



A Comparative Study of Playing Patterns on Gambang and Ranat Ek Instruments

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Abstract

Gambang Semarang is one of Indonesia's traditional music which has an instrument made of wood, namely gambang (xylophone). Thai *Pi Phat Ensemble* has a Gambang-like instrument called Ranat Ek. In the presentation, each of these instruments certainly has a playing pattern that is characteristic of the music itself. This study aims to identify and describe the pattern of traditional music playing in the Gambang Semarang, especially the Gambang instrument and the traditional music of Thai *Pi Phat Ensemble*, especially the Ranat Ek instrument. The research method used is qualitative with a musicological approach. Data collection techniques were carried out by using observation, interviews, document studies, and Focused Group Discussions. Data analysis was carried out with the stages of data reduction, data classification, and concluding. The results show that the playing pattern of the Gambang instrument in the Gambang Semarang music contains two types of playing patterns, namely *sekarang Nglagu* and *cengkok ajeg*. While the playing pattern of the Ranat Ek instrument in the Pi Phat Ensemble consists of *kan ti kro*, *kan ti kep*, *kan ti siao mue*, *kan ti sado*, and *kan ti sabat*. The two instruments have similarities and differences in playing patterns which are most likely due to differences in functions and roles in group play.

Keywords: Comparison, Playing Pattern, Instrument, Gambang, Ranat Ek

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INTRODUCTION

Southeast Asia is very diverse from a historical, cultural, and political point of view. However, Southeast Asia is connected by a common environment, history, and culture (Becker, 2018; Lockard, 1995). Like music, for example, Southeast Asian music is strongly influenced by environmental and cultural resources. Southeast Asian environmental resources such as bamboo, wood, and metal allow these

materials to be useful in musical contexts (Spiller, 2004).

Thailand and Indonesia, especially Java, have many basic musical characteristics. The background to this large number of similarities is that the two regions belong to the "gong-chime culture" region of Southeast Asia, which has a characteristic musical ensemble featuring gong-bells-sets of small gongs with knobs, Xylophones (arrangement of logs) instruments, and Metallophones (arrangement of metal

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rods), wind instruments made of bamboo/wood, stringed instruments, and rhythmic percussion instruments such as drums, *kendang*, and *simbal*. The instruments in musical ensembles in the two countries are very similar to each other (Sumrongthong & Sorrell, 2000; Kanchanapradit & Meesawat, 2008; T. E. Miller, 1992; Morton, Duriyanga, 1976; Hughes, 1992).

Thailand has the Pi Phat Ensemble, which is traditional music consisting of the instruments of Ranat Ek (main xylophone), Ranat Ek tum (xylophone), Khong Wong lek (small bonang), Khong Wong Yai (big bonang), gongs, drums (*gendang*), *krui Piang oa* (flute), *rak khang* (bell), *kim*, and *ching* (Thatsanabanjong, 2020; Attakitmongkol k., chinvetkitvanit R., 2004; Jee-ranai et al., 2017; Garzoli & Binson, 2018; Morton, David; Duriyanga, 1976). While Central Java has traditional music, namely Gambang Semarang which consists of the instruments of Gambang, Bonang, Gong, *Kendang*, flute, *Sukong*, *konghayan*, *kecrek* (Septemuryantoro, 2020; Utama & Puguh, 2013; Puguh, 2000; Raharjo et al., 2021; Raharjo & Arsih, 2019; Utama & Puguh, 2013; Sadtiti, 2016).

Although the traditional music of Pi Phat Ensemble and Gambang Semarang have similarities with each other when viewed from the shape of the instrument, the raw materials of the instrument, but not necessarily the playing patterns of these instruments are similar. They may have similar playing patterns or even very different playing patterns. Therefore, it is necessary to conduct a study on the comparison of the playing patterns of traditional Thai music with Indonesia, especially Central Java.

Sumrongthong and Sorrell's (2000) research entitled "Melodic Paradoxes in the Music of the Thai pi-phat and Javanese gamelan" in which the study discusses the melodic and improvisational systems used in each country. Research by Hughes (1992) entitled "Thai music in Java, Javanese music in Thailand: Two case studies" discusses the adaptation of the scale system and melodic improvisation of each

traditional music.

Based on previous studies, research on the comparison of playing patterns between Thai and Indonesian traditional music has never been carried out. Therefore it is necessary to conduct research to know the comparison of each playing pattern. The focus that will be studied is the music of Gambang Semarang from Central Java, Indonesia, especially the Gambang musical instrument, during the Thai traditional music, namely the *Pi Phat Ensemble*, especially the Ranat Ek musical instrument.

