Conference Paper

Ombak Gong (A Study on the Aesthetic of Javenaese Gamelan Gong Accoustic in the Digital Music Era)

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Abstract
The art of gamelan in Javanese culture contains aesthetical, ethical, and historical elements. The aesthetical element or the beauty of gamelan art reflects the common artistic principle *dulce et utile* which means entertaining and valuable. The creative activities of each artist is distinct. In other words, artists are able to create new modes in an artistic expression. Art does not only enrich psychological well-being but also serves as a media to communicate culture to the society. Gilbert Chesterton stated that the development of science and arts is inseparable. Whereas science studies the generic aspect of a physical form of something, arts deal with a more private matter that is the unique and solitary human. The ombak gong tuning system has become the unique characteristic of the accoustic tuning system of the gong instrument in Javanese gamelan in the current digital music era.

Keywords: ombak gong, aesthetic of accoustic, digital music

1. Introduction

In their social life, Javanese society values ethics or morality. The word morality here equals to manner, unggah-ungguh, character, wulangan, wejangan, wedharan, politeness, pernatan, and duga prayoga. Throughout their lives, humans do not only require basic primary needs such as food, clothing, and place to live, but also various cultural needs as the consequence of an artificial environment that they built. People also spare some of their time to fulfill other complex needs like going for recreation and satify their desire on aesthetics. Beauty or aesthetics plays a significant role in human’s life. Aristotles once mentioned that human is animal rational, while Ernst Cassirer argued that human is animal symbolicum. Human is a creature who appreciate beauty, that’s wahy human is also regarded as animal aestheticus. It is the nature of human to always want to beautify themselves or the environment around them. The form of beauty they seek for is also vary, it can be in the form of fine arts, literature, sound arts, dance, or the combination of several type of arts such as puppet arts and theatre.
Arts is the media for human to express themselves to the environment, either individually or collectively in order to maintain the physical and psychological balance. Through arts, human find the channel to express the experience or ideas to enrich their psychological well-being. Arts develop continuously from time to time along with the creativity of the artist. Artists, as the part of the society, always be influenced by the tradition that emerge and develop in the place where they live in.

The creative activities of artist is kind of distinct, it is a pattern that is originated as the alternative from something concrete. In order words, artists are able to create a new modus in an artistic expression. In the process of developing the aesthetic value, it does not only act as the aesthetic expression to enrich their psychological well-being but also as the media to communicate culture to the society. Gilbert Chesterton stated that the development of science and arts is inseparable. When science studies the generic aspect of a physical form of something, arts deal with a more private matter that is the unique and solitary human (Dubos, 1968).

Apparently, the aesthetic of music has been developed since the era of Plato (427-347 SM) that has implemented aesthetic aspect in music art, followed by Aristotle (384-322 SM) and Aristoxenos (350-300 SM) (Prier, 1991: 39). Music aesthetic is still developing up to now along with the creativity of the supportive community (the artists) in creating new ideas to establish a new form of aesthetics. One of the accoustic aesthetic is the tuning system of Javanese gamelan by the gamelan craftsmen that is known by the term of ombak gong.

Many things determine the accoustice aesthetic of "tuning system" in Javanese gamelan, those are dhong (fundamental tone), sruti (interval), gembyang (oktave), ombak gong (vibration), and resonator or bumbungan (Susila, 1999: 61). One of the tuning system that will the object of discussion in this article is the system of ombak gong that has become the uniqueness and the special characteristic of the accoustic tuning system of the gong instrument in Javanese gamelan. This what makes Javanese gamelan distinct from other types of gamelan in Indonesia. A uniqueness is an identity, a set of basic features of something. Hal ini menjadi pembeda dengan gamelan lainnya di nusantara. As auniqueness, it serves as the identity or basic characteristic of a group. In other words, an activity or element that make them different from other group. In an extreme stance, it can be said that “identity” refers to the local form of arts expression.

Tuning system, material construction, and buffer (rancakan) in gamelan are the center of attention among the community (read: Javanese karawitan artists community), particularly in regards to the aesthetic aspect. It can be seen from the historical backgound of buffer (rancakan) shape development from the simplest form to a more complex
one: colorized and carved. This phenomenon proved that there are high appreciation and attention given by the community. So does the appreciation on tuning system or laras of gamelan. Along with the competitive pride among the society in arts, especially the arts community in Java, they spontaneously compete to seek for the best laras or tuning system to later become the identity of their group. A good laras or tuning system, according to the community, surely is inseparable from the several factors mentioned above, one of them is ombak gong system. Gong is a set of gamelan instrument that has a shape like pencon with the biggest gong has the lowest tone as the marking in gending song. The tones are 6 (nem), 5 (lima) and 3 (telu/dhadha)(Sutandyo, 2002: 50). As the marking in song, gending gong has a significant role in karawitan. It may bring out various kinds of impression. gending gong memiliki peranan yang sangat penting dalam karawitan. Kesan yang hadir sangat bermacam-macam. Gong beat right at the last note of the song, a little before or after the last not will different impression and meaning.

