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Gamelan Reinvented: Cultural Sound Transformation in East Java's Membranophone Ensembles

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Abstract : This study explores the phenomenon of *pèghâ'* in the musical traditions of *terbhâng ghendhing* and *kemplang* in Probolinggo and Bondowoso, which emerged as a response to past religious prohibitions on the use of metal gamelan instruments. The research focuses on uncovering the adaptation of metal gamelan music into the membranophone ensembles of *terbhâng ghendhing* and *kemplang* from a musicological perspective. Using qualitative and ethnographic approaches, data were collected through participant observation, in-depth interviews, and literature review. The findings reveal that elements such as *kejhungan*, drumming patterns, *bonang* patterns, and *ghendhing* structures were preserved, although the shift from metal to membrane caused significant changes. These changes resulted in a playing style that is more repetitive, dynamic, and aligned with the membranophone's characteristics. This study also challenges the conventional view of membranophones as purely rhythmic instruments, demonstrating their capability to perform complex melodic roles in *terbhâng ghendhing* and *kemplang*. The process of *pèghâ'* underscores traditional music as a dynamic entity that continues to evolve through local creativity, creating new musical identities while maintaining its cultural roots.

Keywords: *gamelan, membranophone, terbhâng ghendhing, kemplang, madura*



1. Introduction

Indonesian traditional music is a defining cultural expression, shaped by the nation's historical, social, and religious currents. Gamelan, a significant musical art form, is integral to numerous traditional activities, religious ceremonies, and communal gatherings. In regions such as Madura and the Tapal Kuda area of East Java—encompassing Probolinggo and Bondowoso—metallic gamelan has shaped local musical identity, resonating through the community's daily life. However, historical records reveal a period when the use of metal instruments in gamelan faced considerable opposition, imposed by local Islamic religious authorities (Bouvier, 2002, p. 84; Departemen Pendidikan dan Kebudayaan, 1986, pp. 100–101, 204–205; Hastanto, 2005, pp. 91 & 107; Setiawan, 2010). This prohibition precipitated a notable divergence in the region's gamelan tradition, altering its course and reshaping its cultural development. Rather than passively allowing the tradition to wane into obscurity, Madurese communities in Bondowoso and Probolinggo have demonstrated resilience, undertaking creative efforts to sustain and adapt it. They ingeniously transformed metal gamelan instruments into membranophones, giving rise to new forms such as *terbhâng ghendhing* and, thereby safeguarding their musical traditions. At the time, both the community and local religious authorities contended that membranophones did not contravene Islamic law—and were therefore permissible—fulfilling religious requirements. This phenomenon not only highlights the resilience of tradition in the face of adversity but also underscores the transformative power of art as a medium of negotiation between local culture and governing power.

This adaptation process gave rise to the local term *pèghâ'*, which will be explored throughout this article. The term *pèghâ'* emerged from ethnographic field research in Bondowoso and Probolinggo as a locally grounded concept. Musicians of *kemplang* and *terbhâng ghendhing* ensembles use this term to describe the creative process of adapting gamelan *gending* into their unique musical expressions. The term *tokâng pèghâ'* refers to a musician skilled in transforming *ghendhing* gamelan—specific compositions or melodies performed on gamelan—into a membranophone ensemble. In Madurese, *tokâng* translates to 'expert,' while *mèghâ'*—derived from *pèghâ'*—literally means 'to catch'; however, in this context, it is more accurately understood as 'to grasp.' Consequently, *tokâng mèghâ'* or *tokâng pèghâ'* signifies an expert skilled in grasping and adapting gamelan traditions into innovative membranophone forms (Pawitra, 2009: 533). In everyday Madurese life, the term *pèghâ'* commonly refers to the act of catching nimble creatures such as crickets, birds, fish, frogs, flies, dragonflies, and similar animals. Moreover, *tokâng pèghâ'* is

associated with various professions, such as *tokâng pèghâ'-na mano'* (bird-catching expert), *tokâng pèghâ'-na jhuko'* (fish-catching expert), and *tokâng pèghâ'-na olar* (snake-catching expert), reflecting its broader application in everyday life. The term *pèghâ'* conveys a deeper meaning that transcends mere catching—it requires a mastery of precision, patience, speed, accuracy, and an acute sense of awareness. In the musical milieu of Probolinggo and Bondowoso, *pèghâ'* embodies the artistry of musicians as they capture the "sound image" of *gending* gamelan music, skillfully reinterpreting it within the expressive forms of *terbhâng ghendhing* and *kemplang* ensembles.

The term *pèghâ'* encompasses not only the substitution of instruments but also the ingenuity and adaptability required to preserve and reimagine the musical essence of gamelan. It reflected the resilience of local communities, illustrating how they not only endure but actively shape their traditions through contextually grounded practices. Madurese communities in the Tapal Kuda region have not only preserved the gamelan's role as a medium for expression and ritual but have also introduced distinct nuances to *gending*, traditionally structured for metallic gamelan, when performed with membranophone instruments. The process of *pèghâ'* is neither straightforward nor expeditious. It necessitates a profound understanding of gamelan's musical structure, the attributes of membranophones, and mastery in adapting playing techniques.

Conversely, this transformation process impacts not only the technical aspects of musical performance but also the symbolic and spiritual values embedded therein. Metallic gamelan instruments, laden with traditional meaning, are reinterpreted through membrane instruments. Despite their physical dissimilarity, membranophones continue to embody the essence of gamelan music, maintaining its cultural integrity through the reallocation of instruments. This phenomenon demonstrates that music is not a static entity; it is inherently dynamic, capable of adapting to social changes and prevailing norms.

The phenomena of *pèghâ'* exemplifies the nuanced negotiation between art and religion in public domains. The prohibition by religious authorities sets explicit restrictions on artistic endeavors. On the one hand, the prohibitions defined by religious authorities established clear boundaries for artistic practices. At the same time, local Madurese communities have skillfully navigated these restrictions, finding ways to uphold their traditions while adhering to the dominant norms. This positions *pèghâ'* a symbol of ingenuity forged under constraint, evolving into a unique and esteemed heritage. Moreover, membranophone instruments in the *terbhâng ghendhing* and *kemplang* ensembles are far more than functional substitutes for

metallic gamelan instruments. With their unique tonal qualities and distinct playing techniques, they introduce a new timbre to gamelan gending compositions, expanding the musical palette. These innovations not only uphold traditional musical repertoires but also broaden and diversify the musical landscape within the local cultures of Probolinggo and Bondowoso.

However, this phenomenon raises critical questions regarding what is retained and what is altered in this transformation. Does the musical structure of the gamelan remain intact? In what ways do rhythmic patterns and playing styles adjust to align with the distinctive characteristics of membrane instruments? What aspects of gamelan music are 'grasped' (*pèghâ'*) and which are relinquished in the process? What are the artistic and musical repercussions that arise from such adaptations? These inquiries serve as essential entry points for comprehending the intricacies of the *pèghâ'* phenomenon and its implications for the conservation of traditional music.

This research explores the process of adaptation, identifying the musical elements retained and examining how local musicians skillfully navigate these shifts to ensure that the tradition thrives amidst challenges. Grounded in a qualitative approach and ethnographic methodology centered on Participant Observation, this study aims to enrich ethnomusicology by offering new insights into the intersections of tradition, religion, and creativity within Indonesian traditional music.

The phenomenon of *pèghâ'* encompasses not only the modification of musical instruments, but also how cultures handle and “grasp” change, adapting to shifting contexts with creativity and resilience. This research presents traditional music not as a static relic of the past but as a dynamic, living force—one that persists and flourishes amid evolving historical currents.

2. Literature Review

The transformation of membrane music, as exemplified by *terbhâng ghendhing* and *kemplang*, demonstrates the process of adaptation, where the metallic resonance of gamelan is reallocated to the distinct timbres of membranophone ensembles. The concept of adaptation has long been a focal point in disciplines such as art, literature, and media studies, frequently associated with intermediality and translation—processes that describe the movement from one medium or form to another. Defined in the dictionary as the act of adjusting, changing, or modifying to suit specific contexts, “adaptation” encompasses a variety of methods and interpretations (Hutcheon, 2006, p. 07). Greenberg (1998, p. 115) further expands on this, describing adaptation as,

“Adaptation is repetition, but repetition without replication. And there are manifestly many different possible intention behind the act of adaptation: the urge to consume and erase the memory of the adapted text or call it into question is as likely as the desire to pay tribute by copying.”

Adaptation extends beyond mere replication or transfer of texts; it is a deliberate and reflective process that demands careful consideration. Hutcheon acknowledges that the concept of adaptation is fluid and can expand in scope over time. It is not limited to film and stage productions but extends to various creative practices, including musical arrangements, cover songs, visual art reinterpretations, video games, and beyond, demonstrating its broad applicability across artistic and media disciplines.

In musicology, the concept of adaptation seldom takes center stage in discussions about the phenomenon of musical instrument substitution. Within the context of Western music, terms such as *transcription*, *arrangement*, and *instrumentation* are more commonly used to describe this process. Among these, transcription often garners greater attention from musicologists and ethnomusicologists, serving as a key framework to explain the practice of instrument substitution or reallocation. Jones offers a detailed exploration of the concepts of arrangement and transcription, defining them as follows:

“Arrangements, I would call a playing of the notes in another medium; transcription a recreation or making-over with regard to their imaginative and creative content. The first is as though one should play the Bach Flute Sonatas on the Violin or the Grieg Violin Sonatas on the Viola, making the necessary adjustments for the change in medium; the second is exemplified by the Liszt Tristan Liebestod, a definite re-making of the orchestral and vocal material into a new piece (Jones, 1935, p. 305).”

The term *transcription* is rooted in the Western European tradition of documenting music through written notation. In an era when music was primarily preserved in this form, transcription became an essential tool for capturing and transmitting musical works. Even with the emergence of sound recording technologies such as the phonograph, it remained a crucial method for documenting and analyzing music (List, 1963). An illustrative example of this practice is found in the work of Béla Bartók, a composer and musicologist renowned for his dedication to European folk traditions. Bartók's field research involved recording Hungarian folk music with a phonograph and meticulously transcribing these recordings into detailed notations. These transcriptions were not merely documentation; they preserved the character of the folk melodies and provided the foundation for his compositions, where he reimagined traditional motifs within the framework of modern music (Tari, 2006, p. 141).

