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The Concept of the *Pathet* and Avoided Tones in *Jawatimuran Karawitan*

This study aims at demonstrating the *pathet* in the *Jawatimuran karawitan*. The *pathet* is a musical gesture which frames the motivic direction of a melody or song. Therefore its position is quite essential in the *Javanese karawitan*. However, research of the *pathet* has only been centered in the musical areas of Surakarta and Yogyakarta. In fact, outside the two musical cultures, there also exists the concept and discourse about the *pathet*, which is genuine or unique, as in the *Jawatimuran karawitan*. This study applies the participant-and-observer method, which positions the researcher to be actively involved in the musical community he is studying. This is an effort to bring up a scholarly discourse from the insider's position. The analysis was carried out by sorting and performing musical classifications based on the melodic direction motion of several types of *Javanese karawitan pathets* (*sepuluh, wolu, sanga, and serang*). As a result, this research reveals new facts, namely, that in the concept of *pathet*, the *Jawatimuran karawitan* possesses a specific scholarly, conceptual, and discursive aspect, especially with the emergence of certain avoided tones (*nada sirikan*). This is different from the *pathet* concept in two other musical cultures (namely, Surakarta and Yogyakarta).

Keywords: *pathet*, avoided tones, *Jawatimuran karawitan*, musical classifications, melodic direction movement, Javanese.

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Понятие патета и избегаемых тонов в восточнояванском танце

Данное исследование направлено на выявление *патета* в восточнояванском танце. *Патет* – это музыкальный лад, который определяет мотивное развитие мелодии. Его роль в восточнояванском танце весьма важна. Однако исследование патета сосредоточено только на музыке районов Суракарты и Джокьякарты. В то же время за пределами этих двух музыкальных регионов также существует патет, представляющий уникальное явление, как например, в восточнояванском танце. В данном исследовании применяется метод «участник-наблюдатель», при котором исследователь позиционируется как активный участник изучаемого им музыкального сообщества. Тем самым сделана попытка научного

познания изнутри. Анализ проводился путём классификации и установления нескольких типов мелодического развития в восточнояванских танцах (*сэпулук*, *волу*, *санга* и *серанг*). В результате изучения выявлены новые факты относительно патета, а именно, что в восточнояванском танце наблюдается особое, имеющее научное значение, свойство – определённые избегаемые тоны (*нада сурикан*). Это отличает изучаемый патет от имеющихся в музыкальной культуре двух других регионов (Суракарта и Джокьякарта).

Ключевые слова: патет, избегаемые тоны, восточнояванский танец, музыкальные классификации, мелодическое развитие, яванский язык.

INTRODUCTION

About the *Pathet*

Serat Centhini (1814) accurately records a list of *gending* (a piece of music, a musical work created for the gamelan) titles which classify the *pathets* into six, and this fact shows that the *pathets* have been familiar to many people prior to that [21]. This reality directs scholarly ambition to discover what the *pathets* are, especially those inherent in the classical *gendings*. During the following years, scholarly activities have discovered various theoretical formulas which generally have viewed the *pathet* as a fundamental factor in the *gendings*. Some scholars have stated that this reveals that each *gending* bears the name of a *pathet* [20]. Hood's conception that the "determinant" of the *pathet* is formed by the *balungan* or the primary tones [32] is a phenomenon related to the discovery of the study of the *pathet*. According to Brinner, the concept of the *pathet* is translated as a "mode," something similar to the *raga* in Indian traditional music [7]. Alves adds that "modes" include more than simply the scale of tones available in a *gending* [2].

Another study has revealed that the *pathet* functioned as a *pathetan*, a short suite in which the relevant musical composition formed a prelude to a *gending* and presented several instrumental ensembles,

all of which helped create the necessary atmosphere [11]. The ensemble including such instruments as the *rebab*, the *gender*, and the *gambang* (xylophone) plays a small number of selected *pathetan* by modifying the previously performed composition [6]. This *pathetan* is very closely related to the *garap* (a specific type of musical composition) because it contains a melodic formula called the *cengkok*, signifying musical patterns [35]. According to Roth, the *pathet* is understood to be a temporal conceptual organization, as well as pitch structure in *gamelan* melodies [23]. A prominent feature in the *pathet* is the emergence of the cadential motive that tends to be endowed with metric pressure [2].