Ombak gong occur because of the difference of frequency between the gong tone in the gamelan set that it result to a sound wave which is similar to the wave of water. (Sutandyo., 2002:102). The term of ombak gong refers to the echo of gong note that vibrates like water wave. In other words, there is a vibration of sound, either twice, five times, and so on. Besides, other than the acoustic of instrument, the term of ombak gong also refers to the context of performance, especially in regards to the intensity or the loudness of the song played (dynamic).

There are many aspects that can be referred to in analyzing the correlation between the system of ombak gong and accoustics. Oftentimes, we also have to take some other aspects into account, such as: type of gamelan instrument, personal aesthetic (freedom of expression), and the anthology. Those aspects are the elements that build the system. As we know that the elements of ombak gong plays important role in regards to its relationship with the accoustice system of Javanese gamelan, in terms of the aesthetic and philosophy aspect. The analysis on this system can rarely be found on any writings or research. Through this article, the writer intended to analyze the system of ombak gong in Javanese karawitan based on the aesthetic of accoustic point of view.

2. Discussion

In Javanese karawitan, there are two types of laras, laras pelog and laras slendro. Both of the model exist in several instruments or equipment in Java, such as gamelan ageng, Monggang, Kodhok Ngorek, Cara Balen and Sekaten. Almost every instrument
or ensemble above has ombak gong system, either in the context of tuning system or composition. The use of ombak gong system can be identified from the sound of gong and the slab of several note that is strengthen by a resonator that commonly used in Java called bumbungan.

The system of ombak gong can only be found in Javanese karawitan. This concept is not only referred to the acoustic aspect, but also the aesthetic and philosophy. According to Palgunadi, there are three terms that is frequently be used to identify the difference of frequency in ombak gong, those are: ombak gong lugu, ombak gong sundari and ombak gong laras ati (Palgunadi, 2002: 452)

Ombak gong lugu means direct. The sound of gong is tuned exactly the same without any shift of note whatsoever. Consequently, there is no ombak gong resulted (pleng). Since there is no wave of sound created, when it is used in a composition of karawitan, it will sound flat and the echo will be soon inaudible. Eversince the frequency of sound wave does not occur, the impression of the depth of the sound is failed to deliver. Such model is not fancied by the fans of Javanese karawitan since it create dull impression. While ombak gong sundari is a tuning system which tune the gong higher than other note so that the frequency is higher too. The significant deviation of frequency will make as if the sound of gong flows quickly as waves catching in a high speed. The impression that occur in this tuning system is deep sound in narrow room, lively, sumringah, dynamic, and crowded. Such tuning system might help a puppeteer in performing cengkok sound (kombangan). Ombak gong larasati is the tone of of gong instrument that is tuned slightly lower than other instuments. As the result, there is a small deviation on the frequency. Small frequency deviation would create slow flow of sound. The impression that will be created is a big wide, calm, and grand room.

This is where the difference between gamelan music and western music lies. In western music, since they apply standard measurement in tuning system, it is similar to ombak gong lugu (zero beat). It requires additional system or other sound processing equipment to create spatial depth impression. Sound processing equipment that is commonly used for this matter are reverberation processor, echo processor, and tremolo processor.

The three terms of ombak gong mentioned above are, basically, the terms described by gamelan craftsmen or gamelan tuner in determining the qualification or level of sound wave models. Note that sound wave will only occur if there are two similar tine with a little difference or a few cent difference. For ombak gong sundari, the difference range is about 40-60 cent, while ombak gong larasati only about 15-39 cent. If the
difference is too far, it is considered as off tuned. In conclusion, tone wave occur when there is a deviation on frequency between the tone of gong and other instruments.

In the following, the writer intended to visualized the several terms of ombak gong presented above based on the imagination or the audio visualization resulted by gong instrument.

a. Ombak gong lugu:

b. Ombak gong sundari:

c. Ombak gong laras ati:

3. The Aesthetics of Ombak Gong

To be able to position the traditional music of a certain region in the measurement of the needed aesthetics scoring, it is considered to be necessary to have the pre-requisite
knowledge regarding the musical instruments used in the region. The knowledge about the musical instruments is really necessary to have the approach to the musical style that is played and then beginning from that position, we can study the aesthetical content of it. The aesthetic study, especially the acoustic musical aesthetic (gamelan) require the approach that is different whether definitively as well as theoretically. If the definition of beauty tells people to know beauty really means, then the theory of beauty explains what is the reason and how beauty works.

