INNOVATIVE APPROACHES TO MELODIC ELABORATION
IN CONTEMPORARY TABUH KREASI BARU

by

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B.A., Pitzer College, 2003

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS

in

THE FACULTY OF GRADUATE STUDIES

(Music)

THE UNIVERSITY OF BRITISH COLUMBIA

August 2007

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ABSTRACT

The following thesis has two goals. The first is to present a comparison of recent theories of Balinese music, specifically with regard to techniques of melodic elaboration. By comparing the work of Wayan Rai, Made Bandem, Wayne Vitale, and Michael Tenzer, I will investigate how various scholars choose to conceptualize melodic elaboration in modern genres of Balinese gamelan. The second goal is to illustrate the varying degrees to which contemporary composers in the form known as Tabuh Kreasi are expanding this musical vocabulary. In particular I will examine their innovative approaches to melodic elaboration. Analysis of several examples will illustrate how some composers utilize and distort standard compositional techniques in an effort to challenge listeners’ expectations while still adhering to indigenous concepts of balance and flow. The discussion is preceded by a critical reevaluation of the function and application of the western musicological terms polyphony and heterophony.
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ACKNOWLEDGEMENTS

I would like to take this opportunity to thank everyone that has supported and mentored me over the years. Without them this thesis would not have been possible. First and foremost I want to thank my parents whose patience and understanding gave me the freedom to stumble serendipitously into the gamelan world. Bill Alves, Julie Simon and Katherine Hagedorn are the people who first introduced me to gamelan and gave me my first ecstatic performance experiences. My first gamelan teacher, I Nyoman Wenten, gave me room to grow at my own pace, which in turn allowed me to develop secure and slow-cooked sort of love for Balinese music. The bonds I made that first fateful summer in Bali sealed the deal and set the course for these years and all years to come. Sabrina, Chandi, Paddy and Sanggar Cudamani made that possible. In Vancouver, Michael Tenzer and I Wayan Sudirana are both incredible mentors who further instilled in me the idea that Balinese gamelan is not a music. It’s a lifestyle. You both possess an uncanny brilliance and I am humbly grateful for the time I’ve spent studying with you. The Bali lifestyle in Vancouver, CA would not have been possible without my colleagues and drinking partners, Paddy, Maisie, Leslie, and Deirdre. Lastly, I want to thank Shoko for trying (albeit unsuccessfully) to keep me sane during the writing process. Her efforts were valiant, however unsound her means. PS Tanah Goreng is not a food group.
Chapter 1: Introduction, and Methodology

Introduction

The following thesis is a historical and analytical investigation of contemporary approaches to melodic elaboration in instrumental compositions for Balinese gamelan. Specifically, I will be dealing with a sub-genre of Balinese music commonly referred to as Tabuh Kreasi\(^1\). The analysis focuses contemporary pieces composed within the last fifteen years. Over the course of my analysis, I focus on compositional techniques that composers use to consciously develop and reinterpret normative approaches to elaboration. In order to do so, I will draw on a number of analytical models from both western music theory and ethnomusicology. This necessitates a brief overview of discourse surrounding the analysis of non-Western musics so that we may be aware of the advantages and dis-advantages of each type of approach. I will also deal at some length with the musicological terms polyphony and heterophony and discuss their varying degrees of applicability to these innovations.

Some readers may find fault in my desire to engage such terminology at all. It's true that whispers of such comparisons have easily and understandably drawn criticism from cultural relativists and western music theorists alike. For cultural relativists, the imposition of these non-indigenous categories may stink of euro-centrism, while western music theorists may be quick to find inconsistencies regarding the finer aspects of such terminology when applied to non-western music.

I have chosen to engage these terms for two reasons: Since my earliest encounters with Indonesian music (undergrad world music classes, introductory readings, lecture

\(^1\) Tabuh is a general term referring to compositional form in lelambatan repertoire, while kreasi may be an adaptation of the Dutch term, creatie (McGraw 2005: 4).
demos, etc) I have been told that heterophony is “basic to the Indonesian gamelan.”
(Cooke 2007). As I will argue later, the creation of this category implies a culturally
biased assumption that Indonesian music is fundamentally less complex than western
music in that Indonesian music is conceptually reducible to one melodic line while
prevailing interpretations of western tonal music reduce it to at least two. Lately, a few
scholars working on Javanese music have taken issue with the term heterophony, but in
Balinese music scholarship the concept of heterophony has not been so refined. Also, I
have found in the course of my research, relationships between melodic instruments
(particularly in contemporary Tabuh Kreasi) that are more aptly described as polyphonic
or contrapuntal rather than heterophonic.

I should clarify that I am NOT saying the composers themselves conceptualize
these relationships polyphonically. During my interviews, not one composer expressed
any overt interest in the western concepts polyphony or heterophony. In general, the
composers are merely seeking new melodic and orchestrational possibilities that are
rooted within traditional Balinese concepts of melody and composition.

My analysis is primarily inspired by the work Tenzer and Agawu (both 2006), and
incorporates some cognitive concepts laid out in Perlman (2004: 13-28). The analysis
makes use of current models from Western music theory and ethnomusicology. In all
cases, I have tried to base my analysis around indigenous concepts of melody as well as
indigenous concepts of melodic quality in order to lend the analysis an appropriate degree
of cultural currency. More specifically, I use Tenzer’s method of contour analysis (2000:

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2 Even Schenker’s *Urlinie* (fundamental line), refers to the upper voice of a composition and is always
accompanied by the bass progression I-V-I. Thus, western tonal music is minimally reducible to two
distinct melodic lines (scale degrees 3-2-1 in the upper voice paired with scale degrees 1-5-1 in the lower)
(Forte 1959: 8).