METHOD

The study used qualitative with a musicological approach. The research was conducted in two countries, namely Indonesia and Thailand. Data collection used three techniques, namely observation, interviews, document studies, and Focused Group Discussion (FGD). The observation method was done by observing, studying, and understanding the phenomenon done by digging up information directly about the playing pattern of the Gambang instrument on Gambang Semarang music and the Ranat Ek instrument on the Pi Phat Ensemble and then describing it. The interview was conducted by interviewing several respondents, namely several Gambang instrument players in the city of Semarang and Ranat Ek players in Bangkok, Thailand. Document studies were carried out by collecting information in the form of written documents, pictures, videos.

Data analysis was carried out by processing and preparing data for analysis by copying interviews about the playing patterns of Gambang and Ranat Ek, as well as scanning materials, documents, making field notes, and sorting the data based on the source. Then, the data was read, and data reduction was done by selecting, focusing, simplifying, abstracting, and transforming data from field notes or transcripts. The data validity technique used triangulation of sources, methods, and theories. The collected data is then analyzed in three steps: reduction, presentation, and

conclusion.

RESULTS AND DISCUSSION

In general, the instruments in Gambang Semarang music are almost the same as Javanese Karawitan, but not as complete as Javanese Karawitan. Gambang Semarang music uses only a few instruments: xylophone, bonang, gong and kempul, kendang (drums), flute, *kecrek*, *konghayan*, and *tehyang* (fiddle), although, in its development, many Gambang Semarang musical groups began to add saron and *demung* instruments in their performances.

The scales in Gambang Semarang music use western pentatonic scales, namely: 1 (do), 2 (re), 3 (mi), 5 (sol), and 6 (la), without using 4 (fa), and 7 (si) with the basic tone D = do (Rachman, Teangtrong, Utomo, Sinaga, & Cahyono, 2021; Rachman, Teangtrong, Utomo, Sinaga, & Nurcahyono, 2021).

The Playing Pattern of the Gambang Musical Instrument on the Gambang Semarang music

The Gambang instrument in the Gambang Semarang music is played in a sitting position cross-legged facing the instrument, where both hands of the player hold two *mallets* (percussion). The percussion used is made of wood; at the end of the percussion, there is a circle of wood wrapped in a kind of cloth so that the sound produced becomes soft. The way to hold the Gambang percussion is that the fingers of the right and left hands circle/hold the percussion except for the index finger which is attached straight above the percussion.

The playing technique is a way or effort to play a musical instrument with a certain tone or rhythm (Banoë, 2003), while the pattern is a model, system, form, or structure. A rhythm pattern is a rhythm pattern that is repeated regularly throughout the song to form a rhythm unit with a specific name. A rhythm pattern that is repeated regularly from various instruments and played throughout the song.

This rhythm pattern has its characteristics and has a specific name (Banoë, 2003; H. M. Miller, 1958; Rachman & Utomo, 2019; Suhaya et al., 2020). So, it can be concluded that the pattern of music playing is a form, structure of music playing by using certain tones and or rhythms that are carried out repeatedly and regularly throughout the song that forms a rhythm unit with a certain name.

The playing pattern of Gambang Semarang musical instruments does not yet have certain standards that characterize Semarangan music. Most of the playing patterns of Gambang Semarang musical instruments were adopted from several techniques/patterns of Javanese Karawitan music playing, and Sundanese which the Semarang Gambang music players later modified. This causes differences in the playing pattern for each player, but it will be the style of each player itself. Based on the data obtained from several sources, the Gambang playing pattern on Gambang Semarang music has two playing patterns. The first is the Basic Pattern of *Sekaran Tabuhan Gambang Gembyang Nglagu*, and the second is the Basic Pattern of *Tabuhan Gambang Garap Cengkok Ajeg*. This sub-chapter will discuss the two playing patterns of the Gambang musical instrument in Semarang Gambang music.