The term *transcription* is frequently employed in Western music to describe the creative process of adapting compositions for different instruments or formats. Notable examples include the reinterpretation of an Asturias piece, initially written for piano, into an arrangement for guitar, or the reallocation of an orchestral composition into a piano score (Bates, 2016; Cellier & Rothwell, 1925; Jones, 1935). This emphasis on transcription highlights the pivotal role of written notation in Western musical traditions, where the process of (re)composition is typically conducted through written media, facilitating such adaptations.

By contrast, the processes of composition and re-composition in non-Western traditions, such as those in Indonesia, follow a fundamentally different approach, transmitted through oral practices. Rather than relying on transcription, Indonesian traditional music is preserved through collective memory, which forms the basis for both adaptation and continuity. The music of *terbhâng ghendhing* and *kemplang* exemplifies this practice, shaped by the communal memory of the Madurese community in the Horseshoe region (*Tapal Kuda*) of East Java. These works are not preserved through written notation but are instead passed down, and embodied through melody, harmonic interplay, and auditory textures, reflecting a living, communal tradition that evolves with its practitioners.

The fundamental difference between the practice of instrument transposition in Western music and the traditions of *terbhâng ghendhing* and *kemplang* lies in their approaches to adaptation. In Western music, instrument reallocation focuses on meticulously preserving the detailed structure of music as dictated by existing notation. Conversely, in *terbhâng ghendhing* and *kemplang*, the process of interpretation and re-composition is shaped by memory, consensus, cultural interpretation, and the characteristics of the instruments employed. Both approaches accommodate changes arising from instrument translation, as the unique timbre, sound qualities, and techniques of each instrument inevitably shape the resulting musical outcome.

In Western music, *instrument transference* is also referred to as *instrumentation*, which typically pertains to the manipulation of timbre and other sound components within music composition. During the early stages of Western music, particularly in the Baroque period, timbre was regarded as secondary to core elements such as pitch and rhythm (Charronat et al., 2004, p. 240). The primary focus during this era centered on the interplay of pitch, duration, and loudness, while timbre remained largely overlooked. However, by the Classical and Romantic periods, the role of instrumentation underwent rapid development, as evidenced by the publication of numerous foundational textbooks on the subject, which subsequently formalized the

study of orchestration and timbre. (Berlioz, 1843; Gevaert, 1885; Guiraud & Busser, 1933; Kastner, 1837; Koechlin, 1944; Rimsky-Korsakov, 1964).

Building on Charronat's perspective on instrumentation, the transference of instruments within the traditional Madurese communities of the Tapal Kuda region offers a compelling avenue for further academic exploration. In Western musical tradition, transference is typically conducted by an individual composer, while in the Madurese tradition, it evolves through a communal process shaped by collective consensus and shared knowledge. Unlike contemporary music, which emphasizes innovation, or Western tonal traditions focused on expanding tonal aesthetics, instrument transference in the context of traditional Madurese music serves a functional purpose: it is driven by the cultural and practical imperatives of the society in which it occurs.

Other significant studies on the phenomenon of musical instrument transference or reallocation within Indonesian culture offer valuable comparative insights. Ako Mashino (2021) explored *rebana* music in the Sasak community of East Bali, investigating how musical acculturation emerges through cultural interaction. Nugraha (2022) examined the adaptation of metal gamelan into a wooden *ghâlundhâng* ensemble in Bondowoso, focusing on the complex interlocking patterns and the spiritual dimensions embedded in this music form. Similarly, Pratiichno (2003) studied the art of *jemblung* in Banyumas, which reinterprets metal gamelan as an "oral" gamelan, where vocalized onomatopoeic sounds replicate the musical elements of gamelan. Each of these studies showcases how music has evolved to suit new mediums while maintaining their cultural significance.

This research seeks to deepen theoretical discourse on instrument transference or reallocation by investigating the membranophone ensembles *terbhâng ghendhing* and *kemplang*, regarded as reinterpretations of metal gamelan music. By examining the creative strategies of migrant Madurese communities, it uncovers how music becomes a medium for cultural negotiation and adaptation. At the same time, this study fills a critical gap in understanding the translation of metal instruments into membranophones. Instrument transference goes beyond musical innovation; it serves as a powerful reflection of the ingenuity and resilience of migrant Madurese communities, who adapt their traditions to preserve relevance and vitality in new cultural settings.

3. Methods

This research employs a qualitative approach with ethnographic methodologies to examine the phenomenon of musical adaptation, focusing on the transference of

metal gamelan instruments into membranophones within two specific ensembles: *terbhâng ghendhing* and *kemplang*. The research corpus is grounded in two specific locations in the Horseshoe region of East Java: Bondowoso and Probolinggo. In Bondowoso, the study focuses on *kemplang* music performed by the Sumber Batu Lawang *rombongan*, in Banyuputih village, Wringin sub-district, Bondowoso. Meanwhile, in Probolinggo, the research examines *terbhâng ghendhing* music performed by the Sumber Jaya *rombongan* in the Sumberpoh village, Maron sub-district. *Rombongan* is a local term used by the Madurese community—particularly the Tapal Kuda region of East Java—to refer to traditional music and arts ensembles. This article will consistently use the term *rombongan* throughout when mentioning specific ensembles or troupes.

Data were collected through the combination of Participant Observation, where researchers immersed themselves in diverse musical activities at the research sites, in-depth interviews with musicians and local cultural ambassadors, and comprehensive recordings of musical performances. Participant observation and interviews have provided valuable insights into the musical, social, and cultural dimensions of these practices, while the recordings served as the foundation for in-depth analysis, explored in detail in the Analysis section of this article. The recorded data was subsequently transcribed into *kepatihan* notation, a widely accepted system for gamelan music analysis, enabling a thorough examination of the musical structures and their transformations.

It is important to note that the musicians of *terbhâng ghendhing* and *kemplang* do not employ a notation system in their musical practices, nor do they adhere to the conventional rules and structures typical of Javanese gamelan music. Rather, the transmission and performance of this music are grounded in oral traditions, where musicians rely on intuition, memory, and a shared understanding to both perform and preserve their repertoire. However, it was a deliberate choice for this article to primarily focus on the translation of metallic gamelan music into membranophones through the lens of music notation. While this approach offers valuable insights, it also limits the scope of the research by focusing on the specific phenomenon at hand. As a result, a notated transcription can never fully “grasp” or “capture” the essence of the *pèghâ'* phenomenon, offering only a partial representation.

Nevertheless, when examining the reallocation of gamelan instruments into *terbhâng ghendhing* and *kemplang*, the use of notation remains relevant. It serves a strategic role in facilitating musical analysis, offering a framework for interpreting the structural and adaptive elements of these traditions. Several factors informed the decision to use *kepatihan* notation instead of Western staff notation in this research,

with the primary consideration being the musical structure of *terbhâng ghendhing* and *kemplang*, which align more closely with the characteristics of gamelan music. Moreover, this choice considered the cultural aspects of the music, aiming to avoid biases that could arise from disparities in musical perceptions and concepts between Western music culture and gamelan traditions. The transcribed music was then subjected to musicological analysis, enabling the identification of patterns, structures, and other elements that reveal the underlying processes of the *pèghâ'* phenomenon and its nuanced mechanisms within the adaptation process.

4. Results

a. The Role of *Terbhâng Ghendhing* and *Kemplang* in the Islamic-Madura Cultural Constellation

Terbhâng ghendhing and *kemplang* are distinct forms of musical expression developed by Madurese communities in Bondowoso and Probolinggo. These ensembles adapt traditional Madurese gamelan into a pitched membranophone format, reflecting a significant shift in instrumental practice. This transformation arose in response to a historical ban on the use of metal gamelan instruments during a specific period, which encouraged innovation through the use of alternative materials, such as leather membranophones.

The *terbhâng ghendhing* ensemble is composed of eight *terbhâng* instruments—traditional frame drums known as *rebana* that vary in shape and size—accompanied by a large *jidur* or *bedug* drum and a *kencèr*, a small brass cymbal akin to a tambourine. Each *terbhâng* is calibrated to notes that closely approximate the Madurese *slendro* scale, enabling the ensemble to produce harmonies evocative of metal gamelan when played collectively. The *terbhâng* are arranged by size, from largest to smallest, with each instrument designated using local terminology: *terbhâng pettèt budi*, *terbhâng tenggo'*, *terbhâng dhu' tenga/sanga'*, *terbhâng dhu' adâ'/lèma'*, *terbhâng paneros/enem*, *terbhâng kacèran*, and *terbhâng lakè'an*. Additionally, the *terbhâng kendhângan* instrument adds a layer of rhythmic complexity to the ensemble. Terms such as *pettèt*, *tenggo'*, *enem*, *lèma'*, and *paneros*, which are also included in the lexicon of Madurese gamelan, further highlight the cultural and linguistic continuity between these musical forms. As Darus, a Madurese gamelan master in Sumenep, Madura (interview on June 23, 2024, in Rubaru Sumenep Madura) explains:

“Pak Sunarwi once explained that, unlike in Java, Madura does not use gamelan notation terms. Instead, terms like *rajâ* (2), *pettèt* (1), *tenggu'* (3), *bhârâng* (5), *enem* (6) are used to refer to the notes in the Madurese gamelan.”

Bouvier (2002, p. 84) draws on data from the East Java Department of Education and Culture (Depdikbud) (1986, pp. 100–101, 204–205), which provides documentation on the *terbhâng ghendhing* ensemble. Within this source, the term *ngremo terbhâng ghendhing* is cited as follows:

“A regional dance from Probolinggo, *ngremo terbhâng ghendhing* features an orchestra of at least nine dances of various sizes organised according to the pentatonic Javanese *slendro* base-tone (hence the name of the notation). The number of *terbhâng* players thus forms a kind of metallophone gamelan due to the tonal base used and the roles assigned to each *terbhâng*. *Ghendhing* is of Central and East Javanese origin (e.g. *Sampak* and *Walangkekek*); singing remains Arabic in style. 'When the Islamic boarding schools denied the inclusion of Hindu Indonesian gamelan in the arts education of the boarding schools, people devised this *terbhâng*' (1986: 101).”