The *pathet* also has a significant role in developing musical ideas expressed in the melodic lines as played by the *suling* (flute), *gambang*, *gender*, *rebab*, and *pesiden* or sung by a female vocalist [34]. In other words, the *pathet* is a measure of musical practice and includes ideas, conceptualization, and discourse on *karawitan* knowledge. This study emphasizes that the *pathet* possesses a certain type of meaning from the dynamic interpretation process of analyzing musical works [8]. In this context, it is clear that the historical traces of discussions of the *pathet* in the world of *karawitan* have continued to develop from time to time, and the results of the latest *pathet* studies may be seen in Sri Hastanto's book *The Concept*



of the *Pathet* in Javanese *Karawitan*. The book contains the most recent references related to the discussion, analysis, and presentation of the *pathets* in Javanese music [10].

In the book Sri Hastanto criticizes the analyses of the *pathets* by previous researchers, such as Kunst [14], Hood [12], Judith Beker [3], Perlman [19], and Sumarsam [28]. Hastanto explains that the *pathet* is related not only to the principal tone (the tonic) of a *gong* but is more complicated than that, regarding the functional formulas between the tones (*gembyang*, *kempyung*, *seleh*, etc.), the performing musical instruments, as well as the tone direction, range, and harmony which exists in a *gending*. Nonetheless, studies on the *pathet* in Javanese music, including those undertaken by Sri Hastanto, have tended to have a positivistic approach in their nuances. Sri Hastanto continues to regard the *pathet* issue as a musical symptom that will be completed or exhausted after he has rectified or provided a bridge to a new type of understanding of the *pathet* that is different from his previous writings. If the *pathet* is a *karawitan* – related musical issue, as is the nature of musical works, it will undoubtedly lead to significant change and development of musical dynamics. These changes in a musical work or *gending* also result in a change of the conceptualization of the *pathet*. Therefore the discourse about the *pathet* will continue to change and continuously undergo modification.

Considerations about the *pathet* will follow the dynamics of the development of musical compositions (*karawitan*). Is the main issue often expressed today in the importance of discussing and reviewing the *pathet*? Do the latest musical works still use *pathet* formulas in a strict manner? Reviewing the *pathet* in the *karawitan*

seems, on the one hand, to present an effort to formulate or conceptualize academic thinking about the *karawitan*, but on the other hand, it is often considered futile by observing the development of the world of *karawitan* works which no longer considers the discourse of the *pathet*, even in shadow puppet shows, the *pathet* has not become an important reference point again. However, reviewing the *pathet* is an effort to find a relationship or connection so that the world of *karawitan* work goes according to the world of musical thought. The ideal measure of *karawitan* scholarship (in other languages it is called *karawitanology*) may be well formulated as long as the notion of the *pathet* can be understood. Besides, in the case of the *Jawatimuran karawitan*, reviewing and explaining the *pathet* presents concisely the effort of building the basic foundation for the formation of *karawitan* scholarly studies in East Java, which up to now has not been well developed and well-established.

Therefore, discussion of the *pathet* in the Javanese *karawitan* in this study determines the urgent necessity of its further development. The main criticism in *pathet* studies, as it has developed so far by scholars, as the aforementioned Sri Hastanto, often uses the terminology of the word “Javanese *Karawitan*,” which seems to represent fully and comprehensively all the areas of the Javanese *karawitan*. Whereas the Javanese *karawitan* possesses a sub-culture, each respective style has different perspectives, concepts, discourses, and characters. Likewise, the *Jawatimuran karawitan* is endowed with unique qualities that are different from other *karawitan* styles.

THE METHOD

The information for this research has been obtained in three stages. First, the

researcher was actively involved as a participant and observer for the sake of obtaining musical data. Often musical issues are much more complicated than it appears on the surface. The researcher tries to “feel,” becomes involved as an involved person (i.e., a musician), plays the *Jawatimuran karawitan* repertoire in accordance with the research topic. However, from the beginning, the awareness of treating oneself as a researcher (rather than as a musician) is to be understood in such a way that the boundaries of conflict could be avoided entirely. The data obtained at this first stage demonstrates the tendency that the *pathet* in the context of the *Jawatimuran karawitan* is not only a matter of calculating numbers from the tone position, but also involves a more complex issue, namely, that of “musical taste.” Such data would not be possible to obtain, had the researcher only made observations, without additionally being involved as an “active participant.”