The Basic Pattern of *Sekaran Tabuhan Gambang Gembyang Nglagu/Octave*

Sekaran is a melodic playing pattern with fixed rhythmic values or combinations that tend to follow the song melody or the development of a song melody (Supanggah, 2009; Widodo & Suharto, 2017). *Nglagu* is a form of wasp pattern that develops from the wasp pattern *mipil*, where the development is carried out at each *seleh*, both in the middle of the *gatra* and the end of the *gatra* by using tones one bar lower than the tone *seleh* to serve as a series of songs. *Gembyang* is a wasp pattern by sounding the top and bottom notes of the same notation simultaneously, which in western music terms, this pattern is called an octave—for example, sounding 1 (do)

low and 1 (do) high at the same time. *Seleh* in karawitan is a sense of stopping at a song sentence, either pausing or stopping (Kurniawati, 2019; Sugimin, 2018; Supanggih, 2009; Widodo & Suharto, 2017). If translated into western music, *seleh* shows the chord/harmony region of the song being played, meaning that if the wasp pattern *seleh* plays 'do', so the song melody being sung is in the do chord region or I major chord level. It can be concluded that the basic pattern of the *Sekaran tabuhan Gambang Gembyang Nglagu/Octave* is a melodic wasp pattern with a fixed rhythmic value or a combination that tends to follow the song melody or development where the development is carried out at each *seleh* by sounding the top and bottom notes of the same note at the same time.

The basic pattern of *Sekaran Tabuhan Gambang Gembyang Nglagu/Oktaf Octave* consists of five types named *seleh*, namely, *seleh do*, *seleh re*, *seleh mi*, *seleh sol*, and *seleh la* where each pattern plays consistently the same two notes but differs by one octave (*nggembyang*) in terms of West is called an octave with an eighth notes (quavers). Low notes are hit or played by the left hand while high notes are hit/played by the right hand.

The basic pattern of *Sekaran Tabuhan Gambang Gembyang Nglagu/Oktaf Seleh 1 (do)* indicates that this pattern is playing a wasp pattern in the I Major chord region. *Seleh 2 (re)* shows that this pattern is playing a wasp pattern in the level II chord region which usually tends to be Minor. *Seleh 3 (mi)* indicates that this pattern is playing a wasp pattern in the third level chord region which usually tends to be Minor. *Seleh 5 (sol)* indicates that this pattern is playing a wasp pattern in the V major chord region. At the same time, *seleh 6 (la)* indicates that this pattern is playing a wasp pattern in the VI minor chord region.

Each basic pattern of *sekaran tabuhan Gambang gembyang nglagu* completely usually requires two bars in each pattern, which is two times four beats because Gambang Semarang music songs mostly have 4/4-time bars, but this depends

on the rhythm of the chord being played. If the chord being played is only one bar long, then only half of the Gambang pattern is played (one bar); if the chord being played has two bars long, then the playing pattern can be full, which is two bars.

The next important note is that each basic pattern of *sekaran tabuhan Gambang gembyang nglagu* is not just playing one note repeatedly, but in one pattern playing several series of adjacent notes which are *ascending* and then *descending* to return to the tone *seleh*. For example, a series of tones that can be used in the percussion pattern *seleh 1 (do)* usually the series of tones used are 1 (do), 2 (re), 3 (mi), 5 (sol), and 6 (la). Each set of notes is played in eighth notes.

The basic pattern of *sekaran tabuhan Gambang gembyang nglagu Seleh 1 (do)*, *Seleh 2 (re)*, *Seleh 3 (mi)*, *Seleh 5 (Sol)*, and *Seleh 6 (La)* can be seen in Figure 1

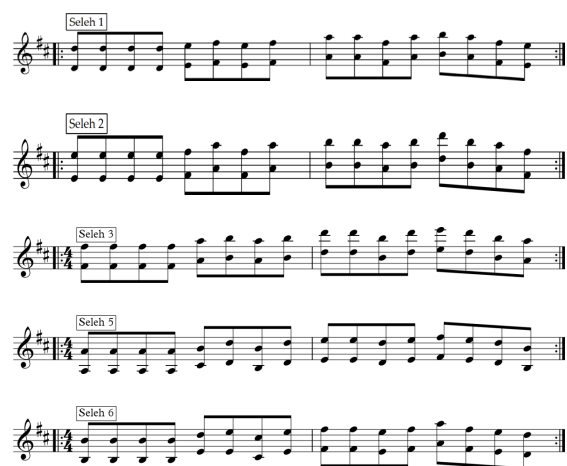


Figure 1. The basic pattern of *Sekaran Tabuhan Gambang Gembyang Nglagu seleh 1, seleh 2, seleh 3, seleh 5, and seleh 6*