Figure 1. *Terbhâng ghendhing*.
Sumber Jaya rombongan,
Maron, Probolinggo
Source: Panakajaya (author),
2022



This observation supports Setiawan's analysis (2010), which argues that the art of *terbhâng ghendhing* arose in response to cultural tensions within the Madurese community in Java, particularly influenced by Islamic authorities' perspectives on music, specifically gamelan.

Probolinggo Regency serves as a vital repository of the region's cultural heritage, with *terbhâng ghendhing* representing a tradition passed down through generations, since the spread of Islam in the area (Interview with Mr. Tris, artist and leader of the *Terbhâng Ghendhing* Sumber Jaya rombongan, conducted on December 28, 2022, in Sumberpoh, Maron, Probolinggo). However, the continuity of this art form was

profoundly disrupted during the Covid-19 pandemic, which led to the loss of many *terbhâng ghendhing* artists. Today, the Sumber Jaya *rombongan*, which was established in the 1980s, remains the sole ensemble in the Maron region preserving this tradition. Renowned for its contributions, Sumber Jaya has represented Probolinggo Regency at both provincial and national cultural events, including performances at Taman Mini Indonesia Indah. This *rombongan* ensemble performs *terbhâng ghendhing* across diverse contexts, including *parlo* wedding ceremonies, *arèsan* and *kompolan* gatherings, village festivals, Islamic holidays, and other special events. Furthermore, *terbhâng ghendhing* frequently provides the musical accompaniment for traditional performing arts, such as *jhâran kènca'*, *penca'an*, and *loddrok*, demonstrating its adaptability and enduring cultural significance.

The cultural forces at play in Probolinggo's creative landscape deserve closer scrutiny. Linguistic and social traits of this region closely mirror those of Pamekasan and Sampang on Madura Island, particularly through the Bârâ' dialect. From a sociolinguistic perspective, the Madurese language is categorized into two main dialects: 1) Madhurâ Bârâ' (Western Madurese) and 2) Madhurâ Tèmor (Eastern Madurese). The Western Madurese dialect is primarily spoken in the regencies of Bangkalan, Sampang, Pamekasan, and several districts in Sumenep Regency bordering Pamekasan, such as Parenduan (in the southern region), Gulukguluk (central region), and Pasongsongan (northern region). Outside of Madura Island, this dialect is also prevalent in Gresik, Surabaya, Pasuruan, Probolinggo, Jember, and Bondowoso. In contrast, the Eastern Madurese dialect is mainly spoken in Sumenep Regency and, outside of Madura, in Situbondo and parts of Banyuwangi Regency (Sofyan, 2009, p. 41). Historically, the Madurese population in Probolinggo traces its roots to migrants from these two regions in Madura (Husson, 1997, p. 93). Over time, close interaction with the Javanese community has fostered a unique cultural synthesis. This distinctiveness is evident in their language, where speakers alternate between Madurese and Javanese, often blending the two within a single conversation. The influence of this cultural and linguistic intermingling is further expressed in *terbhâng ghendhing*, where Javanese terms are incorporated into the sung *kèjhungan* verses, as well as in the performance of Jula-Juli, a typical East Javanese *gending*. *Kèjhungan* is a unique form of singing from Madura, characterized by high-pitched vocal techniques. The term comes from *kèjhung*, meaning song. In the context of Javanese gamelan, the aesthetics of *kèjhungan* are comparable to *bowo*, where vocal improvisation exists but remains tied to Javanese musical principles, such as sensitivity to *pathet* (Suyoto, Haryono, & Hastanto, 2015, p. 36). According to Mistortoify, *kèjhungan* embodies a

sense of heritage as a traditional form of singing orally passed down by the Madurese community, marked by its distinctive *cengok* (ornamentations) that resonate with collective ethos (Mistortofy, 2014, pp. 2–3). This illustrates not only the cultural synthesis between Madurese and Javanese traditions but also the Madurese adaptability in maintaining and reshaping their musical and linguistic practices.

We now turn our attention to *kemplang* another distinct membranophone ensemble, recognized by various regional nomenclatures: *dhung-dhungan* and *glundengan* in Jember; *terbhâng*, *katèpongan*, *tèmpong*, and *kemplang* in Bondowoso; *kemplang* in Probolinggo. The Bondowoso District Culture and Tourism Office officially refers to it as 'ketipung art.' (*seni ketipung*). However, this term appears contrived, lacking resonance with the community, and failing to gain widespread acceptance. Despite its formal use by the government and occasional adoption by *rombongan* on signboards or performance backdrops, it remains largely unpopular. For this study, the term *kemplang* was chosen due to its widespread use and recognition, reflecting the cultural realities of the *rombongan* ensembles and their authentic identity as defined and practiced by the participants.

Kemplang is a membranophone ensemble composed of six to eight drums resembling *kendang*, each varying in shape and size. Each drum is fitted with two leather membranes, tuned to the *slendro* scale to produce notes that evoke the sounds of a metallic gamelan. While both *terbhâng ghendhing* and *kemplang* adapt metallic gamelan music, they differ in terms of the range of notes. In *terbhâng ghendhing*, each player is confined to a single note due to the instrument's one-sided membrane, whereas the double-headed *kemplang* allows musicians to produce two tones per drum. This feature facilitates more complex sound structures, expanding the ensemble's tonal palette and versatility.

The *kemplang* instruments are assigned names in local Madurese terms, which vary across different communities, reflecting the distinct cultural nuances of each region. For example, the Sumber Batu Lawang *rombongan* in Banyuwangi refers to their instruments as *pangotèran*, *pettèt*, *gendong*, *pananggul*, and *panengngah*, whereas the Curah Dami *rombongan* identifies them as *panyacca*, *panerros*, *panembhung*, and *panengngah*. Despite these variations in nomenclature, the instrumental functions and performance techniques remain consistent. Henceforth, this discussion adopts the terminology from the Sumber Batu Lawang *rombongan* to describe the *kemplang* ensemble's instruments, which also perform gamelan *gendings*—traditional compositions from the gamelan repertoire. However, despite sharing the same repertoire, *kemplang* ensembles exhibit distinct tonal qualities and playing patterns that differentiate them from metallic gamelan ensembles.

Sri Hastanto (2003, pp. 138-139) describes the instruments and tuning system of the *kemplang* ensemble in Probolinggo, East Java. His account of the Probolinggo *gamelan kemplang* follows,

“Kemplang is an ensemble of percussion instruments, consisting of several tuned drums, Each drum has two membranes, with each membrane tuned to a specific pitch. Typically, at least five drums are used, creating a melody with interlocking timbres, enhanced by additional rhythmic patterns to produce a distinct and complex musical texture. The tuning system of the ensemble follows the slendro tuwa scale.”

Hastanto elaborates on the socio-religious setting and cultural context in which *kemplang* music developed and prospered, as follows:

“This art form (kemplang) was historically practiced in the communities around surau (small islamic prayer houses) and mosques in the Probolinggo area, becoming part of the activities of young people attending religious study sessions. The development of kemplang is believed to have been influenced by a prohibition from local Islamic religious leaders against the use of gamelan. Consequently, gamelan instruments were replaced with kendhâng, which did not fall under these restrictions.”

Accounts from *terbhâng ghendhing* performers in Probolinggo suggest that *kemplang* emerged during the Islamization of Java, a period when the performance of metal gamelan was deemed *haram* under Islamic law (Interview with Mr. Mahfud, musician and leader of the *Kemplang Sumber Batu Lawang rombongan*, on January 5, 2023, in Banyuputih, Wringin, Bondowoso). In response, the Madurese community created an ensemble of leather instruments, allowing them to continue performing gamelan *gendings* while avoiding religious disapproval. This adaptation preserved their musical traditions within the boundaries set by Islamic authorities. Hastanto (2003, p. 139) also notes that the rise of *kemplang* in Probolinggo was directly influenced by local Islamic leaders' ban on metal gamelan, illustrating the complex interplay between religious authority and cultural resilience.

Kemplang is prominently found in the Bondowoso Regency, though analogous traditions exist throughout the Tapal Kuda (Horseshoe) region. Field observations reveal distinct differences in its musical execution and performance practices. Among the notable *rombongan*, the *Sumber Batu Lawang rombongan* from Banyuputih village, Wringin sub-district, stands out not only for its mastery, but and its commitment to mentoring emerging musicians, thereby ensuring the ongoing relevance and development of *kemplang* as a living tradition. Similar to *terbhâng ghendhing* in Probolinggo, *kemplang* in Bondowoso is performed at a range of events, including *parlo* wedding ceremonies, *arèsan* and *kompolan* gatherings, village celebrations, and Islamic holidays. Among these, *parlo* and *kompolan* are most salient.

Kompolan refers to gatherings of individuals committed to preserving and advancing traditional arts, where participants actively engage in sustaining the tradition. These gatherings play a pivotal role as both custodians of heritage and catalysts for innovation, ensuring the continued vitality of *kemplang* within its cultural context.

The cultural characteristics of the Madurese in Bondowoso exhibit distinct differences when compared to those in Probolinggo, particularly in terms of linguistic nuances and artistic expressions. Historically, the Madurese population in Bondowoso traces its roots to migrants from Sumenep and Pamekasan (Husson, 1997). Most Madurese in Bondowoso communicate in the Madurese *bârâ'* dialect, with few individuals fluent in Javanese. In the realm of performing arts, particularly in *kemplang*, influences from the Madurese *ketoprak* (*tabbhuwân*) traditions of Sumenep and Situbondo are evident: the incorporation of rhythmic patterns; artistic compositions; opening acts; other stylistic idioms inherent to the *ketoprak* performance style.

Figure 2. Kemplang: The Sumber Batu Lawang Ensemble in Banyuputih, Bondowoso
Source: Panakajaya (author), 2022



Both *terbhâng ghendhing* and *kemplang* membranophone traditions emerged within Madurese-Javanese communities, particularly among speakers of the *Bârâ'* dialect in the Horseshoe region. These traditions are not merely musical expressions; they are deeply integrated into the cultural and religious life of the community. This connection is especially evident in their association with the *langghârân* religious tradition, a unique Madurese system of Islamic education that takes place in small prayer and teaching spaces, known as *langgar*, *surau*, or *mushalla*. The musical

heritage of *terbhâng ghendhing* and *kemplang* are transmitted by the *kiyai langghâr*, local Islamic educators who play a critical role in rural communities. Unlike more prominent *kiyai* who oversee Islamic boarding schools (*pesantren*) and hold broader influence, the *kiyai langghâr* specialize in teaching Islam within the confines of a single village, while also providing music lessons in the *langgar*.