Second, the data has been obtained through interviews. The latter have been taken from musicians and musical observers who were evaluated as being competent for explaining the *pathet* issue in the *Jawatimuran karawitan*. The things that the researcher did not understand in detail while acting as a participant and observer have found an ideal answer after being confirmed or asked regarding the related sources. The third means of obtaining information was by reading various references. Reading the referential literature is essential for knowing the musical perspective of things perceived either as the same or as different by the *karawitans* in East Java, Surakarta or Yogyakarta. At the same time, it is necessary to assert that this research is different from previous studies. Simultaneously, it becomes a kind of alternative means of viewing the phenomenon of the *pathet* in a

broader musical context (*Jawatimuran*).

The next stage of the work was to analyze the acquired data. The process of analysis is not carried out simply by cerebral research, but by actively involving the musicians related to it. The researcher realizes that the *pathet* is a complex musical issue, so that the involvement of the community of musicians who perform this music is essential. This is an effort so that the results of the analysis have the truth that can be justified. Besides, by involving musicians or related figures, it seeks to highlight the discourses, ideas, and discoveries related to the *pathet* in the *Jawatimuran karawitan* from an insider's “point of view.” Likewise, the final results of the analysis are presented in the form of categories and codification of the existing discoveries, then “returned” to their source (the musicians and the Javanese *karawitan* community) to receive feedback in the form of corrections, suggestions and criticism. Thereby, in this research the *pathet* indirectly summarizes the “voices” of the *Jawatimuran karawitan* community which have not been discussed in full.

DISCUSSION

The Pathet of the Jawatimuran Karawitan

Soenarto [26], Sukei [22], Mistortoify [15], Setiawan [25], Wisma Nugraha [18], and Munardi [17] are some of the researchers who have been concerned with the *pathet* issues in the *Jawatimuran karawitan*. In this context a review of the *Jawatimuran pathet* will be more focused in the *laras slendro* (five-tone pentatonic, intervals where the distances between the tones have approximately the same frequency standard [5]), considering that the music of most of the *karawitan* area in *Jawatimuran* consists solely of the *laras slendro*. The *Jawatimuran karawitan* has

four *pathets*, namely, the *sepuluh*, *wolu*, *sanga*, and *serang*. Munardi [17] explains, albeit not in a very specific manner, that the *pathet* in the *Jawatimuran karawitan* presents a musical introduction usually carried out by playing the *rebab*, *gender*, *gambang* and *suling* [34]. An introduction is a short composition that covers all the specific tonal areas [4]. This kind of introduction which sets up the *pathet* is also called the “*pathetan*” [10].

Unfortunately, the explanation above still receives criticism from various sources, considering that not all of the *gending* repertoire of the *Jawatimuran karawitan* is performed together with the *pathetan*. For example, the *Gending alit* (small repertoire) – the *Cokronegoro*, *Samirah*, *Luwung* and *Jula-Juli* – is often played by the *buka bonang* (involving percussion instruments, such as 12 small gongs, which play a short melody or introduction, as an indication that the piece will be subsequently performed), its dramaturgy subsequently emphasized with a *kendang* or drum. Some of the *gendings* even have melodic contour forms, very similar to each other, but, nonetheless, classified into different *pathets* [13]. Munardi's view of determining the *pathet* concept in the *Jawatimuran karawitan* has also been criticized by Hastanto [10]. Hastanto, Sutton [29], and Kiesewetter [36] explained that the *pathetan* could not fully reach out and present the form of the *pathet* in a musical work or *gending*, primarily because the repertoire was more often than not performed without the

introductory *pathetan*.

Soenarto [26] and Wisma Nugraha [18] elucidate that the *pathet* concept in the *Jawatimuran karawitan* is based on the mathematical calculation formulation of the *gender* instrumental blade. Soenarto and Wisma both mentioned that the classical *gender penerus* instrument in East Java originally had ten blades, starting from tone 2 (read: *tenggok* or *ro*) and ending at tone 1 (namely, the *pethit* or *ji*). From the number of ten blades, the calculation of the appellation of the *Jawatimuran pathet* has been determined. For more details, see the following Figure 1.

Tone sequence	2	3	5	6	1	2	3	5	6	1
Tone name	<i>tenggok</i>	<i>sanga</i>	<i>lima</i>	<i>nem</i>	<i>sorog</i>	<i>tenggok</i>	<i>sanga</i>	<i>lima</i>	<i>nem</i>	<i>pethit</i>

Figure 1. Names of the tones in the *Jawatimuran karawitan*-based *gender penerus* blades.