Based on the partitur above, the basic pattern of *sekaran tabuhan Gambang gembyang nglagu seleh 1 (do)* on the first bar playing notation 1 (do) on the first two beats, then continued with notation 2 (re) and 3 (mi) on the third beat, return to the notation 2 (re) and 3 (mi) again on the fourth beat, each of which uses the note value of 1/8. The second bar plays notation sol 5 (sol) on the first beat followed by notation 3 (mi) and 5 (sol) on the second beat,

while on the third beat plays notation 6 (la) and 5 (sol) and continues with notation 3 (mi) and 2 (re) on the fourth beat, each also playing eighth notes. Furthermore, *seleh 2*, *seleh 3*, *seleh 5*, and *seleh 6* adjust. But this pattern depends on the player's interpretation because different players will also have different sets of tones that will be used.

The Basic Pattern of *Tabuhan Gambang Garap Cengkok Ajeg*

Garap is cultivating essential elements of the musical and cultural *gending* following the rules that apply character and presentation functions to form a beautiful musical sound composition. *Cengkok* is one of the most frequently used terms to refer to the wasp pattern in karawitan. *Cengkok* is a configuration of tones and/or rhythms that have been determined in length, usually one *gatra*, or multiples, or half, or throughout one sentence of a short song (Haris et al., 2017; Supanggah, 2009; Widodo & Suharto, 2017). It can be concluded that the basic pattern of *tabuhan Gambang garap cengkok ajeg* is a wasp pattern that processes musical elements such as tone configurations and or rhythms with a certain length that is fixed or repeated so that a beautiful composition is formed.

In the basic pattern of *sekarang tabuhan Gambang gembyang nglagu*, the right and left hands play the same rhythmic and tone, but the different octave. Meanwhile, in the basic pattern of *tabuhan Gambang garap cengkok ajeg*, the right and left hands play the different rhythmic and tone. This pattern is only formed in one bar. The right-hand plays a rhythmic half stroke of a constant eighth notes with details on the first and third beats starting with an eighth rest mark followed by eighth notes, on the second and fourth beats playing two eighth notes. While the left hand of the first beat plays the half note then followed by the sixteenth note on the next beat.

The basic pattern of *garap cengkok ajeg* is like playing the *kotheakan* technique, where the right and left hands play a rhythmic pattern that complements

each other. *Kotheakan* is alternately beating technique complementarities between the two similar *ricikan* (instruments) or more at a distance wasp of half beat (Supanggah, 2009). The underlined thing in the *kotheakan* technique is that this technique is played by two or more instruments, which means that it is also possible to play two or more players, but in the context of pattern of *tabuhan cengkok garap ajeg* on the Gambang instrument, it is played by one person and only one *ricikan*. This technique has a very high level of difficulty, it requires agility and coordination between the player's right and left hands. Therefore, the writing into musical notation becomes two levels of the stave, such as grand stave. However, both two levels of the stave use the G key, while grand stave (the writing of the partitur for piano) uses the G key for the top stave and the F key for the bottom stave. In the writing of the pattern of *tabuhan cengkok garap ajeg*, the top stave is a rhythmic/wasp pattern played by the right hand, while the bottom stave is played by the left hand.

The basic pattern of *tabuhan Gambang garap cengkok ajeg* also consists of five types based on the *seleh*, namely *seleh do*, *seleh re*, *seleh mi*, *seleh sol*, and *seleh la*. *Seleh 1* (do) indicates that this pattern is playing a wasp pattern in the I Major chord region. *Seleh 2* (re) indicates that this pattern is playing a wasp pattern in the level II minor chord region. *Seleh 3* (mi) indicates that this pattern is playing a wasp pattern in the III minor chord region. *Seleh 5* (sol) indicates that this pattern is playing a wasp pattern in the V major chord region. *Seleh 6* (la) indicates that this pattern is playing a beat pattern in the VI minor chord region.

The basic pattern of *tabuhan Gambang garap cengkok ajeg* completely requires only one bar in each pattern. The wasp pattern is that the right hand consistently plays two notes, namely the quint note (5), and the sext note (6) each with a value of eighth notes. The first beat begins with an eighth rest followed by eighth quint note (5), the second beat begins with a sext (6) eighth note followed by quint (5) eighth note, the

same as the first beat, the third beat starts with an eighth rest, followed by quint (5) eighth note, then the fourth beat plays sect (6) eighth note and is followed by quint (5) eighth note.