Such music is traditionally performed following Qur'an recitations and frequently accompanies *pencak silat*, a traditional martial arts practice integral to the religious and cultural milieu of the region (Interview with Mr. Mahfud, artist and leader of the *Kemplang Sumber Batu Lawang* rombongan, on January 5, 2023, in Banyuputih, Wringin, Bondowoso). In Madurese society, the *kiai* is a deeply venerated figure, ranking just below parents in the hierarchy of respect, as articulated in the philosophy "*bhuppa'*, *bhâbu'*, *ghuru*, *rato*" (father, mother, teacher, leader). Beyond merely serving as a religious instructor, the *kiai* stands as a cornerstone of community life, providing guidance across social, cultural, and political spheres (Wiyata, 2013). Within the realm of music, the *kiai* remains instrumental in the development, dissemination, and teaching of *terbhâng ghendhing* and *kemplang* within the educational and communal framework of the *langgar*. However, over time, these musical expressions have likewise transcended their original religious context, adapting to serve secular and commercial activities. This transformation underscores their evolving functions and enduring relevance, reflecting the dynamic interplay between tradition and modernity in Madurese culture.

The *terbhâng ghendhing* instruments found in the Maron region of Probolinggo are believed to be creations of *kiai*, whose role has been integral to their inception. Passed down through generations, this music has been nurtured within the *langgar*, remaining in tune with the rhythms of community life and religious education. Similarly, the art of *kemplang* in Bondowoso owes its growth and dissemination to the efforts of *kiai*, who employed it as a medium for cultural and religious engagement. One prominent figure in the spread of *kemplang* is *Kiai Abdullah*, an early settler and Islamic teacher from Banyuputih Village, Wringin Subdistrict, Bondowoso. His innovative use of *kemplang* for Islamic propagation reflects the seamless integration of cultural expression and religious teachings in the area. Today, the tradition continues to prevail, with several *kiai* actively preserving *kemplang* through activities in village mosques and *langgar*. *Kiai* play a dual role as educators and spiritual leaders, linking the artistic and sacred dimensions of *kemplang* music. Their influence goes beyond teaching, as artists often seek their guidance and blessings (*ngalap berkat*), reinforcing the deep connection between tradition and spirituality, with the *kiai* ensuring the continued vitality of both.

Ultimately, the music of *terbhâng ghendhing* and *kemplang* is intrinsically linked to the spread of Islam in Probolinggo and Bondowoso, emerging in response to the prohibition of metal gamelan by Islamic religious authorities, who deemed it incompatible with religious principles. In overcoming this challenge, the *kiai langghâr* acted as key agents of transformation, introducing a membranophone ensemble that complied with Islamic teachings while preserving the essence of the metal gamelan tradition. This innovation highlights the synthesis of local traditions and religious values, shaped by the creativity and leadership of the *kiai*. As a result, the preservation and adaptation of *terbhâng ghendhing* and *kemplang* demonstrate how such practices have evolved within the particular framework of religious and communal guidance that defines this cultural context.

b. The Adaptation of Gamelan *Ghendhing* in *Terbhâng Ghendhing* and *Kemplang*

The Madurese-Javanese community in the Tapal Kuda (Horseshoe) region has demonstrated remarkable versatility in evolving its artistic traditions, stemming from their integration with external influences in their new environment. Illustrative examples of this adaptation include the emergence of hybrid art forms such as *Al Badar* (a traditional Islamic performance art), Madurese *dangdut*, Madurese *sinetron* (soap operas), *strèkan* (satirical performances), *gending dangdut*, and *glundhângan* (wooden xylophone) (Hidayatullah, 2016, 2017a, 2017b, 2017c, 2019a, 2019b). Such artistic forms reflect how the Madurese community has not only preserved but also creatively reinterpreted its traditions in response to broader cultural and societal shifts.

The musical evolution of *terbhâng ghendhing* and *kemplang* presents a compelling case of reinvention within artistic traditions. The following section examines the means by which these ensembles developed, highlighting the key elements of gamelan music retained for their cultural significance. It also explores the challenges encountered in adapting to new instrumental forms and the strategies employed to overcome them. By analyzing these changes, we can gain deeper insight into the factors that influenced the emergence of these new forms and the cultural and artistic motivations behind their development.

Analysis of *Terbhâng Ghendhing*

The transcription for the instruments *pettèt budi*, *tenggo'*, *dhu' tengnga*, *dhu' adâ'*, *paneros*, *kacèran*, and *lakè'an* utilizes *balungan* notation, a component of the broader *kepatihan* system commonly employed in Javanese gamelan music. This notation system focuses specifically on capturing (*pèghâ'*) the main melody and key rhythmic patterns, which is crucial for analyzing the core musical structure. For the purpose of

this analysis, the system ensures clarity and consistency, particularly as the instruments correspond with specific pitch regions (1, 2, 3, 5, 6, !, @), which remain consistent with the *solfège* system (do, re, mi, so, la, do, re). In analyzing the *kendhâng* and *panembhung* instruments, symbols typically used in *kendang* notation, which represent specific rhythmic patterns and techniques, are applied. Similarly, the transcription for the *jidur* instrument uses symbols commonly associated with gong notation in Javanese gamelan. To fully examine the form and structure of *gending walangkeke'* in the *terbhâng ghendhing* ensemble, the following analysis employs *kepatihan* notation to provide a comprehensive understanding of its musical structure.

Figure 3. Transcription of *Gending Walangkeke'* (Terbhâng Ghendhing)
 Source: Personal Documentation

The figure displays musical notation for *Gending Walangkeke'* (Terbhâng Ghendhing) across three sections: **Half Cycle/Four Elements**, **Approaching one Cycle/Approaching one Beat of a Gong**, and **Repetition**. Each section contains staves for the following instruments: Bk Kendhâng, Tenggo' (2), Dhu' tengnga (3), Jidur, Kendhâng, Panembhung, Pettèt budi (1), Tenggo' (2), Dhu' adâ' (5), Paneros (6), Kacèran (1), Lakè'an (2), and Jidur. The notation uses various symbols (dots, lines, numbers) to represent rhythmic patterns and techniques for each instrument.

Approaching one Cycle/Approaching one Beat of a Gong

Kendhâng	:	o t o t o t t o b b o o o o o b o t o p b b b
Panembhung	:	.....
Pettèt budi (1)	:	..... 1 1
Tenggo' (2)	:	..... 2 2 2 2
Dhu' tengnga (3)	:	..... 3
Dhu' adâ' (5)	:	..... 5
Paneros (6)	:	6 6 6 6 6 6 6 6 6 6
Kacêran (1)	:	i i i i i i i i i i i i i i i i
Lakè'an (2)	:	.....
Jidur	:	..... 4

Back to the Repetition >>

The Transition to the Rangkep Rhythm

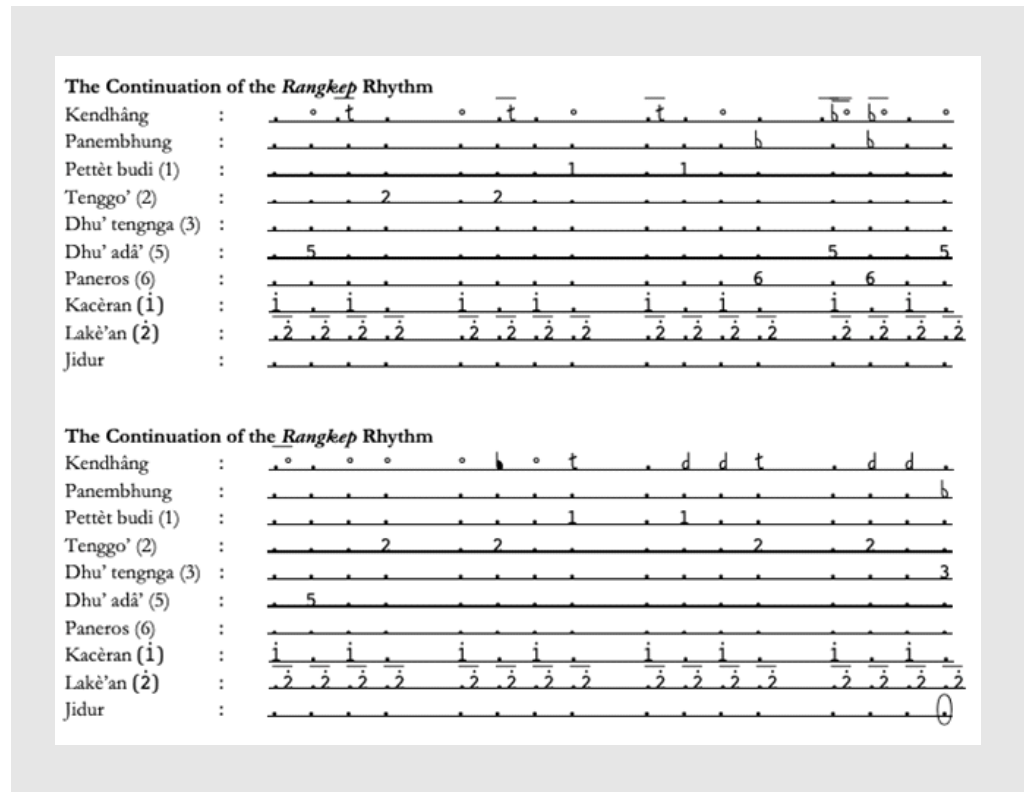
Kendhâng	:	t o o d d d d d b o t d
Panembhung	:	..... b b
Pettèt budi (1)	:	..... 1 1 1
Tenggo' (2)	:	..... 2 2 2 2
Dhu' tengnga (3)	:	..... 3
Dhu' adâ' (5)	:	..... 5
Paneros (6)	:	6 6 6 6 6 6 6 6 6 6
Kacêran (1)	:	i i i i i i i i i i i i i i i i
Lakè'an (2)	:	.....
Jidur	:	..... 4

The Rangkep Rhythm (The Expansion of Beats)

Kendhâng	:	t b b o t o b b o t
Panembhung	:	..... b b
Pettèt budi (1)	:	..... 1 1
Tenggo' (2)	:	..... 2 2 2 2
Dhu' tengnga (3)	:	..... 3 3
Dhu' adâ' (5)	:	.....
Paneros (6)	:	.....
Kacêran (1)	:	i i i i i i i i i i i i i i i i
Lakè'an (2)	:	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Jidur	:	.....

