

A Gamelan Palette: Examining the Integration of Indonesian Javanese Gamelan Elements in Debussy's Piano Work

Peihan Lin

Department of Music and Dance, Jiaying University, Meizhou, China

peihanlin91@163.com

Abstract. Debussy's "Pagodas" fosters an attractive musical dialogue within the rich traditions of Indonesian Gamelan. This exploration surpasses geographical boundaries, as Debussy integrates Gamelan's distinctive timbres and rhythmic intricacies into a Western piano repertoire. Through the juxtaposition of resonant tones and percussive elements, "Pagodas" becomes an intriguing cross-cultural encounter. It invites listeners to navigate an intricate weave of Javanese musical influence within Debussy's impressionistic language. This musical dialogue progresses organically while Debussy navigates East and West intersections. This creates a sonic tapestry that resonates with the mystique of Gamelan traditions and the haunting expression of Debussy's artistic vision. "Pagodas" is a testament to the transformative power of cross-cultural musical conversations. In this piece, Debussy's mastery transcends borders to shape a harmonious synthesis of diverse musical worlds.

Keywords: cross-cultural, Debussy, Pagodas, analysis, Gamelan, Eastern Colors

1. Introduction

Within the evolution of music, Western music composition demonstrates an inclination to draw on inspiration from the East. This inclination has given rise to a masterful composer, Claude Debussy, who possessed a unique perspective with exceptional auditory perception. Debussy is an impressionist musician of French origin (1862-1918). Debussy's innovative artistic vision and innovative musical principles sparked a revolutionary movement in French music during the early 20th century, which profoundly influenced the development of Western musical history.

Debussy's creativity stems from adopting Eastern musical characteristics, particularly Javanese gamelan. This resulted in a rich infusion of oriental, colorful mysticism in his compositions. This distinctive composition style is evident in several of his compositions, including *Suite pour le piano* "Prelude (1901)" and "L'Isle Joyeuse (1910)." Debussy's affinity for Eastern musical concepts influences is especially prominent in "Pagodas," a piece featured in his collection *Estampes*. "Pagodas" intricately integrates the rhythm and color of Eastern music and showcases Debussy's profound understanding and distinctive perspective on music. Debussy used the concepts of oriental music to introduce an innovative musical expression in his compositions. However, from a Western musical theory standpoint, questions arise: How did Debussy integrate characteristics of Eastern music into his compositions? How does incorporating folk music components in "Pagodas" harmonize with Debussy's distinctive style to form a unique musical idiom? This study examines how Debussy integrated parts of Gamelan music into his composition "Pagodas," using Gamelan music theory as the fundamental principle.

2. Debussy and His "Pagodas"

Claude Debussy (1862-1918), a French composer of the Impressionist movement, is widely recognized as one of the precursors of contemporary music. He endeavored to disrupt the structure of conventional Western harmonic tones by integrating unique scales, such as pentatonic and whole-tone scales, into his compositions. Debussy took part in the 1889 Exposition Universelle in Paris, where he observed a performance by a Javanese Gamelan ensemble showcasing their music and dance. Debussy was unfamiliar with Gamelan regarding visual exposure and auditory experience at the time. However, the unique timbres, melodies, and harmonies generated captivated him. Debussy began adopting Gamelan's intricate strata and attributes in his innovative composition methods at the onset of the 20th century. Gamelan music's unique timbres and tones profoundly impacted the colors and layers instigated by Debussy during this period. In 1903, Debussy completed three engravings of the *Estampes* collection:

“Pagodas” (depicting a temple), “La soirée dans Grenade” (representing an evening in Granada), and “Jardins sous la pluie” (depicting gardens in the rain). The initial movement, “Pagodas,” draws significant inspiration from Javanese Gamelan music pertaining to Hindu and Buddhist temples.