The wasp pattern played by the left hand is to play rhythmic consisting of two notations, namely the prim (1) and the quint (5), where the prim note (1) is the tone *seleh* (tonika), while the quint (5) is the partner. The prim note (1) is played with a half note on the first beat, then on the second beat two quints (5) sixteenth notes are played, followed by a rest and quint (5) with a value of 1/6 and at the fourth beat plays the quint (5) note with a value of 1/6 followed by a 1/16 rest and 1/8 quint (5) note.

The basic pattern of *tabuhan Gambang garap cengkok ajeg seleh 1* (do), *Seleh 2* (re), *Seleh 3* (mi), *Seleh 5* (Sol), and *Seleh 6* (La) can be seen in Figure 2.



Figure 2. The Basic Pattern of *Tabuhan Gambang Garap Cengkok Ajeg seleh 1, seleh 2, seleh 3, seleh 5, and seleh 6*

The Playing Pattern of Ranat Ek in Thai Pi Phat Ensembles

Before learning the playing patterns

of Ranat Ek properly, a beginner should practice playing slowly up and down Phuen in simultaneous octaves to perfect right- and left-hand synchronization. Meanwhile, at the earliest stage, a player learns to produce a balanced sound, the same as between his right and left hands, which he completely controls with his arm, not the wrist. When the simultaneous playing of octaves can be done, players then begin light exercises or simple Thang (Fultz, 1976; Ketukaenchan, 1989; Kosol et al., 2019; T. E. Miller, 1992; Yannavut, 2016).

Ranat Ek has two types of playing patterns or techniques related to composition, namely Kan Ti Kep and Kan Ti Kro. However, many compositions in the Thai repertoire for Ranat Ek are played in the Kep style, which is the oldest playing pattern. Therefore, in this sub-chapter, we will discuss the two playing patterns.

Kan Ti Kro

Kan Ti Kro is a playing pattern by combining the right hand and the left hand to hit alternately and repeated very quickly with the same weight on both hands (Ketukaenchan, 1989; Phukhaothong, 1989). The notes that are hit in the Kan Ti Kro playing pattern are two different tones (pairs), for example, tone 1 (do) paired with tone 2 (re), tone 1 (do) paired with tone 3 (mi), tone 1 (do) paired with tone 4 (fa), tone 1 (do) paired with tone 5 (sol), tone 1 (do) paired with tone 6 (la), tone 1 (do) paired with tone 7 (si), tone 1 (do) paired with a high tone 1 (do), and so on. Kan Ti Kro starts with the left hand hitting a low note and then continues with the right hand repeatedly hitting a high note with the same speed and intensity. This playing pattern aims to produce a tone with a long sound following the wishes of the player and the needs of the song melody. This pattern is made considering the duration of the sound produced by Ranat Ek instrument that is very short.

The playing pattern of Kan Ti Kro can be seen in Figure 3.



Figure 3. The playing pattern of Kan Ti Kro

Based on the score above, we can see that Ranat Ek plays a series of rising melodies with a length of two bars starting from note 3 (mi) and ending with tone 6 (la) by applying Kan Ti Kro. In the first bar, the first and second beats play Kan Ti Kro in low tone 3 (mi) for the left hand, high tone 3 (mi) for the right hand, by hitting the left hand first, followed by the right hand, very quickly, and so on.

Kan Ti Kep

Kan Ti Kep is a playing pattern in Ranat Ek which translates or changes the main melody of the gong *ageng* into a symmetrical group of four tones (semi-quavers) on each beat of the crossbar (in 2/4 of time signature). The rhythm is constant, but the pitch may be different. This semi-quaver figure played with both hands on the Ranat Ek in simultaneous octaves is also used by other pitched percussion instruments.

The interesting thing about Kep is that it is a playing pattern that allows the player a lot of freedom, i.e., he can design his own sequence of notes, in semi-quaver form, according to the basic melody. Thang Ranat Ek in the Kep style can appear in compositions with very simple or highly decorative forms, and since Kep allows both simple and complex Thangs, no special composition is required for use by Ranat Ek novice players who are learning the simple Thang, introduced by their teacher. Other instruments also share this characteristic freedom, or it can be said that this playing pattern reflects Thai society, which is often described as 'loose knitting' (Ketukaenchan, 1989; Phukhaothong, 1989).