The Continuation of the Rangkep Rhythm

Kendhâng	:	o b b o t o t o b o t
Panembhung	:	..... b b
Pettèt budi (1)	:	..... 1 1
Tenggo' (2)	:	..... 2 2
Dhu' tengnga (3)	:	..... 3
Dhu' adâ' (5)	:	..... 5 5
Paneros (6)	:	..... 6 6
Kacêran (1)	:	i i i i i i i i i i i i i i i i
Lakè'an (2)	:	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Jidur	:	.....



The image contains two musical score transcriptions for 'The Continuation of the Rangkep Rhythm'. Each transcription is a staff-based notation for various instruments.

Continuation 1:

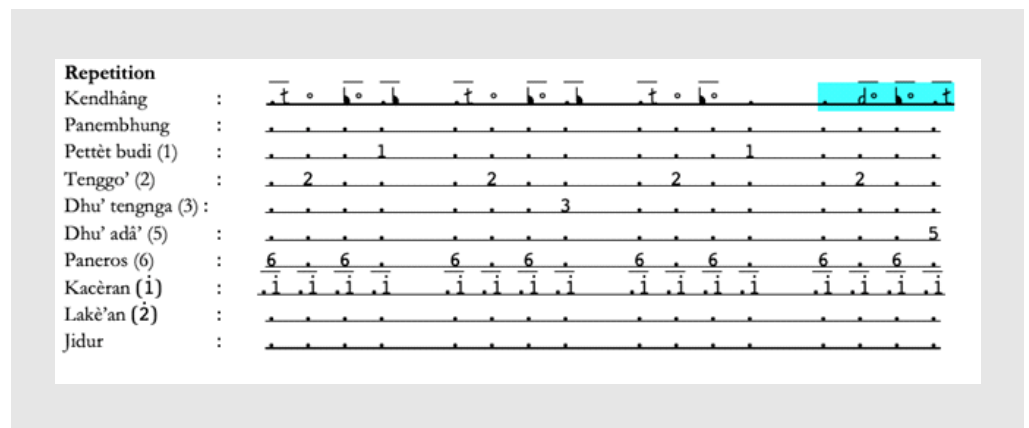
- Kendhâng :** Musical notation with notes and rests, including a final sequence of *b* *h* *h* *o*.
- Panembhung :** Musical notation with notes and rests, including a final sequence of *h* *h*.
- Pettèt budi (1) :** Musical notation with notes and rests, including a final sequence of *1* *1*.
- Tenggo' (2) :** Musical notation with notes and rests, including a final sequence of *2* *2*.
- Dhu' tengnga (3) :** Musical notation with notes and rests, including a final sequence of *3* *3*.
- Dhu' adâ' (5) :** Musical notation with notes and rests, including a final sequence of *5* *5* *5*.
- Paneros (6) :** Musical notation with notes and rests, including a final sequence of *6* *6*.
- Kacèran (1) :** Musical notation with notes and rests, including a final sequence of *1* *1*.
- Lakè'an (2) :** Musical notation with notes and rests, including a final sequence of *2* *2* *2* *2*.
- Jidur :** Musical notation with notes and rests.

Continuation 2:

- Kendhâng :** Musical notation with notes and rests, including a final sequence of *d* *d* *t* *d* *d*.
- Panembhung :** Musical notation with notes and rests, including a final sequence of *h*.
- Pettèt budi (1) :** Musical notation with notes and rests, including a final sequence of *1* *1*.
- Tenggo' (2) :** Musical notation with notes and rests, including a final sequence of *2* *2*.
- Dhu' tengnga (3) :** Musical notation with notes and rests, including a final sequence of *3*.
- Dhu' adâ' (5) :** Musical notation with notes and rests, including a final sequence of *5*.
- Paneros (6) :** Musical notation with notes and rests.
- Kacèran (1) :** Musical notation with notes and rests, including a final sequence of *1* *1*.
- Lakè'an (2) :** Musical notation with notes and rests, including a final sequence of *2* *2* *2* *2*.
- Jidur :** Musical notation with notes and rests, including a final sequence of *2* *2* *2* *2*.

This musical adaptation becomes particularly evident when analyzing the notation above. The structure of this *gending* aligns with the overarching framework of Javanese gamelan music, with its opening marked by a *kendhâng* pattern reminiscent of the *walangkeke'* *h h t h o h h h* style found in Madurese-East Javanese gamelan. Moreover, the *kendhâng* pattern closely mirrors the segments that lead into the *gong* or *seleh*, distinguished by the characteristic resonance of the *jidur* instrument.

Figure 4. Transcription of *Kendhang*
Source: Personal Documentation



The image contains a musical score transcription for 'Repetition'. It is a staff-based notation for various instruments.

Repetition:

- Kendhâng :** Musical notation with notes and rests, including a final sequence of *d* *h* *h* *t* (highlighted in blue).
- Panembhung :** Musical notation with notes and rests.
- Pettèt budi (1) :** Musical notation with notes and rests, including a final sequence of *1* *1*.
- Tenggo' (2) :** Musical notation with notes and rests, including a final sequence of *2* *2*.
- Dhu' tengnga (3) :** Musical notation with notes and rests, including a final sequence of *3*.
- Dhu' adâ' (5) :** Musical notation with notes and rests, including a final sequence of *5*.
- Paneros (6) :** Musical notation with notes and rests, including a final sequence of *6* *6*.
- Kacèran (1) :** Musical notation with notes and rests, including a final sequence of *1* *1*.
- Lakè'an (2) :** Musical notation with notes and rests.
- Jidur :** Musical notation with notes and rests.

Approaching one Cycle/Approaching one Beat of a Gong

The figure shows a musical score for several instruments. The first line, 'Kendhâng', is highlighted in cyan and contains a sequence of rhythmic symbols: a series of dots, followed by 't', 'o', 't', 't', 't', 't', 'b', 'b', 'o', 'o', 'o', 'o', 't', 'o', 'p', 'b', 'b', 'b'. Below this are lines for 'Panembhung', 'Pettèt budi (1)', 'Tenggo' (2)', 'Dhu' tengnga (3)', 'Dhu' adâ' (5)', 'Paneros (6)', 'Kacèran (1)', 'Lakè'an (2)', and 'Jidur'. Each instrument has a corresponding rhythmic pattern of dots and numbers (1, 2, 3, 5, 6) indicating the timing of its notes.

Notice the highlighted portion in the figure above, where the *kendangan* pattern mirrors that of the East-Javanese *kendangan*. This particular pattern is consistently played in conjunction with the *gong* or *seleh*. In East Javanese music, this is referred to as *sabetan* and is commonly employed in *alit-tengahan gendings*. It functions as a *kendhâng* pattern that cues the gong's entry, fulfilling the role as an *ater-ater* (prelude) to the gong *seleh*. Furthermore, the *kendhâng* transition into the *rangkep* rhythm includes a cue that closely parallels the *kendangan* pattern in Jawatimuran *karawitan*. This pattern, known as *ngembat*, introduces a brief tempo reduction, serving as a prelude to the rhythmic shift.

Figure 5. Transcription of *Kendhâng Irama Rangkep*
 Source: Personal Documentation

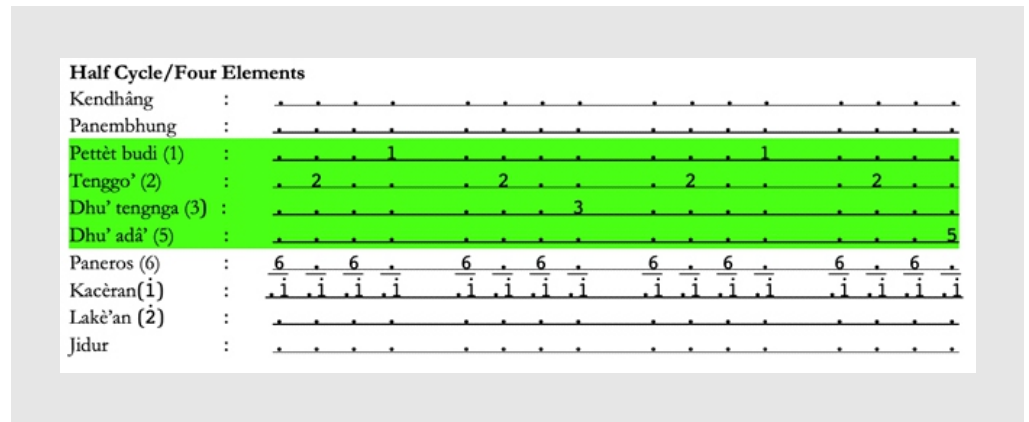
The Transition to the *Rangkep* Rhythm

The figure shows a musical score for two instruments. The first line, 'Kendhâng', is highlighted in cyan and contains a sequence of rhythmic symbols: a series of dots, followed by 't', 'o', 'o', 'd', 'd', 'dd', 'dd', 'b', 't'. Below this is a line for 'Panembhung' with a rhythmic pattern of dots and 'b' symbols.

The most striking form of gamelan adaptation in *terbhâng ghendhing* is seen in the performance of the four tuned *terbhâng* instruments: *pettèt budi*, *tenggo'*, *dhu' tengnga*, and *dhu' adâ'*. These instruments replicate the role of *balungan* melody in metal gamelan ensembles. In traditional metal gamelan, the *balungan* instruments form the skeleton of the music, serving as the structural foundation. In *terbhâng ghendhing*, this same role is fulfilled by the four *terbhâng* instruments. However, unlike the continuous sound of metal gamelan, the melody in *terbhâng ghendhing* is played alternately, as each *terbhâng* can produce only a single note at a time.