One of the main theoretical issues about beauty is about the basic character from the beauty: is the beauty is something that present in the beautiful object or only present in the mind of people who observe the object? By observing the theoretical aspect about the beauty, then the basic issue to dissect the aesthetic aspect from the acoustic of “ombak gong” of Java gamelan is present on the objectivity and the subjectivity. That is because it refers to the system of reality identity of ombak gong that is a characteristic of Javanese gamelan that distinguish it from other gamelan or music that present in the entire Nusantara. This means that there is a specification of aesthetic interpretation because it deals with the local wisdom that require the comparative analysis with the other music. The question that becomes the base is: does gamelan which has no ombak gong system does not have any aesthetic value? If we think about the question, it will strengthen the specification towards the aesthetical interpretation. However, the specific character in beauty if analyzed carefully and correctly will be universal.

Through the consideration of objectivity and subjectivity, then dissecting will be attempted using the approach of theories of objective and subjective. Objectivity mentioned is the beauty or the characteristics which create the aesthetic value because the character is indeed attached on the concerned object despite of the who is the person observing, meanwhile subjectivity is the response of feeling inside someone’s mind who observes the object (Gie, 1997:50).

3.1. The Objective Aesthetic of Ombak Gong System

The objective approach is the aesthetic approach that is related to the physical and the non-physical aspect. The physical aspect is related to the instrument or object that produce or bring the impression of beauty, which in this case is the beauty of audio or sound. Meanwhile non-physical aspect related to how the voice produced by the instruments. The objective approach from both aspects is especially focused on the ombak gong system. This acoustic aesthetic located on the gamelan instruments of leras slendro and pelog.
3.2. The Subjective Aesthetic of Ombak Gong System

The subjective aesthetics approach is the approach that is aimed on the people who observe the beauty whether the viewer as well as the actor. In the observation of the writer, the actor in this case is the creator of gamelan or the tuner of gong that is the one having the important role in determining the soundwave that will be used on the gong instrument. There is a condition that supports it despite of the objective factors mentioned above that is freedom of expression. For a Javanese gamelan craftsmen or the tuner of gong, the absence of standard in determining the model of tuning allows them the freedom to determine the model of sound wave that surely present the individual expression.

Other than subjectivity from the actor, subjectivity that refers to the viewers or connoisseurs also affect the choice of sound wave model. In the process of assembling the whole gamelan instrument, oftentimes, the gamelan craftsmen should comply to the customer's request in determining the model of gong soundwave in order to demonstrate the identity of their gamelan (the customer).

The identity through tuning system here may serve as the unique character that differentiate them from other gamelan. Even so, so far, many types of sound wave model has not been able to fully provide a musical identity that differ one community to another or a type of gamelan equipment to other gamelan types.

In the observation on the aesthetic of Javanese gamelan acoustic, especially on the system of ombak gong, the subjective and objective aspect are inseparable. Both are exist and depend on each other that cannot stand by itself (alienation). The beauty of “aesthetic” lays on the relationship between an object and the mind of someone observing it.

The aesthetic analysis of ombak gong system is influenced by several factors below:
1. Type of gamelan and the tuning system.
2. Dominance function of the instrument
3. The taste of the tuner (appetite)
4. The taste of the consumer (judges)

Other than the four factors above, another important and significant supporting factor is buffer resonator (the accuracy and sound and resonator). The effectiveness of sound wave model, or whether the acoustic effect result is strong and clear, is determined by resonator. No matter how good the sound wave model used, without being supported
by resonator, it will be useless. As the result, the beauty in the sound wave model cannot be observed well.

3.3. Ombak Gong in the Context of Performance

As it has been discussed above, the term ombak gong does not only refer to the model or type of sound wave of the gong, but this term is also used in regards to the composition performance. The word ombak gong also describe the high or low volume of song or gending. In the aspect of aesthetic, ombak gong is meant to be as balancing aspect.

If it is connected to the show aspect, then the balancing concept on ombak gong is contributed through the feeling and emotion (Padarusa). The hard and fast performance, which sometimes also low and slow performance in beating the gamelan as the “collective activity” requires the synchronization between the personal which each one and another in term of feeling and emotion that is coordinated accurately. If that has already done, then the creation of a condition of the performance which is in-sync and dynamic as a unity is successful.