To determine the name of the respective *Jawatimuran pathet*, the following sequence calculation is carried out from the highest to the lowest tone, if one reads the following table from right to left. For more details, see the following Figure 2.

Tone sequence	2	3	5	6	1	2	3	5	6	1
Tone name	<i>tenggok</i>	<i>sanga</i>	<i>lima</i>	<i>nem</i>	<i>sorog</i>	<i>tenggok</i>	<i>sanga</i>	<i>lima</i>	<i>nem</i>	<i>pethit</i>
General name	<i>Ro</i>	<i>lu</i>	<i>ma</i>	<i>nem</i>	<i>ji</i>	<i>ro</i>	<i>lu</i>	<i>ma</i>	<i>nem</i>	<i>ji</i>
Order of calculation	10	9	8	7	6	5	4	3	2	1

Figure 2. The *Pathet* calculation from the high to the low tones (examine the order of the calculation column)

Furthermore, the tones that become strong accents on the *pathet* can be determined from the calculation of the *gender* blades above. For example, the *pathet sepuluh* (10) is taken presented on the count of ten (java: *sepuluh*) from the right to left tone sequence. As a result, this *pathet* name has a heavy accent (tonic) in w. The

pathet sanga (nine) and *wolu* (eight) are based on the count of the ninth and eighth tones. The details of this will be described in the following Figure 3.

Tone sequence	2	3	5	6	1	2	3	5	6	i
Tone name	tenggok	sanga	lima	nem	sorog	tenggok	sanga	lima	nem	pethit
General name	Ro	lu	ma	nem	ji	ro	lu	ma	nem	ji
Order of calculation	10	9	8	7	6	5	4	3	2	1

Figure 3. The formula specifies the *pathet* name based on the calculation sequence.

Thus, the *Pathet sepuluh* bears the tone of 2 as the strongest tone. Soenarto [26] labels it as the tonic or main tone, used as the final gong (the last tone played of a piece or *gending*). Furthermore, to determine the dominant and sub-dominant tones, the ones that are still a part of the *pathet sepuluh*, the occurrence can be explained as follows.

Tone sequence	2	3	5	6	1	2	3	5	6	i
Tone name	tenggok	sanga	lima	nem	sorog	tenggok	sanga	lima	nem	pethit
General name	ro	lu	ma	nem	ji	ro	lu	ma	nem	ji

Figure 4. Tones in the *pathet sepuluh*

The result is that the *pathet sepuluh* has the main tone of 2, while the dominant tone is 5 (labeled *kempyung*). A *kempyung* is an interval separated by two tones (an interval that is somewhat close to the concept of “fifth” in Western music [10]), while the *gembyang* is a one-tone interval. The

figure above can be mapped according to the range of the tones’ areas in the *pathet sepuluh*, namely, 2 as the main tone, 5 as the dominant tone, and 6 as the sub-dominant tone (called *sub kempyung*). However, in practical reality, the *pathet sepuluh* not only contains the main tones of 2 and 5, but often makes use of other tones. Thereby it becomes apparent that the discussion of the *pathet sepuluh* is not completely exhausted.

This is followed by the *pathet wolu*. The calculation method is also the same as that of the *pathet sepuluh* above, namely by counting eight sequences from the highest tone (right) to the lowest (left). In the *Jawatimuran karawitan* the repertoire of the *pathet wolu* is the primary choice over all the other pathets. For example, in the *ludruk* performances, since they have first been established, the *pathet wolu* repertoire has always presented the primary choice, starting from the *Jula-Juli*, *gending dolanan*, *ayak*, *krucilan*, etc. The perspective of the tones in the *pathet wolu* can be explained as follows.

Tone sequence	2	3	5	6	1	2	3	5	6	i
Tone name	tenggok	sanga	lima	nem	sorog	tenggok	sanga	lima	nem	pethit
General name	ro	lu	ma	nem	ji	ro	lu	ma	nem	ji

Figure 5. Tones in *pathet wolu*



As can be seen in the figure above, the tones in the *pathet wolu* consist of: 5 as the main tone or tonic (*gembayang*), 1 as the dominant tone (*kempyung*), and 2 as the sub-dominant tone (*sub kempyung*). The tonic and dominant tones can be used as the gong (or final) tone. Next in importance is the *pathet sanga*. It is in this context that there occurs some confusion over the calculation method. By counting the number of tones from the right to the left, ideally, the *pathet sanga* bears the main tone of 3 (as can be explained by the previous explanation, especially the calculation sequence column), the dominant tone of 6, and the sub-dominant tone of 1. The calculation of the *pathet sanga* tones region can be observed in figure 6.