Figure 6. Transcription of *Terbhâng Pettèt Budi, Tenggo', Dhu' Tengnga, and Dhu' Adâ'*

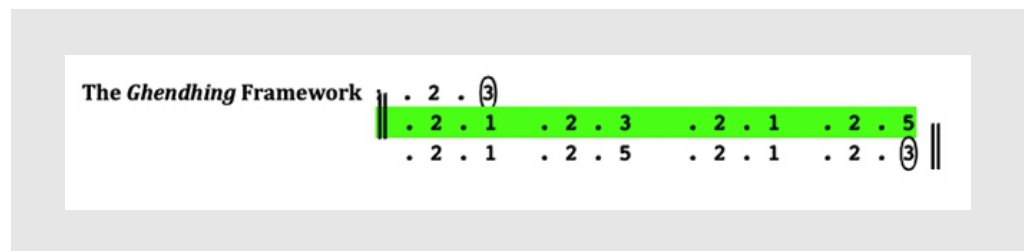
Source: Personal Documentation



Examining the highlighted section in the figure above, it becomes evident that in cadence one, the four *terbhâng* instruments alternately play the *balungan* melody, thus forming the skeleton of the music (half cycle/four-measure *gatra*). To fully grasp the structural framework of *gending walangkeke'*, a detailed description of its notation follows.

Figure 7. Framework of *Gending Walangkeke' (Terbhâng Ghendhing)*

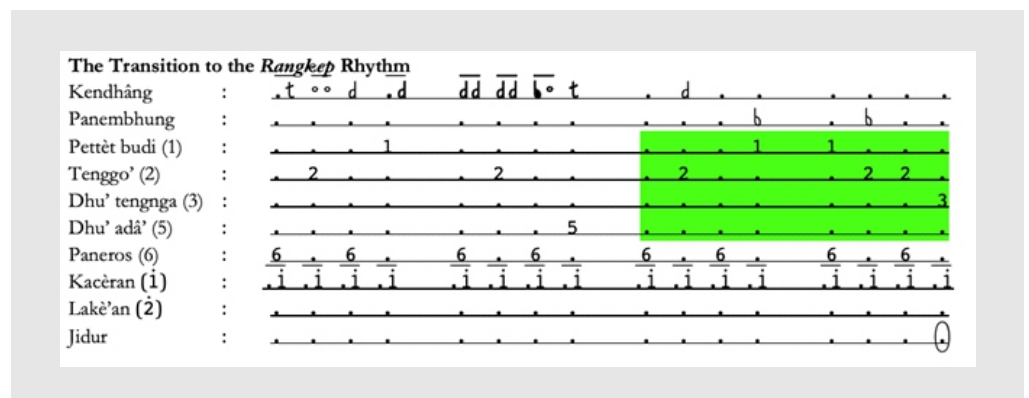
Source: Personal Documentation

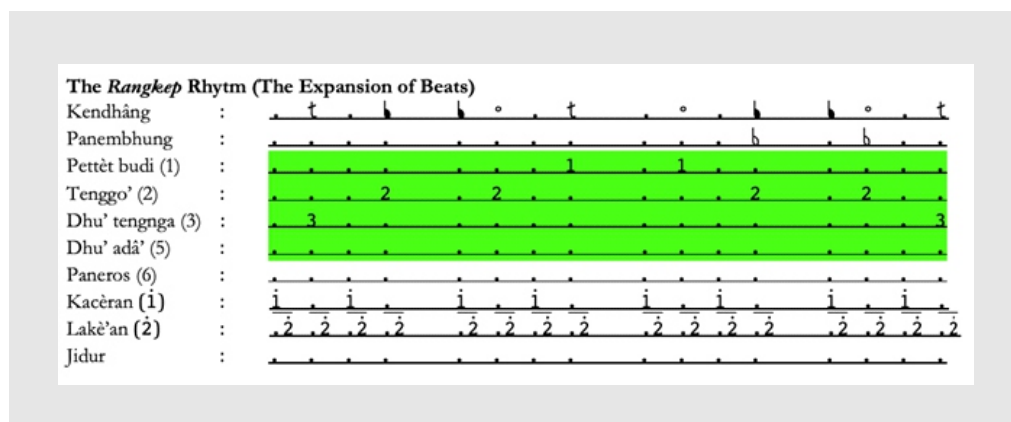


However, in the double rhythms (*rangkep*), the four *terbhâng* instruments play each tone twice, employing a double stroke. This stroke begins at the transitional part of the rhythm—as seen in the fourth *gatra* in the figure—and is consistently applied throughout the *rangkep* rhythm, reinforcing the polyrhythmic structure.

Figure 8. Transcription of *Irama Rangkep*

Source: Personal Documentation

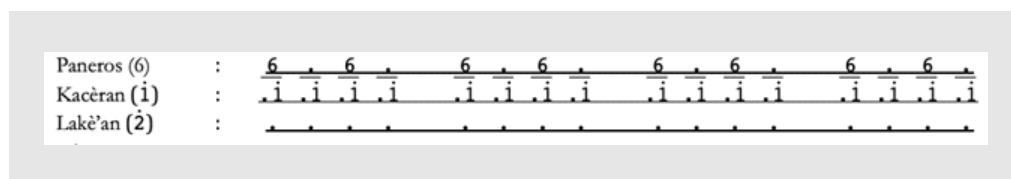




The *rangkep* double stroke emerged as a result of the transition from metal to membranophone instruments. In metallic gamelan, an instrument can sustain a single tone, whereas in membranophones such as *terbhâng ghendhing*, the tone is brief, lacking the capacity for sustained resonance. As a result, musicians employ a denser playing technique—the *rangkep* double stroke—to prolong the sound, compensating for the limited duration of the tone.

Concerning the *paneros*, *kacèran*, and *lakè'an* instruments, parallels can be drawn with gamelan traditions, fulfilling a similar role to that of the *bonang babok* and *bonang penerus* in gamelan, thereby preserving the rhythmic structure. In gamelan, the *bonang*'s playing pattern is characterized by an interlocking arrangement between the *bonang babok* and its successor, a structure that finds resonance in the *gending walangkeke'*. Here, the three instruments assume distinct musical roles. In the first rhythm (*lamba*), the *paneros* and *kacèran* instruments adopt the *bonang*'s role, while the *lakè'an* instrument remains inactive until its designated entry in the performance.

Figure 9. Transcription of *Paneros* and *Kacèran* Instruments
 Source: Personal



This rhythmic structure bears a strong resemblance to the *kobyò'an* technique in East Javanese gamelan, where the *bonang* pattern is faithfully mirrored in the *terbhâng ghendhing*. Within this framework, the *paneros* assumes the role of the *bonang babok*, while the *kacèran* takes on the function of the *bonang penerus*. As the rhythm transitions into the *rangkep* pattern, the performance undergoes a distinct transformation, introducing new layers of complexity and altering its dynamic interplay.

Figure 10. Transcription of
Kacèran and *Lakè'an*
Instruments
Source: Personal
Documentation

The image shows a musical notation transcription for three instruments: Paneros (6), Kacèran (1), and Lakè'an (2). The notation is presented on three staves. The top staff, for Paneros (6), consists of a single horizontal line with six vertical tick marks. The middle staff, for Kacèran (1), shows a sequence of notes: a quarter note with a dot above it, followed by a quarter note with a dot below it, and then a series of eighth notes with dots above and below them. The bottom staff, for Lakè'an (2), shows a sequence of eighth notes with dots above and below them. The notation is arranged in a way that suggests a rhythmic pattern where the instruments play in a specific sequence and timing.

When the *bonang* playing pattern is executed by the *paneros* and *kacèran* instruments in the first *lamba* rhythm, it is then assumed by the *lakè'an* and *kacèran* instruments in the *rangkep* rhythm. This shift in instrumentation reflects the change in the *rangkep* rhythm, which involves a doubling of the previous rhythm's beat and thus a faster tempo. This requires a consistently played interlocking pattern that serves as a clear tempo keeper. To ensure the pattern is distinctly discerned, the sound of instruments with a higher pitch frequency is necessary, as it allows the interlocking structure to be clearly audible and maintain rhythmic clarity.

Furthermore, the *jidur* instrument, which appears in the first *lamba* rhythm and transitions into the *rangkep* rhythm, serves a role akin to that of the *gong* in metal gamelan. In both instances, the instrument is played at the beginning and end of the musical cycle, marking the commencement and conclusion of the performance. Notably, there is no alteration in the beat when transitioning between rhythms, reinforcing the *jidur*'s function in the *terbhâng ghendhing* ensemble as a stabilizing element within the rhythmic structure.

As discussed earlier, the adaptation of gamelan to *terbhâng ghendhing* has brought about a range of musical transformations, driven by the reallocation of instruments, though certain elements have been preserved and remain fundamental to the music. Among the retained elements from metal gamelan are the *kendang* patterns, the *balungan* framework, and the *bonang* and *gong* patterns. Additionally, the *kèjhungan* vocals, a defining characteristic of the music, are preserved in the rendition of *gending walangkeke'*, executed in a manner consistent with their treatment in metal gamelan.

Analysis of *Kemplang*

The following analysis of the *kemplang* ensemble examines the performance of *gending walangkeke'*, focusing on the rendition by the Sumber Batu Lawang *kemplang* group in Banyuputih, Wringin, Bondowoso, on June 13, 2024. It is important to note that each *kemplang* musician typically produces two tones—derived from two separate membranes on each instrument. During the performance by Sumber Batu Lawang, each musician takes on the challenge of playing four instruments simultaneously, demonstrating a high level of skill and coordination. The instruments

are arranged to generate six distinct notes from the *slendro* scale, addressing the challenge of limited musicians by allowing one performer to assume multiple roles. The following documentation of the *kemplang* ensemble highlights this innovative approach.

Figure 11. Ensemble Format of *Kemplang* Sumber Batu Lawang
Source: Personal Documentation



The photo above depicts the arrangement of the Sumber Batu Lawang *kemplang* ensemble: on the front right, a musician plays the *pangotèran*; in the center, another musician plays four instruments simultaneously—*gendong*, *panengah*, *penanggul*, and *pettèt*; on the front left, a set of *kendhâng* drums is played; and at the back, musicians play the *jidur* and tambourine. In the analysis section below, the notations for the *gendong*, *panengah*, *penanggul*, and *pettèt* instruments will be consolidated into a single instrument called *kemplang* to streamline the reading process.