A good Ranat Ek player instinctively knows how to produce the Kan Ti Kep technique but finds it difficult to explain how he does it. Furthermore, since Thai music is an oral tradition, there is very

little material or evidence to study. Thus, to understand the playing technique, one must learn it through performance.

Kan Ti Kep has several models, starting with the word Klon, which refers to the sequence or pattern used in Thai poetry.

Klon

Klon is a playing pattern that is a model of Kan Ti Kep by performing various types of melodies in relationship and contact with each other by translating from the melody of the gong, which is the song's main melody. Verse/verse/stanza between the first and last paragraphs must be the same poem. One paragraph is a measure of the length of the 4 Thai notes. An example of a paragraph can be seen in Table 1.

Table 1. Paragraph size in the Thai notation writing system

Length	Paragraph
- - - ช	Paragraph 1
- ล ล ล	Paragraph 2
ช - ด	Paragraph 3
- ล ล ล	Paragraph 4
ช ด ร ม	Paragraph 5
ช - ด	Paragraph 6
ร ม ร ด	Paragraph 7
ท - ล	Paragraph 8

Based on the table above, we can see that the length in one paragraph consists of four beats/tones with a value of $\frac{1}{4}$ (quarter notes). Paragraph one consists of four beats, starting with a silent sign on the first, second, and third beats with a value of $\frac{1}{4}$ (quarter notes), then followed by the tone ช on the fourth beat. The second paragraph begins with a quarter rest, then the second and fourth beats are filled with the tone ล, etc.

The Klon pattern can be seen in the partitur Figure 4.



Figure 4. The Playing Pattern of Klolon

The Klolon in the partitur above plays a nine-bar melody series with a constant note value of 1/8 (eighth notes), where the left hand and right hand play the same note but are struck at an octave interval apart at the same time. The series of melodies start from tone 6 (la) then move up and down, sometimes step up, step down, jump up, and jump down, which returns to the original note, namely tone 6 (la).

Kan Ti Siao Mue

Kan Ti Siao Mue is an octave paired playing pattern commonly called *Khu 8* with a series of melodies moving ascending along an octave, for example, starting from 1 (do) to 1 (do) high but done very quickly. The way to do Kan Ti Siao Mue is that the left hand is on standby on a low tone 1 (do), the right-hand hits a low tone 1 (do) then the *mallet* is pulled (dragged) quickly to the right (ascending) so note 1 (do) is high, when the right-hand mallet reaches the high tone 1 (do) simultaneously the left hand which is already stand by on the low tone 1 (do) hits the low tone 1 (do), so that the low tone 1 (do) and the high tone 1 (do) will be heard simultaneously (octave). This can also be done to the tone 2 (re), 3 (mi), 4 (fa), 5 (sol), 6 (la), 7 (si) in the same way. This method of Ranat Ek with a falling ball with the same sound at the end of this note is usually called *Klolon Ranat Ek*.

The playing pattern of Kan Ti Siao Mue can be seen in Figure 5.



Figure 5. The Playing Pattern of Kan Ti Siao Mue

Based on the partitur above, it can be

described that in the first bar, Kan Ti Siao Mue is played in tone 3 (mi). The way to play it is to hit the left hand by flicking (dragging) to the right very quickly as many as eight tones starting from a low tone 3 (mi) to a high tone 3 (mi) then followed by the right hand hitting the high tone 3 (mi) with a note value of 1/4. In the second bar, Kan Ti Siao Mue is played in tone 4 (fa) by hitting your left hand by flicking (dragging) to the right very quickly as many as eight notes starting from low tone 4 (fa) to high tone 4 (fa) then continued by the right hand hitting the high tone 4 (fa) with a note value of 1/4 (quarter note).

Kan Ti Sado

Kan Ti Sado is a playing pattern by hitting three times in pairs of *khu 8* (same sound) or octaves at the same speed in the western music system. It is based on hitting the spot and subtly increasing the frequency. In real playing, this pattern is also very often used by players.

The playing pattern of Kan Ti Sado can be seen in Figure 6:



Figure 6. The playing pattern of Kan Ti Sado

The Kan Ti Sado above consistently plays a certain note that is hit three times quickly by the left and right hands simultaneously, the left-hand plays the low note (indicated by the notation that has a downward stem on the partitur), the right-hand plays the same note but one octave higher (indicated by the notation that has an upward stem on the partitur) with a note value of 1/16 (Sixteenth note) then followed by a 1/16 rest sign as well. The partitur above plays Kan Ti Sado along four bars with a note value of 1/16 constantly starting from tone 3 (mi) to tone 3 (mi) of the next two octaves. In the first bar, the first beat plays tone 3 (mi), the second beat tone 4, the third beat tone 5 (sol), the fourth beat 6 (la), and so on and are done sequentially

until it reaches the tone 3 (mi) of the next two octaves on the fourth beat fourth bar.