Tone sequence	2	3	5	6	1	2	3	5	6	i
Tone name	ro	lu	ma	nem	ji	ro	lu	ma	nem	ji
General name	1	2	3	4	5	6	7	8	9	10

Figure 7. The real main tone position of the *pathet sanga*

	<div style="display: flex; justify-content: center; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">KEMPYUNG</div> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">SUB-KEMPYUNG</div> </div>									
Tone sequence	2	3	5	6	1	2	3	5	6	i
Tone name	tenggok	sanga	lima	nem	sorog	tenggok	sanga	lima	nem	pethit
General name	ro	lu	ma	nem	ji	ro	lu	ma	nem	ji
	<div style="display: flex; justify-content: center; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 5px;">GEMBYANG</div> </div>									

Figure 6. The tones in the *pathet sanga*

In practice, the *pathet sanga* has the main tone of 6, the dominant tone of 2, and the sub-dominant tone of 3. How does the tone of 3, which originally presents the main tone, turn into the sub-dominant tone, when even the presence of that tone cannot be used as the final gong. In regard to this, Soenarto [26] explains that the role of the main tone and the dominant tone can, indeed, be used as the final gong. According to the simple calculation of the *pathet sanga*, as presented above, 3 is the main tone, while 6 is the dominant tone. Thus, according to Soenarto [26], the *pathet sanga* has the main tone of 6, not 3. The explanation provides

a discrepancy. Wisma Nugraha [18], while discussing the issue of the *pathet* in the *Jawatimuran karawitan*, avoids any discussion of this discrepancy, as does a number of other researchers, including Sugiarto [27], Timoer [33], and Munardi [17]. A number of different opinions confront each other. According to Zaini (in a personal communication, September 13, 2016) and Kukuh Setyobudi (in a personal communication, September 16, 2016), the *pathet* calculations must be presented not in the order from the high to the low tones, but from the low to the high tones. This is best described in the following figure.

Careful examination must be made of the column of calculations, which have been reversed above. If counted in the order from left to right (i.e. from the low tones to the high tones), then

the ninth tone is endowed with the number 6 (nem). At a first glance, such calculations may find their justification, especially in the context of the *pathet sanga*. However, the method of reversing the order of the calculations above is not devoid of fault; when it is counted from left to right (or low to high tones), the *pathet sepuluh* number 10 falls on the tone of 1, whereas in practice, the main tone actually bears number 2. By reversing the *pathet* calculation sequence in the aforementioned manner, the calculation continues to be flawed in the likesame manner, being right in the case of one *pathet*, but wrong in the other aspect of the

pathet, and so on. Interestingly, there is one other *pathet* available, named the *serang*. The tones in the *pathet serang* are obtained from calculations similar to the *pathet sanga* above, moving from right to left, or from the high to the low tones, with the main tone bearing the number 3, the dominant tone of 6, and the sub-dominant tone of 1.

Some scholars state (Yohan, personal communication, May 17, 2017) that the *pathet serang* has the smallest amount of musical repertoire, if compared to the other pathets. The *Jawatimuran karawitan* notation books do not mention the *gending* in the *pathet serang* at all, as confirmed by Soenarto [26], Adiyanto [1] and Tasman [31]. In other words, this *pathet* was intended not for musical concerts, or the *klenéngan*, but rather for the shadow puppet shows (and even so, in a limited pattern). The *pathet serang* is performed last in order, after all the other pathets have been played. Surwedi (in a personal communication, September 16, 2017) argues that the *gending* in the *pathet serang* was created particularly for the *Jawatimuran* shadow puppet show. Surwedi explains that the musical dramaturgy of the *Jawatimuran* shadow puppet show requires one *pathet* as the climax of the performance. The *Pathet sepuluh*, *wolu*, and *sanga* are seen as being unfit to accommodate the dramaturgical flow of the desired musical drama. The name of *Serang* was then born from the word "*Sereng*," which means rowdy, tense, i.e. very suitable for the ending or culmination of a theatrical performance.

