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Listening for the *Suling* in the Balinese Gamelan

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Deeply rooted in religion and tradition, Balinese music is a unique art form that contains rich musical variety. Popular in Bali, Indonesia, because of its key role in religious ceremonies and tourism, gamelan music developed into one of the most prominent art forms on the island. While an abundance of research exists concerning many aspects of music in Bali, notably on musical genres, types of instruments and their use, and performance settings, little research has been done concerning the *suling*, the Balinese flute, and its role in Balinese music. Due to an exceptional lack of information in the subject area, this important member of many Balinese gamelan ensembles is often left unnoticed in research. I identify the *suling*'s importance as coming from three particular musical functions: 1) its contrasting tone color to the more dominant metallophones within the ensemble, 2) its soloistic role within the texture of the ensemble, 3) and its extended pitch range; through these functions, the *suling* proves to be an irreplaceable member of Balinese music that requires further study.

A brief discussion of the history, uses, and key characteristics of Balinese gamelan is essential to better understand the significance of the *suling* within these ensembles. Specifically, I will discuss the *suling*'s importance within the *gamelan gambuh* and *semar pegulingan*, and provide musical examples along with excerpts from my transcriptions. Further I will suggest how the role of the *suling*, in negotiating both solo and group dynamics within the musical ensemble, also emblemizes the social role that individual community members play within Balinese society.

“Gamelan” refers to the instruments themselves, but it can also refer to the entire orchestra. This music boasts complex rhythms and intriguing patterns, resulting in a detailed and ornate art form. Additionally, bronze gongs and metallophones are the center of attention in most

songs, giving this music a rather characteristic metallic sound. While Balinese music is essential to religious ceremonies, it also finds popularity in secular events and festivals throughout the year. An example of this is the annual island-wide competition where village gamelans compete for a prize. These festivals are treated similarly to sporting events in America, brimming with energy, excitement, and competition. According to ethnomusicologist and composer Colin McPhee, this music is primarily a popular art form today, with the main goal “of providing festive music and entertainment for all occasions.”¹

Within the gamelan, the *suling* is a unique bamboo aerophone with five or six finger holes that are bored along the length of the tube.² Additionally, *suling* are end blown from one side of the tube and can come in all sizes, ranging from the lowest *suling gambuh* to the highest *suling kantikan*. According to ethnomusicologist Benjamin Brinner, there is little formal instruction offered on the *suling*, and most players teach themselves. Performance of this instrument is also considered a specialty, as “many competent musicians who can play most other gamelan instruments do not play *suling*.”³

There are more than two dozen types of gamelan in Bali, with each ensemble having its own instrumentation, purpose, and performance setting. Though rarely written down, numerous pieces for gamelan have been composed over the years. Instead of reading music, the musicians learn the pieces by ear and memorize them. There is no standard notational system in Balinese gamelan music, so musicians must rely on memorization and familiar musical sequences.

¹ McPhee, *Music in Bali*, 5.

² Tenzer, *Gamelan Music: Gamelan Gong Kebyar*, 50.

³ Brinner, “Freedom and Formulaity in the “Suling” Playing of Bapak Tarnopangrawit,” 2.

Because of this style of learning, there can be much diversity between each ensemble's interpretation of the same piece.

In addition to a good ear and robust memory, it also requires much dedication and commitment to be a Balinese gamelan musician. All ensembles are organized into a formally established group, called a *sekaha*. There is a *sekaha* for every aspect of life in Bali, such as harvesting, bicycle repair, and even kite flying. As ethnomusicologist Michael Tenzer explains, the *sekaha* system keeps each village running smoothly by outlining "each individuals role... and shaping the varied personalities in the community into a single, complex, functioning whole."⁴ If a citizen wants to join the gamelan *sekaha* and perform in the village ensemble, he or she must undergo an extensive process before being selected. There is much competition to be a member of this *sekaha*, so the musicians must always do their best in rehearsals to ensure they are not replaced by another hopeful villager. There can be as many as 75 members of a gamelan *sekaha*, but less than half of these will actually play the instruments. Other jobs include understudies, administrators, instrument repairmen, treasurers, and costume designers. Membership in a village's gamelan *sekaha* is strictly voluntary, however, and the members do not receive payment for their participation. Any money the gamelan may receive from performances goes towards instrument repair, costumes, and other group expenses.⁵

Local children are always welcomed to observe the gamelan's rehearsals, and many children soon become passionate about this music. Parents typically do not make their children practice the music, rather the children are self-motivated and often self-taught. Additionally,

⁴ Tenzer, *Balinese Gamelan Music*, 116.

⁵ All information in this paragraph retrieved from Tenzer, *Balinese Gamelan Music*, 116-117.

women were not historically allowed to participate in gamelans, but this began to change in the 1980s when international gamelan competitions included the first all-female *gong kebyar sekaha*.

⁶ This opened the door to many more performance opportunities for female musicians in Bali, allowing them more freedom to participate in local gamelan *sekahas*.