4. Conclusion

The ombak gong system is a uniqueness in its own that is one characteristics of Javanese gamelan that distinguish it with the gamelan or other traditional music in the entire Indonesia. With that, this can be said as an identity because it is a series of basic characteristics that is unique that distinguish it with a certain group of people.

Ombak gong is an expression of appreciation of people of Javanese gamelan. The existence is not only referring to the acoustic but also referring to the aesthetic, and philosophy. Three terms that is frequently used to determine the difference of frequency of ombak gong, those are: ombang gong lugu, ombak gong sundari and ombak gong larasati. The term of ombak gong is also used on the aspect of performance. That is to refer the hard gong beating and to mention the low gong beating. In the frame of aesthetic related to the performance, ombak gong system also have the role that is very significant.

References

[1] Cole, B. (1993). Music and Morals. New York: Knoff Publishing.
[2] Docile, L. L. (1972). *Environmental Acoustics*. New York: McGraw-Hill Book Company.
[3] Ferdinandus, E. J. P. (2003). *Alat Musik Jawa Kuno*, Yogyakarta: Mahardhika.
[4] Gie, T. L. (1996). *Filsafat Keindahan*. Yogyakarta: PBIB.
[5] (1996). *Filsafat Seni: Sebuah Pengantar*. Yogyakarta: PBIB.
[6] Hardjana, S. (1983). *Estetika Musik*. Jakarta
[7] Johan, E. A. S. (2003). *Psikologi Musik*. Yogyakarta: Buku Baik.
[8] Kunst, J. (1973). *Music in Java: It’s History, Its Theory, and Its Technique*. The Hague: Martinus Nijhoff.
[9] Kuntowijoyo (2006). *Budaya dan Masyarakat*. Yogyakarta: Tiara Wacana Yogya.
[10] Langer, S. K. (1988). *Problematika Seni*. Terj: FX Widaryanto, ASTI Bandung.
[11] Lindsay, J. (1979). *Javanese Gamelan*. Kuala Lumpur: Oxford University Press, Kuala Lumpur.
[12] Meriam, A. P. (1964). *The Anthropology of Music*, terjemahan Triyono Bramantyo. Bloomington: North Western University Press.
[13] Nettl, B. (1992). *The Excursion in World Music*. New Jersey: Simon and Schuster.
[14] Palgunadi, B. (2002). *Serat Kandha Karawitan Jawi*. Bandung: Penerbit ITB.
[15] Poerwadarminta, (1937). *Baoesastra Djawa*. J. B. Wolters Uitgevers: Maatschappij N. V. Groningen, Batavia
[16] Promm, E. (2002). *The Art of Loving*. Jakarta: Fresh Book.
[17] Rene, D. (1968). *So Human an Animal*. New York: Sahribners Sous.
[18] Sachari, A. (2002). *Estetika Makna, Simbol dan Daya*. Bandung: ITB.
[19] Sartono, K. (1982). *Pemikiran Dan Perkembangan Historigrafi Indonesia*. Jakarta: Gramedia.
[20] Sumarjan, S. (1981). *Budaya Dan Masyarakat Jawa*. Yogyakarta: Murni Offset.
[21] Sumarjo, J. (2000). *Filsafat Seni*. Bandung: ITB.
[22] Sumarsam, (1995). *Gamelan: Cultural Interaction and Musical Development in Central Java*. Chicago: The University of Chicago Press.
[23] (2002). *Hayatan Gamelan*. Surakarta: STSI Press Surakarta
[24] Susilo, H. (1999). *Kesinambungan Dan Perubahan Dalam Seni Karawitan Jawa Tengah, dalam Jurnal Seni Pengetahuan Dan Penciptaan Seni*. Yogyakarta: BP ISI Yogyakarta, vol. 4, p. 2.
[25] Sutandyo, (2002). *Kamus Istimah Karawitan*. Jakarta: Wedatama Widya Sastra.
[26] Sutrisno, M. (1993). *Estetika Filsafat Keindahan*. Kanisius: Yogyakarta.
[27] Sutrisno, (1979). *Sejarah Karawitan*. Surakarta: ASKI.
[28] Vetter, R. (2001). More Than Meets The Eye and Ear: Gamelan and Their Meaning in A Central Javanese Palace. *Journal of the Society for Asian Music*, vol. 32, issue, 2.

[29] Waesberghe, S. V. (1976). *Aesthetika Musik*. Yogyakarta: AMI.

[30] Wiranto, (1997). *Estetika Musikal*. Yogyakarta: ISI.

[31] Zoetmulder, P. J. (1988). *Kalangwan, translated by Dick Hartoko*. Jakarta: Jambatan.