The notation for the *kemplang* and *pangotèran* instruments have been transcribed using the *gender* notation system, characterized by a top and bottom arrangement. The upper notation represents the part played by the right hand, while the lower notation corresponds to the part played by the left hand. For this analysis, the basic tonality of *kemplang* has been aligned with tone 1 (or do), corresponding to the pitch range (1, 2, 3, 5, 6, 1) or (do, re, mi, so, la, do). In the transcription of the *kendhâng* instrument, standard symbols for *kendang* notation in Javanese gamelan are employed. The notation for the *jidur* instrument follows the symbols typically used for gong marks in Javanese gamelan notation. *Gending walangkeke'* in the *kemplang* ensemble is performed using only a single rhythm, a distinct approach compared to the *terbhâng ghendhing* ensemble, where two types of rhythm—first rhythm and *rangkep*—are employed. To further elucidate the form and structure of *gending*

walangkeke' in kemplang, the following provides a detailed description of its presentation using kepatihan notation.

Figure 12. Transcription of Gending Walangkeke' (Kemplang)
Source: Personal Documentation

The Opening of the *Ghendhing*

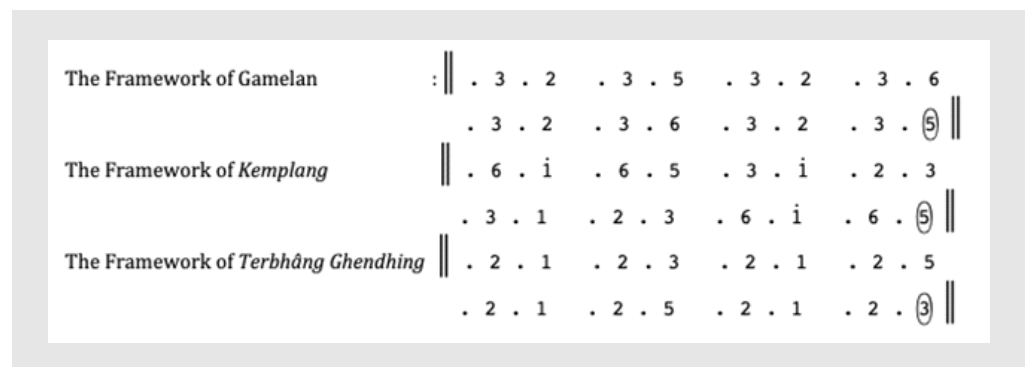
Rhythm 1

Based on the transcription above, such musical adaptation becomes increasingly evident. In the opening section, *walangkeke'* music typically begins with the *kendhâng* drum, as is customary in both gamelan and *terbhâng ghendhing* ensembles. However, in the *kemplang* ensemble, the opening of the gending is carried out by the *kemplang* instruments. In this *kemplang* ensemble, *gending walangkeke'* is performed using a

single *irama* (rhythmic pattern), unlike the *terbhâng ghendhing* ensemble, which employs two distinct *irama* types: *irama one* and *rangkep*.

The *kemplang* instrument, as the sole pitched instrument in the ensemble, does not adhere to the traditional musical framework found in a *terbhâng ghendhing* ensemble. Rather than performing the *balungan* patterns that serve as the structural foundation in gamelan, the *kemplang* instrument explores a broad array of melodic patterns, which are derived from the vocal melody of the *kèjhung*. When analyzed in relation to the final note in each *gatra*, the melodic patterns of the *kemplang* instrument effectively form the framework of the music. From a broader compositional standpoint, notable differences in pitch can indeed be distinguished between those used in gamelan and those in *terbhâng ghendhing*. The following is a comparative analysis.

Figure 13. Comparison of Gending Frameworks
 Source: Personal Documentation



Based on the figure above, it is evident that the framework of *gending walangkeke*' in both gamelan and *terbhâng ghendhing* ensembles resemble each other, despite differences in notation. The form and pattern (arrangement of notes) remain consistent across both. In contrast, the *kemplang* ensemble introduces a shift in tone pattern. However, when considering the overall form of the music, the two can still be regarded as fundamentally the same.

This difference derives from several factors, primarily as a consequence of the translation process itself. As Amjari, musician and *tokang pèghâ'* *ghendhing* of the *Kemplang Sumber Batu Lawang rombongan* (Interview on January 5, 2023, in Banyuputih, Wringin, Bondowoso) explains, he reinterpreted the performance of *pèghâ'* music through the use of gamelan cassette recordings as his reference. This process is inherently subjective, as each *tokang pèghâ'* (re-interpreter) may perceive and transform the "sound image" from the same gamelan *gending* reference, influenced by varying interpretative perspectives and adaptation techniques. Thus, it is not surprising that variations occur throughout the translation process. The second

factor pertains to performance techniques. In the *kemplang* ensemble, the arrangement of *gending walangkeke'* emphasizes variations in vocal melodies, which are subsequently applied to the playing of the *kemplang* instruments. In contrast to the *terbhâng ghendhing* ensemble, *kemplang* does not prioritize the formation of a *gending* framework.

Upon closer inspection, the drum technique frequently used on *kemplang* instruments involves a repetitive beat pattern, where a single tone is produced through multiple strikes. This approach mirrors that of the *terbhâng ghendhing* ensemble, which compensates for the limitations of the membrane medium—incapable of sustaining long tones—by using repetitive strikes. Similarly, the *kemplang* ensemble adopts this technique to overcome the limitations resulting from the reallocation of metallic instruments to drums, whereas traditional gamelan instruments, being metallic, produce longer resonant tones due to their ability to sustain sound.

The similarities between the *gending walangkeke'* in the *kemplang* and gamelan ensembles are evident in the *kèjhungan* lyrics sung by the *tokang kèjhung*, which both confirm that the *gending* being performed is *walangkeke'*. Additionally, when examining the melodic structure of the *kèjhungan* in both ensembles, it is clear that they share the same foundational pitch set. Below is a comparison of the *kèjhung* in both the *kemplang* and gamelan ensembles (Transcription of the gamelan performance at Avalokitesvara Vihara, Pamekasan, on June 25, 2024).

Figure 14. Comparison of *Kèjhung* in Gamelan and *Kemplang*
 Source: Personal Documentation

The Notation of *Kèjhungan Walangkeke'*

<p>• • $\overline{.5}$ 6 • $\overline{5}$ 6 $\overline{1}$ <i>Wa-lang ke - ke'</i> <i>Ser-ke - se - ran</i></p> <p>• • • • 5 6 5 $\overline{1}$ <i>Wa-lang ke - ke'</i> <i>Ser- ke - se - ran</i></p> <p>• • 3 $\overline{2}$ $\overline{1}$ $\overline{3}$ $\overline{2}$ 1 <i>Nya - re du - it</i> <i>Jeng - la - je - ngan</i></p> <p>• • 3 $\overline{2}$ $\overline{1}$ $\overline{3}$ $\overline{2}$ 1 <i>Nya - re du - it</i> <i>Jeng - la - je - ngan</i></p>	<p>• • 5 6 • $\overline{5}$ 3 5 <i>wa-lang ka - dung</i> <i>o - bi ma - nis</i></p> <p>• • 5 6 • $\overline{5}$ 3 5 <i>wa - lang ka - dung</i> <i>o - bi ma - nis</i></p> <p>• • • 2 3 5 6 3 <i>tak nang-ghung nang-ghung</i> <i>da - un - na - nang - ka</i></p> <p>• • • 2 3 5 6 3 <i>tak nang-ghung nang-ghung</i> <i>da - un - na - nang - ka</i></p>
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Kejhungan Walangkeke' of the Madurese Gamelan Version

. . . .	5 3 2 3	1 .	11 22	.3 52	. 3
	Wa- lang ke-kek		ani- ko ma'	ghen-dingan -	na
. . . .	3 5 6 1	. 2	. 5	6 35	.5 .
	Nga-to- ran-na		dhe'	ka tare -	tan
. . . .	5 5 5 1	11 . .	.5	55 53	.5 5
	A -mi' ba - da	kaula	ka -	sala- han e -	pon
. . 3 2	3 53 2	1 .1 2 3	.6	.6 16	5 3
	Sa - sa - re -	ngan ka - u - la	nyo' -	on sa - po -	ra

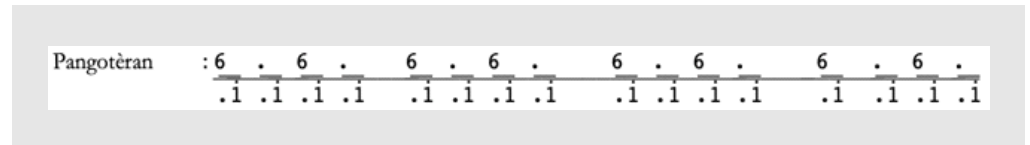
It is evident that every two gatra or half-units of *kèjhungan* consistently contain tone one (1), and the same applies to the final note of each unit. Another important aspect to consider is the melodic structure of *kèjhungan*. *Kèjhungan walangkeke'* in *kemplang* is characterized by a repetitive and uniform pattern, while *kèjhungan* in Madurese gamelan displays greater melodic variation. Another key aspect to examine is the melodic structure of *kèjhungan*. In *kemplang*, the *kèjhungan walangkeke'* follows a repetitive and consistent pattern, whereas in Madurese gamelan, *kèjhungan* tends to stretch or deviate from the expected rhythm, recognized as *gandul* characteristics. Additionally, the delivery method differs, with *kèjhungan* in *kemplang* adhering to a more metric structure in line with the music's tempo, while in gamelan, it often exhibits a more flexible, elastic phrasing.

It is evident that every two gatra or half-phrases of *kèjhungan* consistently contain tone one (1), and the same applies to the final note of each unit. Another important aspect to consider is the melodic structure of *kèjhungan*. In *kemplang*, the *kèjhungan* is delivered metrically, aligning with the tempo of the music, whereas in Madurese gamelan, it often exhibits elasticity, stretching or delaying the expected rhythm, a characteristic known as '*gandul*.'"

Additionally, the *pangotèran* in the *kemplang* ensemble plays a pattern identical to that of the *paneros* and *kacèran* in the *terbhâng ghendhing* ensemble. As a crucial tempo keeper, the *pangotèran* fulfills a function similar to that of the *bonang babok* and *bonang penerus* in gamelan. However, a key distinction lies in the distribution of these roles: in the *terbhâng ghendhing* ensemble, the tempo-keeping responsibility is split between two instruments, each played by a different musician, whereas in the

kemplang ensemble, the *pangotèran* assumes both roles, played by a single musician. In this capacity, the *pangotèran* performs repetitive segments, as detailed below.

