *Sembung* was too long, so that when the musicians had sounded the next notation, the sound of *Sembung* was still heard. This is musically less favorable or it is necessary to look for *Sembung* beats which are not too tight. For example, in the *Dados* section, *Sembung* was only beaten on the count of four.

Trustha, *Kendang* musician said that *Sembung* should be beaten on the count of 8 and 16 in each row. This was also conveyed by Mr. Anon who is a *Demung* II musician. Playing *Sembung* that is too tight (second count) has dissonant potential. For example, in 3565 notation, *Sembung* was hit by a tone. 6.5. When *Sembung* was

hit on tone 6, the other instruments were hit on note 5, this produced a dissonant tone that was uncomfortable to hear. Meanwhile, Mr. Teguh, the *Gender* musician said that *Sembung* should be made in one line with a frequency register of one octave below *Slenthem* so that the *Sembung* player does not experience difficulties. Organologically the design of the *Sembung* instrument needs to be considered so that the *Sembung* player also sits as well as the other instrument players.

Supto, the vocal musician, said that *Sembung* was indeed needed for a long reverberation, especially at the end of the sentence where the *Kenong* instrument was played. This is intended in order to make an aesthetic stability at the end of the song. Murwanto, a flute musician, said that musically the results of the trial of playing *Sembung* had no problems. Regarding the Javanese gamelan musical style and function in its orchestration or musicality, the existence of *Sembung* can be said to 'not' eliminate the distinctive characteristics of the Yogyakarta style gamelan. How to hit or ring it is in the same position as *Bonang Panembung*. Therefore, it can be interpreted that *Sembung* replaces *Bonang Panembung's* position in gamelan music when there are vocals in it.

The tone colour of *Sembung* sound which is made into a similar shape to *slentho* instrument, which is a form of 'knobbed metal key' or a metal blade equipped with a knob, has a soft sound. Musical aesthetic considerations through *Sembung* can foster harmony in soft piece with vocals.

Sembung has a longer resonance than *Bonang Panembung*. It became one of the steps to develop Javanese Gamelan Musical ideas related to the dimensions of space and time. The instrument, is able to provide reinforcement intonation on the part of the song that needs emphasis on the flow of the song. The emphasis on the part of the song or 'kadensa' that is the up beat at the end of the first half and down beat at the end of the second half of a group of four notes. One of examples is the following song.

Vokal: j6j ! @ j@j j.j 5 j!j 6 5 ! j.j ! j@j ! j5j ! 6 j6j 5 j6j 5
 Lirik: Janji sa-bar tandur ra ke-su-su sa-wahe jembar-jembar pa-ri-ne
 le-mu le-mu
 Sembung: x.x x xx xxxxxxxx.xxx x x x.x c z5x x x x.x x x x.x x
 x x.x x c z6x x x x.x x x x.x x x x.x x c z@x x x xx.x x x x.x
 x x x.x x c!

The choice of tone arranged coherently, the long echo duration can help musicians to remember song patterns and at the same time show the direction to the notes at the end of the group of four notes. How to play both high and low pitches sound effects produced through notes which are at a low register and sound waves, add to the richness of the variety of gamelan sounds, especially in the bass sound quality that so far it is only owned by a small portion from instruments in a set of gamelan (*slenthem, gong suwukan, bonang panembung, and gong ageng*).

Further musical exploration can provide space for the development of material on Javanese Gamelan Musical work, namely old material with old work, old material with new work, new material with old work, and new material with new work.

Sembung physical appearance consisting of sound sources in the form of blades equipped with knob which are larger than other instrument blades, equipped with a resonator, and a stand that is made specifically, gives the impression that the instrument was designed with consideration of high musical aesthetic needs. The appearance of *Sembung* made of wood material with carving motif gives the impression of luxury, expensive, and strong, as well as some gamelan collections in the palace.

The position of playing the instrument by sitting in a chair also gives the impression that the instrument has an important function in Javanese Gamelan Musical orchestration. How to beat by using two '*gembel*', which is a stick with a bandage and a rope similar to those used to beat gongs, gives the impression that there is a difference in a set of gamelan that is common and usually found.

Further exploration of the performance of beating and sitting position in certain interests (for example for the creation of new works) can demonstrate the skills of beating, the beauty of motion, the seriousness, and the authority of the performers.

Conclusion

In general, the musicians accept the presence of *Sembung* instrument to enrich musical aesthetic in gamelan music when gamelan is played with soft presentation accompanied by vocals. However, the design of the instrument still needs to be considered so that the *Sembung* musicians can be able to sit as well as other musicians while playing the instruments. Moreover, regarding the playing technique, it is still possible to find the most appropriate possibility for creating the musical aesthetics.

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Phnom Penh, November 14, 2019

Invitation Letter

Prof. Hanggar Budi Prasetya
Lecturer, Puppetry Department,
Indonesia Institute of Arts

Dear Prof. Hanggar Budi Prasetya,

Under the auspice of the Chey Institute for Advanced Studies (CIAS), the Asia Research Center in Royal Academy of Cambodia (ARC-RAC), will organize its annual conference in order to provide a good opportunity for scholars and researchers in the region and the world as well to share knowledge, experiences and viewpoints on the cultural values in the Southeast Asian and Asia Pacific region to promote academic ties among the scholars beyond the borders. Since 2005, our annual conference has been successfully organized fourteen times already in Phnom Penh and Siem Reap, and this year under the theme “*Asia Pacific Cultural Values: Challenges of Culture in the Technology Age*”, approximately 90 scholars and researchers in Cambodia, and the Asia Pacific region will be invited to participate in this conference.

It is our great pleasure and honor to invite you to participate and present a paper in the 15th Asia Pacific Cultural Values Conference, which will be held on **December 19-20, 2019** at Phnom Penh Hotel, Phnom Penh, Cambodia.

The conference will provide an economic class round-trip air ticket, free meals, accommodation and local transportation during the conference’s day.

Your participation will be a great support to the success of the conference and will be deeply appreciated.



Prof. SOK Touch,
President,
Royal Academy of Cambodia

Enclosed: Tentative Program