Therefore, the function of this *pathet* is to appear at the end of the shadow puppet show with a musical dramaturgy that is swift, willful, and loud. The appropriate time for its use is also absolutely minimal. The *Pathet serang* is played particularly during the timeframe shortly before the shadow puppet show ends, not frequently anywhere else in the performance. In some

cases, the *gending* in the *pathet serang* is brought in as a sign to the audience that the *Jawatimuran* shadow puppet show is coming to an end or approaching a climax. Crawford [9] presents the following division of the *pathet* time frame in the *Jawatimuran* shadow puppet performance with puppeteer Ki Piet Asmoro in Mojokerto.

1. <i>Pathet Sepuluh</i>	: 7.30 pm – 10 pm
2. <i>Pathet wolu</i>	: 10 pm – 01 am
3. <i>Pathet sanga</i>	: 01 am – 3.30 am
4. <i>Pathet serang</i>	: 3.30 am – 5.00 am

Figure 8. The duration of the *pathet* use is given here as it occurred during Ki Piet Asmoro's puppet show performance in 1980.

Eight years later, S. Timoer [33] made observations in another area, specifically Ki Suleman's performance at the Gempol Pasuruan. The classification of the time distribution of the *pathet* is as follows.

1. <i>Pathet Sepuluh</i>	: 8 pm – 9 pm
2. <i>Pathet wolu</i>	: 9 pm – 2 am
3. <i>Pathet sanga</i>	: 2 am – 4.30 am
4. <i>Pathet serang</i>	: 4 am – 6 am

Figure 9. The duration of the *pathet* use is given here as it occurred during Ki Suleman's puppet show performance in 1980.

The documentation by Crawford in 1980 and S. Timoer in 1988 has certainly changed to a considerable degree at this point of time. Shadow puppet performances are presently experiencing a curtailment of duration due to the demands of the present times. Moreover, the increasing duration of time for entertainment programs (labelled as *limbukan* and *gara-gara*), which automatically make use of the *pathet*, has also changed significantly. Usually shadow puppet shows end at 3.30 or 4:00 AM. Due to the shorter time for the performance, the use of the *pathet serang* has also become more

limited in its duration, no longer lasting one or two hours, but approximately 30 minutes before the stage ends (compare it with the time in the figure above). The *gendings* of the *pathet serang* in the shadow puppet shows are: *ayak*, *krucilan*, and *gemblak*. For the other varieties, especially the *klenéngan* (or the gamelan music concerts), up to the present time researchers have not found any ideal examples, including any references, documentation, or notation of Jawatimuran *gendings*, as mentioned above.

There often occurs confusion in determining the *Jawatimuran pathet*. A *gending* can be grouped into different *pathets*. Many of Jawatimuran's notated musical scores refer to the Surakarta style *pathet*, so that in this context discrepancies, confusion and bias often emerge [34]. One of the reasons is because the concept of the *pathet* in Central Java, especially Surakarta, was considered to be more established than in East Java. It does not stop there; the terminology and classification of the Jawatimuran *pathet* are often confused with each other. A *gending* can be referred to in two different *Jawatimuran pathets*. The most ambiguous genre is the *pathet sepuluh*. In this regard, Sutton further explains:

“The *pathet sepuluh*, as many musicians say, is somewhat difficult to characterize according to strictly musical criteria. *Gending* classified as *sepuluh* often consist of certain passages that clearly suggest the *pathet sanga* and others that clearly suggest the *pathet wolu*. Hence the variability involving the *pathet sepuluh* is not surprising. More remarkable are the musical pieces listed both as *wolu* and as *sanga*, which are supposedly easily distinguishable categories. A number of these involve several *gongan*, with one ending on 6, typical of *pathet sanga*, and another on 5, typical of *pathet wolu*. Others feature melodic passages typical of both

wolu and *sanga* and on *gong* tone 2, but are not classified as *pathet sepuluh*.”[34]