Figure 15. Transcription of *Pangotèran* Instruments
 Source: Personal Documentation



The *jidur* instrument, placed at the end of each musical phrase (every four gatra), complements the rhythmic pattern set by the *kendhâng*. At the conclusion of each musical unit, the *kendhâng* provides a purposeful pause, creating space for the *jidur* to punctuate and complete the rhythmic cycle. Additionally, the *jidur* functions in a manner akin to the gong in metal gamelan, signaling both the beginning and end of the musical cycle. As such, the role and performance pattern of the *jidur* in the *kemplang* ensemble differ from those in the *terbhâng ghendhing* ensemble.

5. Discussion

Based on the analysis, which uncovers a range of musicological insights, we gain a deeper understanding of the *pèghâ'* process and its execution by the musicians of both the *terbhâng ghendhing* and *kemplang* ensembles. This examination illuminates both what is “grasped” (*pèghâ'*), or rather, what is retained as central to the adaptation process. Furthermore, the findings highlight the changes resulting from the reallocation of instruments, transitioning from metal to membrane. The following summary outlines the roles and functions of each membranophone in the adaptation of gamelan music, particularly in the performance of *gending walangkeke'* by the *Sumber Jaya rombongan* of the *terbhâng ghendhing* ensemble.

Table 1. Adaptation of *Terbhâng Ghendhing*
 Source: Personal Documentation

No	Instrument Name	Instrument Role/Reallocation from Gamelan Instrumen	
		Rhythm One	Rhythm Rangkep
1.	<i>Kendhâng dan Panembhung</i>	- Opening the <i>ghendhing</i> - Reallocation of <i>pukulan kendhâng</i>	- Reallocation of <i>pukulan kendhâng</i>
2.	<i>Pettèt Budi</i>	- Executing the framework of <i>ghendhing balungan</i>	- Executing the framework of <i>ghendhing</i> with double rhytems (<i>rangkep</i>)/ <i>balungan</i>
3.	<i>Tenggo'</i>		
4.	<i>Dhu' Tengnga</i>		
5.	<i>Dhu' Adâ'</i>		
6.	<i>Paneros</i>	- Executing the interlocking <i>bonang</i> pattern	- Executing variation of the <i>ghendhing</i> melody
7.	<i>Kacèran</i>	- (not used)	- Executing the interlocking <i>bonang</i> pattern
8.	<i>Lakè'an</i>		
9.	<i>Jidur</i>	- Indicating the beginning and end of the <i>ghendhing</i>	
10.	<i>Kèjhung</i>	- Executing melodic patterns close to the <i>kèjhung</i> singing style in gamelan	

In the *terbhâng ghendhing* ensemble, the reallocation process is closely aligned with the formation of the *balungan* musical framework, characterized by the cyclical melodic patterns performed by the *pettèt budi*, *tenggo'*, *dhu' tengnga*, and *dhu' addâ'* instruments. These instruments closely mimic the structure of the *balungan* framework found in metal gamelan. The *ghendhing* structure is further reinforced by the *jidur* instrument, which functions similarly to the gong in gamelan, marking both the beginning and end of the musical cycle. In the *terbhâng ghendhing* ensemble, the *kendhâng* and *panembhung* instruments replicate drumming patterns from East Javanese gamelan, particularly concerning the opening sections and rhythmic transitions. The *paneros* and *kacèran* instruments emulate the *bonang* pattern of gamelan during the first cadence, while the *kacèran* and *lakè'an* instruments perform this function in the *double rangkep* rhythm. The *kèjhung* performed in this ensemble is drawn from the Madurese gamelan tradition, specifically reflecting the sung vocal practices of Pamekasan and Sumenep.

While similar to the *terbhâng ghendhing* ensemble, the *kemplang* ensemble presents its own distinct characteristics in terms of adaptation. The following chart outlines the role and function of each membrane instrument in the performance of *gending walangkeke'* by the Sumber Batu Lawang *kemplang* ensemble.

Table 2. Adaptation of *Kemplang*
 Source: Personal Documentation

No	Instrument Name	Instrument Role/Reallocation from Gamelan Instrumen
1.	<i>Kendhâng</i>	- Reallocation of the <i>pukulan kendhâng</i>
2.	<i>Gendong</i>	- Execution of opening the <i>ghendhing</i>
3.	<i>Panengah</i>	- Execution of a variation of melodies developed from the <i>ghendhing/kèjhung</i> vocals
4.	<i>Penanggul</i>	- Execution of repetitive beat techniques to overcome the limitation of the membrane instrument which cannot sustain long duration
5.	<i>Pettèt</i>	- Execution of repetitive beat techniques to overcome the limitation of the membrane instrument which cannot sustain long duration
6.	<i>Pengotèran</i>	- Execution of the interlocking <i>bonang</i> patterns
7.	<i>Jidur</i>	- Marking the beginning and end of the <i>ghendhing/gong</i> cycles - Completing the rhythmic pattern of the <i>kendhâng</i> instruments
8.	<i>Kèjhung</i>	- <i>Kèjhung</i> is metrical (according to tempo)

The following chart presents a comparison of the musical styles of *terbhâng ghendhing* and *kemplang*—both adaptations of metal gamelan music—through a musicological analysis of the presentation of *gending walangkèkè'*.

Table 3. Comparison of *Terbhâng Ghendhing* and *Kemplang* Adaptations
 Source: Personal Documentation

<i>Terbhâng ghendhing</i>	<i>Kemplang</i>
Adaptation approach oriented towards the (<i>balungan</i>) <i>gending</i> framework	Adaptation approach oriented towards <i>kèjhung</i> vocal melody
Maintains the <i>bonang</i> interlocking patterns, whose repetition serves as a tempo driver	Maintains the <i>bonang</i> interlocking patterns, whose repetition serves as a tempo driver
Development of <i>irama</i> patterns as in gamelan	No development of <i>irama</i> patterns
<i>Kèjhung</i> approaches the style of gamelan, though limited as it must align with the characteristics of membranophone instruments (which cannot sustain long tones)	<i>Kèjhung</i> is metrical (according to tempo), influenced by the performance style of <i>kemplang</i> , which is characterized by dense, repetitive melodic patterns
<i>Gending</i> compositions can only be performed with a full ensemble	<i>Gending</i> compositions can be performed in a minimalist ensemble (<i>kendhang</i> , <i>pangotèran</i> , <i>kemplang</i> , and <i>jidur</i>). A single musician can execute four <i>kemplang</i> instruments simultaneously

Overall, the analysis of these charts and notations summarizes the key aspects of the *kemplang* ensemble's adaptation process, highlighting the development and integration of *kèjhung* vocal melodies into the performance of instruments such as the *gendong*, *panengah*, *penanggul*, and *petèt*. While the *terbhâng ghendhing* ensemble centers on the formation of a *balungan* framework, the *kemplang* ensemble prioritizes the vocal melody as its primary focus. Despite these differences in structural approach, the core form and organization of the music remain consistent between the two ensembles. A notable feature of the *kemplang* ensemble is its dense execution of melodies, often characterized by the repetition of notes, which stems from the shift to membranophones—unlike metal instruments, these cannot sustain long tones. In addition, the *kemplang* ensemble replicates drumming patterns found in gamelan, with the *pangotèran* emulating the *bonang* pattern. The *jidur* instrument fulfills a dual role, similar to the gong in metal gamelan, marking both the beginning and end of the musical cycle. Lastly, the *kèjhung* vocals in the *kemplang* follow a metrical structure, supporting the ensemble's rhythmic precision.

Pèghâ' thus serves as a testament to the interplay between tradition and innovation. Through the musicians' sensitivity, skill, and imagination, this process fosters the creation of new musical forms while maintaining a strong connection to gamelan heritage. These adaptations not only demonstrate the musicians' ability to breathe new life into tradition but also underscore how local creativity drives musical evolution, shaping a tradition that remains both enduring and adaptive.

6. Conclusion

The phenomenon of *pèghâ'* within the traditions of *terbhâng ghendhing* and *kemplang* reflects a creative innovation grounded in the effort to preserve gamelan music amidst the discourse surrounding the prohibition of metallic instruments. Through this adaptation, local musicians have skillfully preserved key elements of gamelan, such as the *kèjhung*, *kendangan* patterns, *bonang* patterns, musical structure, and melodic

forms. Nevertheless, the shift from metal to membrane instruments has brought about significant transformations in playing techniques, timbre, and musical dynamics. The resulting playing style is marked by increased repetition, an energetic *rancak* tempo, and heightened dynamism, adapting to the inherent limitations of membranophones, which cannot sustain long tones.

The musical structure of gamelan, including the *balungan* framework and core rhythmic patterns, has been preserved throughout the reallocation process. However, certain elements, such as pitch duration and playing style, were significantly altered due to the limitations of membranophone instruments. Where the sustained tones of the metallic gamelan once prevailed, denser and more repetitive melodic patterns have emerged. Although the rhythmic structures in *terbhâng ghendhing* and *kemplang* continue to follow the interlocking principle of the bonang, they are now performed with more intense and repetitive percussive techniques. This seeks to mitigate the loss of tonal sustain in the membranophones, resulting in a unique and dynamic sound profile.

Pèghâ' is a cultural-musical concept that “captures” the essence of gamelan sounds, encompassing the aesthetic qualities of melody, instrumental harmony, and the rhythmic dynamics. This process reflects the perceptive acuity of musicians as they reinterpret gamelan elements through the medium of reallocated instruments. Through this adaptation, new artistic and musical identities emerge, while still rooted in the foundational principles of gamelan tradition. This transformation gives rise to aesthetic distinctions between the 'original' gamelan reference and its adaptation, re-shaping the perception and values associated with *gending*.

This research challenges the traditional view of membranophones, which are often confined to the role of purely rhythmic instruments. In the context of *terbhâng ghendhing* and *kemplang*, membranophone instruments serve as a conduit for intricate and harmonious melodies, complementing the musical structures traditionally fulfilled by metal instruments. This suggests that the functionalities of musical instruments should not be rigidly defined, but rather considered in relation to the specific cultural and practical contexts in which they are employed.

Pèghâ' processes demonstrate how traditional music is not a static form, but a dynamic entity that can evolve in response to social and cultural shifts. This phenomenon reveals that adaptation is not merely a reaction to external pressures, but also a means of fostering new avenues for innovation and preserving traditions. This study offers valuable insights into how musical traditions can endure and flourish, sustained through transformations that honor and uphold cultural heritage.

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