“Pagodas,” from the *Estampes* collection, is a significant piano composition by Debussy during his middle to late period (1893-1905). Debussy exhibited a dramatic shift in his musical approach during his career’s middle and final phases, demonstrating maturity and growth. He recognized that an art piece’s austere portrayal of personal emotions lacked artistic merit. Through integrating personal emotion into a landscape or item, artwork acquires a dual artistic quality akin to lyrical expression through scenery in Chinese aesthetics. Debussy aimed to elicit a musician’s internal emotions through admiring the natural world. As an illustration, we can consider the renowned suona composition from the homeland, entitled “A Hundred Birds Paying Homage to the Phoenix.” The composer, Ren Tongxiang, enhanced the lively nature of the work by gathering diverse avian sounds and modifying them on a pair of occasions. This was accomplished to convey a sense of one hundred birds singing together harmoniously. In this rendition, the composer profoundly appreciates nature’s exquisite allure within his homeland.

Debussy dedicated his entire life to music while seamlessly integrating it into every aspect of his existence. The compilation of prints was explicitly devoted to his artistic companion, artist Jacques-Émile Blanche, to capture the visual and emotional essence of the paintings via musical composition. The musical composition “Pagodas” has become widely recognized as a character of Debussy’s artistic creativity. This piece illustrates his distinctive musical style through its intricate design, vibrant melodic palette, and profound artistic implications. Furthermore, when examined from a diverse musical standpoint, “Pagodas” also demonstrates Debussy’s integration of Eastern music, demonstrating how these elements contributed to his musical style.

3. Debussy's Eastern Musical Integration

While not a musician of Gamelan instruments, Debussy vividly recalled the performance of Gamelan music during the Exposition Universelle in Paris (1889). The Javanese Gamelan ensemble predominantly comprised percussion instruments, such as gong clusters and metallophones. It also included other mellifluous instruments, such as the suling flute and the rebab, a stringed instrument played with a bow. Gamelan music is distinguished by a primary melody (balungan) that is either decelerated or accelerated. Employed for the main melody, a section of the metallophone is adorned to highlight the interlocking, overlapping patterns among the three voices that define Gamelan music.

Gamelan music is characterized by its use of scales. The most predominant scales employed are the pelog, a seven-note scale, and the slendro, a five-note scale, both belonging to the Gamelan scale system. It is imperative to grasp the precise meaning of equal temperament to understand better the disparity between these two scales and equal temperament. In his book “A History of Musical Pitch,” theorist Alexander John Ellis elucidates that the 12 comparable temperament systems are employed in a theoretical framework where each semitone is precisely 100 cents. One octave is equivalent to 1200 cents, with a frequency ratio of 2:1.¹ Interestingly, Gamelan instruments are primarily crafted by skilled artisans who rely on auditory senses. A complete set of Gamelan instruments is constructed using pelog and slendro scales. Consequently, it is unfeasible for different groups or makers to play Gamelan instruments together because there is a risk of significant variation in tonal frequencies. Consequently, a lot of musicians who have been trained in Western music are not familiar with the aural experience of the gamelan due to these changes. This is mostly because these musicians are accustomed to perfect pitches. Nevertheless, these distinctive attributes are unusual and provide fresh perspectives regarding Debussy’s musical pieces.

Debussy highlighted Gamelan's musical features in his composition, “Pagodas.” In his composition, he meticulously replicated the acoustic qualities of the Gamelan ensemble while analyzing and enhancing its unique musical aspects with the addition of harmonic, pedal, and terminological effects. Gamelan musical scholar Parker has characterized Debussy’s “Pagodas” as an imaginative construct that diverges from Gamelan’s original melody and falls short of being a comprehensive representation of nature. The piece was described as a work of imagination, featuring a skillfully executed performance of evocative oriental Gamelan on a Western piano.² Debussy innovatively fused Eastern and Western music, establishing a distinctive and original musical style as a trailblazer for Western musical compositions. Through this paragraph, it is clear to understand Parker's analysis of Debussy’s 'Pagodas' highlights the composer's imaginative approach to integrating Eastern influences into Western music. By characterizing the piece as a departure from traditional Gamelan melodies, Parker emphasizes Debussy's innovative fusion of Eastern and Western musical elements. This analysis underscores the significance of Debussy's work in establishing a unique musical style that bridges cultural boundaries, aligning with this research goal of exploring the impact of cross-cultural influences on Western music.