The *pathet sepuluh* presents an interesting case. Bambang Sukmo Pribadi (in a personal communication, August 10, 2016), Suntoro (in a personal communication, July 7, 2017), and Surwedi (in a personal communication, September 16, 2017) explained that the *pathet sepuluh* is unique where this *pathet* is an abstraction of all the existing *pathets*. Therefore, in the Jawatimuran shadow puppet show, this *pathet* was performed earliest of all. It is intended as a step to introduce and reach all the tonal areas in each *pathet*. Therefore, for the *pathet sepuluh*, it cannot be calculated like any other *pathet* via the tone sequence formula on the *gender penerus* blades. Thus, the strongest *tones* in the *pathet sepuluh* become distinguished and cannot be determined. The *laras slendro* tones can present the strong main tones or tonics in the *pathet sepuluh*, although most of them are usually found on tones 2 and 5. When referring to the previous explanation, in addition to the main tone, the dominant tone can also present the final *gong*. If the tone of 2 is the main tone in the *pathet sepuluh*, then ideally the tone of 5 (dominant) can also present another one of the strongest tones and become the final *gong* tone.

It is at this point that confusion often occurs. In many of the *karawitan* notations all the *gendings* endowed with the main tone of 5 are categorized as *pathet wolu*, even though they may very well be *pathet sepuluh* (an example of this case is the *Gending Gandakusuma*). Another example is the *Gending Cokronegoro*. From several references obtained, this *gending* is categorized into two different *pathets*, namely, the *sepuluh* and the *wolu*. Tasman [31], Diyat [24] and Mudiyanto [16] mention this *gending* as the *pathet sanga*, while Soenarto [26] and Adiyanto

[1] call this *gending* the *pathet sepuluh*. The following are the related *gending* notations.

Bk:	6365 6621 321(6)
	[.1.6 .3.2̇ 6.5 .3.2̇
	.3.2̇ .6.5. 2.1 .2.(6)]

Figure 10. The notation of the *Gending Cokronegoro*

The question is, which is the correct *pathet*, *sepuluh* or *sanga*? Before answering that question, it is essential first to know about the tone functions in each *pathet* and their position in the existing *gending* structure. To what extent do these tones play a role in shaping the character and feeling of the *pathet*? Each *pathet* in the *Jawatimuran karawitan* has tones that are considered “biased tones,” which in this context will hereafter be referred to as “*nada sirikan*” or the tones to avoid.

The *Nada Sirikan* (The Avoided Tones)

The existence of the main and dominant tones presumes that there are some tones considered insignificant, and in this context these tones are referred to as *nada sirikan* (taboo, in Sutton [30] called “avoided tones”). The explanation and analysis of the *nada sirikan* are essential and directly connected to the sense of the *pathet* in the *Jawatimuran gendings*. The *nada sirikan* are tones of “refraction,” or tones that can weaken the sense and the character of the *pathet*. For example, in the *pathet wolu*, the more *nada sirikan* (avoided tones) there are, the *pathet wolu* taste becomes weaker or more biased. Vice versa, the less *nada sirikan* are present, the character and the sense of the *pathet* associated with it will be

firmer and clearer. To find out the positions of the *nada sirikan* in a *pathet* is relatively easy – by determining its place under the main tone of a *pathet*. For more details, see the following figure.

Knowing the position of the avoided tones, it will be possible to determine the character and sense of the *pathet* of a *gending*. The issue of the confusion over the

Name of <i>Pathet</i>	Main Tone	Dominant Tone	Avoided Tone
<i>Wolu</i>	5	1	3
<i>Sanga</i>	6	2	5
<i>Serang</i>	3	6	2
<i>Sepuluh?</i>	2	5	1

Figure 11. The position of the *nada sirikan* (Avoided Tones)

pathet in the *Gending Cokronegoro* above can be answered. When seen in the figure above, the researcher endows the “question mark (?)” sign to the *pathet sepuluh*. The sign refers to the previously held assumption that the *pathet sepuluh* is able to reach all the tones in its function as the main tone (tonic). However, the information about avoided tones presented above is essential for analyzing whether or not the tone position is strong in a *pathet*. If the *pathet sepuluh* can reach all tone areas as the main or final tone (gong), does this mean that each *gending* can be called or categorized as the *pathet sepuluh*? The answer is no. This is where the importance of analyzing the position of avoided tones can be sensed. A *gending* cannot be immediately classified in a *pathet sepuluh* as far as the *main tones* (which occupy the heavy beat position, which is called in Javanese *ulihan* or *seleh berat*) remain inclined towards a specific *pathet* character: the *wolu*, *sanga*, and *serang*. Conversely, a *gending* (on *pathet wolu*, *sanga*, and *serang*) that has too many avoided tones indicates that it is a *pathet sepuluh*. To find out the *pathet* category in the *Gending Cokronegoro*, it can be analyzed as follows.