The Balinese gamelan contains many different types of instruments, each with its own purpose. The *gangsa* is a family of bronze-keyed metallophones with keys hanging over bamboo resonators, classified by their register and number of pitches or keys. These are played with hard wooden mallets and can have seven to twelve keys which rest on a low wooden base. The *gangsa* play fast, elaborate parts which enrich the melodic line. Other instruments in the ensemble are gongs, drums, melodic instruments, and accompaniment instruments. The melodic instruments, such as the *suling*, are used to add color on the top of the ensemble while the accompaniment instruments add a filling texture, among other functions.⁷

The tuning of instruments can vary from gamelan to gamelan, resulting in tonal variety among separate ensembles. Because of this, instruments from different gamelans are not interchangeable, and each ensemble creates its own unique sound. Though tuning is not consistent across ensembles, intonation within each Balinese gamelan is based on paired tuning, in which pairs of similar instruments are tuned slightly apart from each other. Most instrument pairs are tuned between five to eight cents apart. The higher pitched instrument is referred to as the *pengisep*, or inhaler, and the lower pitched instrument is known as the *pengumbang*, or exhaler. Ethnomusicologist Lisa Gold explains these differences in intonation as creating a

⁶ Tenzer, *Balinese Gamelan Music*, 137.

⁷ Tenzer, *Balinese Gamelan Music*, 45-46.

“pulsating effect, metaphorically breathing and thus bringing the sound of the gamelan to life.”

These pulsations are often referred to as *ombak*, or waves. These waves are a key feature of Balinese music, bringing life to the sound of the metallophones, gongs, and *suling*.

Though the *suling* is found in many different types of gamelans, the *suling gambuh* is unique to the *gamelan gambuh*. *Gamelan gambuh* accompanies an ancient style of dance-drama which is recognized as the original source of almost all other dance-drama genres in Bali.⁸ The plot of all *gambuh* performances is based on indigenous legends and epics in Bali and Java. The *gamelan gambuh* consists of fewer musicians and smaller instruments than the previously mentioned and highly popular *gamelan gong kebyar*. Designed to accompany a dance-drama, *gamelan gambuh* musicians typically sit on a bamboo mat on the side of the stage during performances. The drums lead the orchestra while the gongs signal the ending of large sections. The *suling gambuh* and bowed *rebab* play the main melodies of the *gambuh*.⁹ The *suling gambuh* is generally thirty-five inches long with six finger holes. Because of its large size, the instrument is typically played sitting cross-legged with the open end resting on the ground. It has a range of a little over two octaves, with its lowest note beginning near the F below middle C.¹⁰

The *suling gambuh* adds much tonal, textural, and rhythmic variety to *gamelan gambuh* compositions by using techniques that are not found on other instruments. Tenzer explains how the *suling gambuh* proves to be one of the most important instruments in the *gamelan gambuh* repertoire because of its ability to “spin airy, haunting melodies in a kind of fuzzy coordination

⁸ Ariyanto, “Gambuh,” 221.

⁹ Ariyanto, “Gambuh,” 225.

¹⁰ McPhee, *Music in Bali*, 114.

that have a distinctive, ghostly sound.”¹¹ My studies of a particular *gamelan gambuh* work reveal the *suling*'s ability to sustain long notes over moving lines.

This example of *gamelan gambuh* comes from a group in Batuan, Bali.¹² Though these sustained notes are not nearly as fast moving as the rhythms underneath, they add a timbral sparkle that carries above the ensemble. These lengthy notes are typically played with circular breathing, a skill specific to the *suling*. Tenzer explains that this is “a difficult technique whereby the flutist exhales air stored in the cheeks while inhaling through the nose.”¹³ Gold further explains that circular breathing “often produces a wide vibrato and a constant, strong tone.”¹⁴ Eliminating any breaks in the tone, circular breathing allows the *suling* to be a master of sustaining long pitches above the ensemble. Though gongs and other metallic instruments are capable of playing long notes, their sound will eventually begin to fade, requiring the note to be struck again. *Suling*, in contrast, can sustain a pitch at the same volume for an indefinite period of time without having to rearticulate. This is an important characteristic which allows its tone color, timbre, and “ghostly sound”¹⁵ to permeate through the ensemble.

I also transcribed a piece for *gamelan semar pegulingan* which demonstrates the *suling*'s ability to double an existing melody and ornament a melodic line by adding extended pitches. The *gamelan semar pegulingan* is a small ensemble with a sweet, mellow timbre. This gamelan's original purpose was to play music in the courts, but there are many *semar pegulingan* ensembles

¹¹ Tenzer, *Balinese Gamelan Music*, 24.

¹² Sudewa1. *Tabuh Petegak Gambuh Sanggar Satriya Lelana Batuan '2* [Video File].

¹³ Tenzer, *Balinese Gamelan Music*, 46.

¹⁴ Gold, *Music in Bali*, 48.