¹ Alexander J. Ellis, “The History of Musical Pitch,” *Journal of the Society of Arts* 21, no. 545 (M1880): 307. Accessed April 15, 2022, <https://doi.org/10.1038/021550a0>, 552.

² Sylvia Parker, *Claude Debussy’s Gamelan*, college music symposium – Exploring Diverse Perspectives 52, 2012.

4. Analyzing the Piano Work “Pagodas” Involving Gamelan Music Elements

The piano composition “Pagodas” can be analyzed to comprehend its musical form while elucidating the music’s overarching framework. This analysis examines how the various elements are arranged and interconnected within the musical structure, the treatment of timbre through pedal usage, the utilization of musical terminology to convey variations in dynamics and tempo, and its incorporation of motifs.

4.1. Musical Structure

“Pagodas” follows a composite recapitulation trilogy musical structure comprising three primary sections: The exposition section (measures 1-32), the development section (measures 33-52), and the recapitulation section (measures 53-98). The exposition and recapitulation sections integrate three individual motifs (ABA’). In contrast, the development section is a progression of these motifs based on previous sections. “Pagodas” exhibits thematic repetition and a colotomic meter, where the central melody persistently resurfaces, evolves, and enriches the music with diversity and complexity. This exemplifies Debussy’s pioneering conventional musical structures in tandem with advancing novel modes of musical articulation. Debussy showcased stereo harmonic theory in this composition. The harmonic theory involves an intricate and expressive construction of harmony, incorporating parallel harmony, harmonic scales in fourths/fifths, and dissonant intervals. This innovative expression sets his music apart from the traditional melodic harmony found in classical and pre-Romantic Western musical styles.

The score represents a distinct overlap of voices in visual observation. The composition commences with three voices in measures 1-2. It then increases to four voices in measures 3-6, followed by five in measures 7-10. The score returns to three voices for measures 11-14 and finally two voices for measures 15-18. This voice-layering technique is a distinctive element of Gamelan music, referred to as a layered structure. When multiple voices simultaneously perform the same melody, individual voices may diverge to generate variations in tone (e.g., embellishments, altered rhythms, or ornaments). Alternately, they may come together to form a unison sound. Known as heterophony, this phenomenon is typically inherent in Western music, which can range from simple melodic lines to intricate rhythmic patterning. Debussy incorporated the characteristic rhythmic structure of Gamelan music, compound rhythm, into his compositions. This entailed using ratios such as triplets against duplets, octuplets against duplets/triplets, and septuplets against duplets, as well as syncopation.

Moreover, Debussy employed the harmonic superimposition method by combining a core theme within an embellished melody. The examples in measures 7-8 illustrate music with five layers of voices. Debussy used various techniques to alternate voices within these layers. The first and third voices are dedicated to the theme and its development. The first voice progresses with a weak ascending beat and a connecting factor. The third voice features a melodic flow of smooth eighth notes that complements the first voice’s connecting factor. The second and fourth voices are stationary, exhibiting prolonged syncopation in the rhythmic structure. The fifth voice serves as a bass (gong) to produce deep, sustained tones that establish a cohesive flow across the composition. This work is enriched with a complex interplay of polyphonic lines that create harmonious and vibrant tonal blends.