First, we must understand the concepts of the *padhang* and the *ulihan* in the *gending*. The *padhang* (abbreviated as p) is a motion of the melody that is considered to be incomplete, and it can also be referred to as a *seleh ringan*, or a question sentence. The *ulihan* (abbreviated as u) is the motion of the melody which completes it (in Javanese: *seleh berat*, or answer). Musical analysis of the *gending* is done by dividing the structure of the musical composition into melodic sentences, in reference to the opinion of Hastanto [10] about phrases or *gatra*. A melody always consists of several sentences (kenongan), and each sentence consists of several phrases. The phrases or *gatra* are the smallest units of melodic sentences. The case of the *Gending Cokronegoro* can be described as follows.

Molody sentences				Melody Sentences											
Prhases		Prhases		Prhases		Prhases									
1	6	3	2	6	5	3	2	3	2	6	5	2	1	2	6
Gatra		Gatra		Gatra		Gatra		Gatra		Gatra		Gatra			
Kenongan				Kenongan											

Figure 12. Analysis of melody sentences on *Gending Cokronegoro*

In the next step, after the melody sentence is known, then the classification is carried out according to the *padhang* and the *ulihan* (or question and answer sentence) as follows.

Tone	.1.6	.3.2	.6.5	.3.2	.3.2	.6.5	.2.1	.2.6
First layer	p	U	p	u	p	u	p	u
Second layer	P		u		p		u	

Figure 13. Analysis of *padhang* (p) and *ulihan* (u) on *Gending Cokronegoro*

In the analysis presented above the *padhang* and the *ulihan* are divided into two layers. The first layer demonstrates the elaboration of the *padhang* and the

ulihan in half of the melody's sentence or the two *gatra*. In contrast, the second layer manifests the elaboration of the *padhang* and the *ulihan* in one melodic sentence. Based on the figure above, it can be seen that the final tone positions filling the first layer, namely, the *padhang*, pertain to the tones 6,5,2,1, and the first layer, the *ulihan*, pertains to the tones 2,2,5,6. While the second layer, the *padhang* represents tones 2 and 5, the second layer, *ulihan* represents tones 2 and 6. Based on this analysis, the *Gending Cokronegoro* is included in the *pathet sanga*, emphasizing heavy tones (*ulihan*) 6 and 2 (see the explanation about the previously mentioned *pathet sanga*). Based on this analysis, the *Gending Cokronegoro* is included in the *pathet sanga* because on the *ulihan* side, the majority of the tones are 2 and 6. These tones occupy the position as the main tone (*seleh berat*) and the dominant tone. It is included in the *pathet sanga* category (see the explanation of the previous *pathet* analysis).

CONCLUSION

The concept of *pathet* in *Javanese karawitan* is different from the two other common styles, the Surakarta and Yogyakarta. This proves that every musical culture possesses its own unique character and style. The *Jawatimuran karawitan* can still be seen as a "subordinate style of music," because it does not possess a strong cultural referential base, such as the royal palaces in Surakarta and Yogyakarta. However, as the result of the musical analysis of *Jawatimuran karawitan*, new concepts have been brought to light, one of which relates to *pathet* and *nada sirikan* (the

avoided tones). This discovery is important as an initial effort to foster a critical study of the phenomenon of traditional music in every region of Indonesia, especially Java. The concept of the *pathet* and the avoided tones in *Jawatimuran karawitan* is an early indication that the study of musical culture continues to expand and develop and is not in the least static.

Every region in Java possesses a musical style which should continue to be explored and developed. Indirectly, this study also seeks to provide another alternative in reading and perceiving the phenomenon of music by turning to the perspective of an insider, considering that an immense

amount of *karawitan* studies in various regions of Indonesia makes use of only one perspective, that pertaining to the Surakarta or the Yogyakarta musical tradition. The study of *pathet* and avoided tones can be used as a starting point to build a scholarly foundation for *Jawatimuran karawitan* and an alternative means of perceiving the musical culture of *Javanese karawitan* (which is not limited to Surakarta and Yogyakarta). Analysis of the *pathets* and the *nada sirikan* still leaves us with a number of unresolved problems. For this reason, it is necessary to undertake other studies of a similar kind to develop the Javanese musical discourse more diversely and dynamically.

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