¹⁵ Tenzer, *Balinese Gamelan Music*, 24.

today that perform for all occasions. This is the type of ensemble we have at the University of Tennessee, which has given me the opportunity to experience it live. I have transcribed a piece for *semar pegulingan* to better understand how the *suling* functions within the ensemble. The recording I use comes from Robert Brown's CD *Gamelan Semar Pegulingan*. This track is titled "Tabuh Pisan," a name which reflects the rhythmic structure of the piece.¹⁶

Because there is no standard notational system in Bali, I use typical western pitches to indicate the notes in my transcription. By taking exact pitches from gamelan recordings, McPhee was able to approximate standard gamelan modes to western pitches.¹⁷ Using these comparisons, McPhee has made numerous transcriptions using western notation. I have done the same here. This composition has five pitches, represented by F, G#, A, Bb, and C.

The *suling*'s primary purpose in this composition is to double the melodic line. This main melody is referred to as the *pokak*, literally translating to 'basis,' and it is the rhythm from which all the other melodies derive.¹⁸ The *pokak* is made up of many interlocking parts, referred to as *kotekan*. There are many different types of *kotekan*, categorized by the number of notes each instrument plays and the patterns in which the instruments trade off. When played together, the *kotekan* rhythms combine to reveal the *pokak*. However, the *suling* is unique from the metallophones and gongs because it does not follow the *kotekan* rhythms. Rather, the *suling* plays the entire *pokak* melody. The *suling* also sustains notes while the metallophones and gongs begin a new rhythmic sequence. This adds a structural element of coherence between phrases.

¹⁶ Brown, Robert, "Tabuh Pisan" [Audio File].

¹⁷ McPhee, *Music in Bali*, 114.

¹⁸ Gold, *Music in Bali*, 56.

The *pokak* is a key feature of Balinese gamelan works, and the *suling* unifies this melodic structure within the piece.

Some specific examples can be found in Figures 1.1 and 1.2. Here, the *suling* doubles both the rhythm and the pitches played by the *gansa* metallophones. Although the *suling* is doubling the rhythm and notes played by the metallophones, the *suling* also contributes an extra element to the piece by adding small ornaments to notes. These ornaments are similar to mordents in western music, where the musician quickly plays the notes above and below the pitch before settling on the intended note. This small waver in sound hints at the concept of *ombak*, or wave, in the ensemble, where instruments are paired together and the acoustic beats between their notes add life to the music. In the same way, these waves in the *suling*'s melodic line also add an extra element of life and energy to this piece. When listening for the *suling* in these recordings, you will hear a high-pitched, flute-like sound that is similar to a whistle. Note both the wavers in sound and the structural coherence the *suling* provides between phrases.

The *suling* adds another unique element to the gamelan because of its ability to ornament the melodic line with extended pitches. According to McPhee, the *suling* is often treated with “great freedom of intonation” because the pitches are interpreted on the instrument similar to the way a vocalist sings.¹⁹ Most instruments in the *semar pegulingan* can only play specific pitches, so these extended pitches are unique to the *suling*. Because the *suling* is an aerophone, performers are able to alter the speed of their air to create pitches that are sharper or flatter than the five notes of the scale. Performers can also decide to close only portions of the holes to create this same affect. McPhee explains that these half-open fingerhole effects can be used to create

¹⁹ McPhee, *Music in Bali*, 36.

new pitches and also to sweeten existing pitches.²⁰ Examples of extended pitches that ornament the melodic line in this composition are found in Figures 2.1 and 2.2. I have used natural and sharp signs here as a means of showing whether the pitch was sharper or flatter than the song's typical pitches.

These specific examples show key performance practices of the *suling* which make it an important member of the gamelan. There are many more instances of sustaining long notes, doubling the melody, and adding extended pitches within this piece and many other pieces. These compositional uses of the *suling* have solidified its place in Balinese music. By adding a colorful, soloistic sound on top of the ensemble, the *suling* greatly influences the texture in *gamelan* works. Though little research has been done on the *suling* in the past, my transcription helps explain why the *suling* is an essential member of the Balinese gamelan.

The *suling's* position as an irreplaceable member of Balinese gamelan music also serves as a metaphor to Balinese society. Gamelan performance is primarily focused on group cohesion and sound, but each instrument in the group has its own rhythmic responsibility and sound characteristics, as seen by my studies of the *suling*. In the same way, members of Balinese society work together in a community atmosphere while also standing out and contributing in their own individual ways. As mentioned earlier, Balinese communities are organized into *sekahas*, in which community members are given specific positions and responsibilities that contribute to the community as a whole. With this social organization, communities are able to function efficiently and thrive. When an individual member does their part, whether it is in a community *sekaha* or as the *suling* in a gamelan, the group benefits as a whole, and the end

²⁰ McPhee, *Music in Bali*, 117.

result is improved and more comprehensive than anything a member could have done by themselves.

Appendix of Musical Figures

Figure 1.1 *Measures 83-86:*



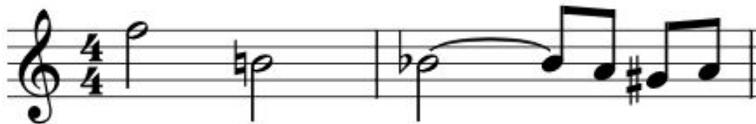
Figure 1.2 *Measures 164-168:*



Figure 2.1: *Measures 36-37, Extended Pitches: B♭, A#, F#*



Figure 2.2: *Measures 77-78, Extended Pitch: B♭*



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