The image shows a musical score for measures 7 and 8 of the piano work "Pagodas" by Claude Debussy. The score is written for piano and features five distinct voices. The top staff is the right hand, and the bottom staff is the left hand. The key signature is three sharps (F#, C#, G#), and the time signature is 3/4. The tempo is marked "a tempo" and the ending is marked "rit.". The score includes various rhythmic patterns, including eighth notes, quarter notes, and rests. The left hand features a prominent bass line with sustained notes, characteristic of the gong in Gamelan music. The right hand features a melodic line with eighth notes and quarter notes. The score is annotated with fingerings (1-5) and articulation marks (accents, slurs).

Figure 1. Laying in Five Voices (measures 7-8)³

4.2. The Use of Tonality

Debussy used the pentatonic scale (slendro), the whole-tone scale, and harmonic procedures to generate a novel musical encounter. The pentatonic scale, frequently employed in Eastern music, is felt throughout Debussy’s work “Pagodas.” Debussy creates the piece’s melody within a pentatonic scale framework while integrating Gamelan’s melodic structure. A mysterious oriental beauty and color were added to the work using the pentatonic scale, which has a more compact and natural tone than the Western seven-tone scale. Debussy’s compositional approach entailed more than just imitation. He creatively transformed the pentatonic scale into his musical language, skillfully integrating various Western musical characteristics, such as diverse rhythmic combinations, contrasts of intensity and subtlety, and alternating melodies, to produce a distinctive mode of expression.

³ Claude Debussy, *Estampes*, ed. Isidor Philipp (New York: International Music Company, 1959), 03.

The pentatonic scale (B-C#-D#-F#-G#) and the whole-tone scale (B-C#-D#-E#-F#-G#) produce transformations and harmonic variations that enable listeners to perceive distinctive qualities in oriental music, exhibited by melody, rhythm, and musical structure. Incorporating unconventional scales and harmonic structures imbues the music with a unique timbre and ambiance, resulting in an enigmatic, ethereal quality. Drawing on this oriental essence enhances the music's diversity and adds a broader range of expression. At the same time, these scales and harmonic variations integrate elements from Western classical music while imparting the song with structure and blurred harmonic quality. This music adeptly includes standard seven-note scales and popular chord progressions, which impart a sense of solidity and hierarchical structure. Western classical elements provide the music with a sense of organization and arrangement while also eliciting a sophisticated, graceful characteristic.

Figure 2. Pentatonic Scale (measure 1-6)⁴

Figure 3. Whole Tone Scale (measure 33-36)⁵

Debussy extensively investigated the use of harmony within Gamelan music. He defied conventional tonal harmony by bravely including parallel chords, fourths, and harmonic intervals in his compositions. Using parallel chords in a musical piece can generate a perception of cohesion and fluidity, which results in a smooth and organic composition. The fourth harmonic possesses an unsteady, unsettling quality. It is frequently employed to enhance modulation, transposition, and other techniques that heighten musical variations and feelings of hierarchy. Debussy's treatment of harmony is characterized by greater freedom and a more comprehensive range of variety. Debussy adeptly grasped the polyrhythmic attributes of Gamelan music. He incorporated variations in strength, weakness, repetition, and temporal shifts to create dynamic rhythmic changes, which he effectively employed in his work. By skillfully crafting intricate and diverse rhythms, Debussy created a musical ambiance simultaneously enigmatic and grand, harmoniously complemented by pentatonic scales. These elements collectively produce the distinctive musical expression found in "Pagodas."

Figure 4. Parallel Chords, Fourths and Harmonic Intervals (measure 27-28; 74-75)⁶

4.3. Tone Processing (Pedal Use)

The piece's inner voices are played in a diatonic tone to generate a bell-like sound. Repetitive intervals strengthen the basses' long fourths and fifths to mimic the sound of a gong, harmonizing resonance and marking the phrase structure. Figure 4.4 shows that

⁴ Claude Debussy, *Estampes*, ed. Isidor Philipp (New York: International Music Company, 1959), 03.

⁵ Debussy, *Estampes*, 05.