Kan Ti Sabat

Kan Ti Sabat is a playing pattern in pairs with an eight (octave) interval of a series of three notes of equal distance quickly. Kan Ti Sabat is played by waving a series of three adjacent notes in quick succession played by the right and left hands simultaneously. The left-hand plays a low note, while the right-hand plays the same note but an octave higher. Kan Ti Sabat has two types of playing patterns; the first is Ascending Kan Ti Sabat, the second is Descending Kan Ti Sabat.

Ascending Kan Ti Sabat is a playing pattern performing a series of three tones in sequence with octave intervals (left-hand low tone, right-hand high tone) simultaneously starting from high to low tones, for example starting from tone 3 (mi) - 2 (re) - 1 (do) with a quick flick of the hand, then this pattern moves up to the highest tone. While Descending Kan Ti Sabat is a playing pattern performing a series of three tones in sequence with octave intervals (left-hand low tone, right-hand high tone) simultaneously starting from low to high tones for example starting from tone 1 (do) - 2 (re) - 3 (mi) with a quick flick of the hand, then this pattern moves down to the lowest tone.

The playing pattern of Ascending and Descending Kan Ti Sabat can be seen in Figure 7.



Figure 7. The playing pattern of Ascending Kan Ti Sabat



Figure 8. The playing pattern of Descending Kan Ti Sabat

Ascending Kan Ti Sabat plays a series of three notes with a descending movement quickly performed by the left and right hands simultaneously, the left-hand

plays a low tone (indicated by the notation that has a downward stem on the partitur), the right-hand plays the same tone but one octave higher (indicated by the notation that has an upward stem on the partitur). The partitur plays a two-measure Kan Ti Sabat at constant sixteenth notes. In the first bar, the first beat plays a series of notes, namely 5 - 4 - 3, and then the second beat goes up to the next note, which is 6 - 5 - 4, the third beat 7 - 6 - 5, the fourth beat 1 - 7 - 6, and so on.

Descending Kan Ti Sabat plays a series of three notes with a rising movement performed by the left and right hands simultaneously, the left-hand plays a low tone (indicated by the notation that has a downward stem on the partitur), the right-hand plays the same tone but one octave higher (indicated by the notation that has an upward stem on the partitur). The score plays a two-measure Kan Ti Sabat at constant sixteenth notes. In the first bar, the first beat plays a series of notes, namely 1 - 2 - 3, and then the second beat goes down to the next note, namely 7 - 1 - 2, the third beat 6 - 7 - 1, the fourth beat 5 - 6 - 7, and so on.



Discussion

Mrázek (2008) and Sumrongthong and Sorrell (2000) argue that there are several similarities between Ranat Ek and Gambang's playing patterns, namely, first, both move with a fast and regular tone, second, move mostly with conjunct motion, third, the melody is played in parallel octave. In line with Mrázek and Sumrongthong's statement, based on the presentation of the data above, the Gambang Instrument on Gambang Semarang music and the Ranat Ek instrument on the Pi Phat Ensemble music have playing patterns that are almost similar to each other, namely the basic pattern of *Sekaran tabuhan Gambang gembyang nglagu* on the Gambang instrument with several playing patterns of the Ranat Ek instrument.

The first similarity is moving with a fast and regular tone, it can be shown that Gambang and Ranat Ek have a playing

pattern that tends to be fast, namely a melodic movement pattern with a constant/fixed/regular one-eighth notation that fills the entire bar. Melodic playing pattern with eighth-note values tends to have fast characteristics when compared to melodic patterns with quarter notes. This can be seen between the basic pattern of *Sekaran tabuhan Gambang gembyang nglagu* and Kan Ti Klon.

Table 2. The similarity of the eighth pattern

Gambang	Ranat Ek
	

The second similarity is moving mostly by conjunct motion. According to Leon (1979), Perricone (2002), Schmeling (2004), there are two types of melodic motion, namely conjunct motion and disjunct motion. Conjunct motion is a melody that moves gradually (stepping) from one note to the next with a second interval, while melodic disjunct motion jumps from one note to the next with an interval greater than the second interval. The movement of conjuncts can be seen in the basic octave song pattern on the Gambang instrument and the Kanti Siau Mue, Kan Ti Sado, and Kan Ti Sabat patterns on the Ranat Ek instrument. The regularity of the melody with conjuncts can be demonstrated by

the movement of the melodies of the two instruments regularly ascending and then moving down again to the initial tone (descending). This regularity moves following the flow of the song's melody.