⁶ Claude Debussy, *Estampes*, ed. Isidor Philipp (New York: International Music Company, 1959), 05 and 08.

the bass presentation in measures 3-6 divides the four-measure phrase into two sub-phrases. The piece is played on sustained, weak pedals, drawing on ambiguous and dissonant seventh, ninth, and eleventh chords in harmonic chord progressions. Since Gamelan music uses pentatonic (pelog) and heptatonic (slendro) tones based on its characteristic musical system, it results in tones that do not sound like 440 or 442hz, differing on the high and low sides of the scale. Being a percussion instrument, Gamelan uses steel pianos and gongs, which integrate unique sounds while creating an unstable harmonic sentiment. Debussy employed several pedals and discordant harmonics to transmit sound rather than classical harmonic purposes in his compositions. This produces a richer, more varied timbre and a distinctive soundscape similar to Gamelan's musical spirituality.



Figure 5. Bass Line (phrases, measure 3-6)⁷

4.4. Musical Terminology (Dynamics and Tempo Changes)

Debussy employed descriptive language and varying dynamic degrees (*pp*, *p*, *ff*) to elicit specific feelings while creating an intentional atmosphere through his music. Rather than providing exact metronome marks, he relied on lyrical and impressionistic types. For instance, in “Pagodas,” the terms *Moderement anime* (moderately lively and energetic), *animez un peu* (get slightly excited), and *Retenu Tempo I* (maintain a moderate deceleration and return to the initial tempo) were employed to instruct performers to alter the piece’s tempo. This contrasted with providing a precise rhythmic indication, such as the specific value of 120 BPM. The piece’s detailed terminological instructions enable performers to successfully convey their own emotions through playing while accurately depicting the overall tone and the piece’s personality, providing them with greater versatility. Debussy’s musical language reflects the tempo fluctuations of Gamelan music. It also elucidates the several descriptive levels regarding shifts in mood, scenery, scene, and movement as Gamelan music accompanies dances, plays, and shadow puppetry. Allowing the performer to create his distinct style while interpreting the music in this fashion, Debussy, along with his flexible vocabulary of expression, will enable performers to dynamically shape the music while reacting to the work’s emotional content.

4.5. The Development of Motives

The musical composition “Pagodas” is structured into three main sections: exposition, development, and recapitulation. These sections can be divided into the introduction, major sections, transitional pieces, and developmental fragments. The evolution of these musical combinations is a crucial component of this composition. They serve as the musical framework's central focus and connection while effectively showcasing the structural rhythm through progressive initial development, variations, simulations, and other techniques. Revisiting Debussy’s “Pagodas” illustrates that the subject undergoes dynamic shifts and transformations throughout the composition, showcasing a striking and seamless harmonic elegance.

The opening section (B-F#-G#) in measures 1-2 introduces listeners to Debussy’s unique world of oriental music, imbued with its perfect harmonic intervals in fifths. Part A (bars 3-14) unfolds with an expressive thematic melody, where densely intertwined harmonic and melodic lines interact. Part B (bars 15-22) creates tension and a strong contrast through repeating triplets with the left hand and dissonant diatonic intervals. Section B spans measures 15 to 22 and comprises recurring triplet patterns with the left hand and discordant diatonic intervals, specifically seventh and ninth chords, with the right. Such a combination produces a pronounced tension and contrast, enhancing the music’s diversity. The A section’s rhythm in measures 23-32 is altered with triplets against a duplet pattern. In the Coda, triplets and harmonic intervals in the 4th and 5th degrees highlight the recurring left-hand melody, resulting in oriental tranquility.

Within the development section (measures 33-52), a fresh dialogue emerges as the music shifts in rhythmic thematic structure while expanding harmonically. As such, in measure 37 of the development section, the righthand transitions from playing sixteenth, eighth, and quarter notes to playing thirty-two sixteenth and sixteenth notes, indicating a noticeably faster rhythm. Gamelan music is composed of a core melody called “balungan.” This serves as the primary tempo and enables the main melody to be played faster or slower. Following the execution of a fundamental melody during an orchestra’s performance, the metallophone elaborates on the core melody while accentuating its importance. Following the main melody’s execution, certain metallophones have embellishments highlighting the vertical arrangement and interlocking patterns between the three voices.

The recapitulation spans measures 53-98 and restates the theme’s harmonies, melodies, and rhythms. In the finale, specifically measures 78-98, the piece concludes in a subdued manner, gradually fading away (as softly as possible). This is accompanied by lively embellishments (triplets, quartets, quintuplets) and the left hand playing the theme. Debussy adeptly captured the essence of Gamelan music, precisely incorporating its distinctive features such as the colotomic meter, variations, and the consistent utilization of diverse rhythmic patterns to iterate, circulate, and envelop the theme. Despite the initial disclaimer that “Pagodas”

⁷ Claude Debussy, Estampes, ed. Isidor Philipp (New York: International Music Company, 1959), 03.

was not an exact recreation of Gamelan's original music, the composer adeptly reproduced the distinctive features of Gamelan music in his piece. Ethnomusicologist Brent Hugh noted that the cyclic form of gamelan differs from western tonal music and "traditional forms" which are goal oriented. These musical forms are carefully designed to "develop" ideas and to move toward a climax. In contrast, the cyclical pattern of Gamelan music represents the oriental view of endless cycles of history, death and rebirth, and the rise and fall of empires. This Gamelan cycle, which may be repeated any number of times and does not progress in a Western sense, is a perfect analog of this static view of history.⁸

This description validates Debussy's faithful depiction of the musical essence of Gamelan in "Pagodas." He employed distinctive musical language and efficient techniques to integrate the concept of cycles into his compositions. This showcases a distinct allure of Eastern music and Debussy's profound understanding of and appreciation for oriental culture.

5. Conclusion

A comprehensive understanding of musical compositions can be achieved by examining the biographical context of Debussy's life, his personal encounters, and the intricacies of his compositional process. Claude Debussy, a renowned composer from France during the late 19th and early 20th centuries, endured thorough musical education in the Western tradition, while studying at the Paris Conservatory. He drew inspiration from French music and Impressionist painting, known for capturing fleeting changes through contrasts of light and color. Debussy's musical compositions were pioneering and revolutionary in the context of traditional music. They also encompass a profound comprehension and assimilation of diverse musical traditions. By witnessing the Javanese Gamelan music and dance during the Paris Exposition, Debussy acquired a deep understanding of unique auditory characteristics and successfully integrated the fundamental principles of Gamelan music into his work. Gamelan music is a musical system originating from the Eastern, characterized by unique scales, harmonies, and rhythms. Debussy drew inspiration from Eastern music and included Gamelan musical attributes to enhance his compositions. His use of the pentatonic scale, unique harmonic progressions, and intricate rhythms are the prime musical elements that demonstrate the diversity and global nature of music.

Debussy's composition "Pagodas" can be understood on a deeper level by integrating the principles of Western and Gamelan music. This musical composition demonstrates Debussy's musical virtuosity and holds a significant space, exerting a profound influence on the annals of musical history. At the same time, it highlights the significance of incorporating cross-cultural study within music research. The creative merit of a musical composition is not solely derived from the novelty or uniqueness of the musical elements employed but also resides in the manipulation, integration, and reinterpretation of these elements. Within a globalization framework, the interchange and assimilation of various musical cultures can offer innovative avenues and perspectives for advancing music composition and investigation. Cross-cultural communication and fusion can enhance music creativity and expression while fostering understanding and respect across cultures. As such, researching and understanding multicultural music is vital for music scholars.

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⁸ Brent Hugh, "Claude Debussy and the Javanese Gamelan," Paper presented at the conference, University of Missouri-Kansas City, 1998, p. 7.