The third similarity is that the melody is played in parallel octaves, which can be seen in the basic pattern of *Sekaran tabuhan Gambang gembyang nglagu* and the Kan Ti Kro, Kan Ti Klon, Kan Ti Sado, and Kan Ti Sabat patterns. Both instruments constantly play melodies in parallel octaves, i.e., two notes played simultaneously at octave intervals; for example, a low tone 1 (do) is played at the same time as a high tone 1 (do).

Becker (2018) states that basically, the rhythm between Thai music called Thaw and Javanese music called rhythm has something in common, namely a process of expansion and/or contraction that allows one part to assume different lengths, instrumentation, different styles, and different levels of improvisation depending on the interpretation of each player. This is true because the Gambang playing patterns on Gambang Semarang music and the Ranat Ek playing patterns on the Pi Phat Ensemble is very varied depending on the feeling/mood/and or interpretation of each player. This means that the playing pattern between one player and another is likely to be different even though they do the same type of basic playing pattern.

Table 3. The similarity of conjunct motion

Gambang	Ranat Ek
	
	
	

Table 4. The similarity of parallel octave techniques

Gambang	Ranat Ek
	
	
	
	

Furthermore, according to Mrázek (2008) and Sumrongthong and Sorrell (2000),) there are some differences between the playing patterns of Gambang and Ranat Ek. First, the melodic movements are quite consistent continuously without being interrupted on the Gambang instrument, in contrast to the Ranat Ek instrument, which has several melodic movements with suddenly different rhythms that seem to provide affirmation and tension. This can be seen in the basic pattern of *Sekaran tabuhan Gambang gembyang nglagu*, the movement of the melody is very consistent and uninterrupted, conjuncts move up and down with the rhythm of one-eighth smoothly, while the Ranat Ek instrument sometimes has sudden movements that change in rhythm from one-eighth to suddenly change to the one-sixteenth rhythm as shown in the Kan Ti Sa Mue, Kan Ti Sado, and Kan Ti Sabat patterns.

Second, the Ranaat's melodies sometimes build excitement by taking a 4-beat phrase and repeating it 4 or 8 times, each time turning one note higher (or lower), thereby creating an increased sense of progress. The different types of Ranaat Kep patterns are more distinct, creating a more diverse sense of melody and emotion and changing musical flow. On the Gambang instrument, the emphasis is on smooth-

ness, continuity, and avoiding anything that would stand out.

Third, the Gambang playing pattern only has one style that can be changed slightly to match the atmosphere of a song being played, in contrast to the Ranat Ek which has many variations of playing patterns, namely various fast-playing patterns and tremolo techniques. This difference is slightly different from the results of this study because, in the case of Gambang Semarang music, the Gambang instrument has at least two playing styles/patterns, namely the basic pattern of *Sekaran tabuhan Gambang gembyang nglagu* and the basic pattern of *Tabuhan Gambang Garap Cengkok Ajeg*, where both playing patterns are very different from each other.

CONCLUSIONS

Based on the research and discussion results, it can be concluded that the pattern of playing the Gambang instrument on the music of Gambang Semarang and the ranat ek on the Pi Phat Ansamble has several similarities. The similarities are among others: moving with a fast and regular note, moving mostly with conjunction movements, and the melody being played in parallel octaves, an expansion process that allows one part to assume different

lengths, instrumentation, different styles, and different levels of improvisation. It also depends on the interpretation of each player. However, both also have differences. Namely, the melody movement is quite consistent continuously without being interrupted on the Gambang instrument, in contrast to the Ranat Ek instrument which tends to have several melodic movements with suddenly different rhythms, the different nuances of the melody being played (joyful, tense, and calm).

The differences and similarities may be influenced by the function of each instrument in the group performances. Because the Gambang instrument in Gambang Semarang music tends to function as an accompaniment to the song and prioritizes the balance of playing between instruments, while the Ranat Ek instrument in the Pi Phat Ensemble tends to play a more prominent role compared to other instruments, sometimes it even acts as a soloist.

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