3 see Brinner 2001 and Perlman 1993 and 2004.
184-189), as well as methods of grouping and theories of generative rhythm from Lerdahl and Jackendoff (1983: 13-17, 30-37, 43-55). Increases in melodic independence and increased frequency of simultaneously sounding intervals between parts that are internally (horizontally) cohesive (other than the standard ngempat or "Balinese fourth") will be discussed in terms of polyphony and counterpoint.

Awareness of Tabuh Kreasi's musical peers and cultural antecedents are critical to understanding its stylistic conventions. First I must locate Tabuh Kreasi as precisely as possible within the densely inhabited matrix of new music in Bali and discuss its often incestuous relationship with other contemporary genres such as Kreasi Baru, Tari Kreasi, and Musik Kontemporer, I will also discuss its roots in early twentieth century instrumental compositions as well as its development and lasting affiliation with structures of power in Bali and abroad. This provides context for the diverse set of stylistic, topical, and historical referents that are drawn upon in contemporary kreasi composition.

In the next chapter I will discuss styles of elaboration by comparing the theoretical writings of Tenzer, Rai, and Bandem. I focus primarily on pre-composed styles of elaboration, the most prevalent of which is ubit-ubitan. I then discuss some examples of "melodic divergence" (Perlman 2004: 63-74) that arise during the compositional process in non-kreasi genres. The point here is to characterize melodic elaborations in Balinese music as a "non-classical category" (ibid: 18-21). Thus, I present melodic elaboration in Balinese music as a diverse and internally inconsistent theoretical system with flexible norms that possess tremendous potential for distortion and expansion.
Analysis: some recent thoughts

Climate changes in ethnomusicological theory are enabling the use of hybrid analytical methodologies. In anthropology, the binary distinctions between “insider” and “outsider” and as well as “emic” versus “etic” perspectives have broken down into an infinite spectrum of inter-related subjectivities. This ideology has led to the appearance of “reflexive ethnographies” that self-consciously acknowledge the ideological and cultural contexts of the ethnographer. Consequently the ethnographic document itself has been recast as a subjective representation filtered and arranged by those contextual biases (Tyler 1988: 123). In ethnomusicology this perspective has been influential in a large number of works over the last two decades.\(^4\) For some authors it brings a sense of relief because we are liberated from representing our subjects as “discrete objects or texts” (Clifford 1988: 25). Clifford also mentions that our increasing sensitivity to subjectivity allows for a new vision of culture as something both “historical and interactive” (ibid: 25).

\(^4\) Kisliuk 1998, Hagedorn 2001, and Rice 1994 are just a few examples.
The question now is, "what is the place of (ethnographic) musical analysis under these new conditions?" If we follow Clifford's logic, musical analysis (like ethnography) is similarly liberated from the responsibility of revealing hidden truths and perceptual absolutes. Now it assumes a new role as one of many voices in dialogue that like all modes of ethnographic representation are ideology-based and "essentially creative" (Tenzer 2006: 6).

Scholars are attracted to analysis because they believe that it has the ability to elucidate "deep" or "hidden" structures felt somewhere beneath the musical surface (Stock 1993: 220-221). Types of categorization are important to bear mind when attempting to reveal these sub-surface structures through imported analytical means. Perlman (2004: 18-21) deals with the issue through cognitive psychology by discussing aspects of Javanese music in terms of "classical" and "non-classical" categories. In a broad sense, classical categories are groupings that are internally consistent on the basis of pre-determined criteria. An example in linguistics would be regular verbs because they behave consistently on the basis of pre-determined grammatical rules. Non-classical categories or "family resemblance" categories (Perlman 2004: 19 after Wittgenstein) are groupings based on similarities that are not internally consistent on the whole. A table, is one famous example of a non-classical category. It may or may not have four legs. It may or may not be made of wood. It may or may not even be used to put things on. Still, these items of disparate usage, make-up, and appearance may still be called, "tables". Creating these categorical distinctions is important when dealing with diverse and inconsistent systems like Balinese music. Many aspects of Balinese music resist

\[5\] See also Tenzer 2006 and Perlman 2004.
standardization. This heterogeneity is even a source of pride among Balinese. Creating this distinction between category types is important in order to avoid what Perlman refers to as, “everyday structuralism” (Perlman 2004: 20-21). Meaning, this distinction helps us to avoid creating rigid categories that belie the heterogeneous nature of the material being analyzed. This distinction helps us to avoid creating rigid categories that belie the heterogeneous nature of the material being analyzed. While Perlman uses the term to describe garap in Javanese music, I will be referring to various styles of melodic elaboration in Balinese music in this manner. I will also borrow Perlman’s terms melodic “convergence” and “divergence” when illustrating how these elaborations may be appropriately labeled non-classical categories.

Another important issue in analysis is representation and accountability. Are we to assume in this “polyphony of voices” all parts are given equal say at equal volume? Or do structures of power continue to favor certain parts on the basis of racial and economic distinctions, thereby inhibiting the expansion of knowledge of musical systems beyond euro-centric paradigms? Different writers have emphasized different priorities and ideological agendas when theorizing on this issue. Some optimistically predict that technology (such as TV, internet, itunes, etc) is increasing the frequency and efficiency of cross-cultural interactions, which may lead to the advent of a “universal music theory” (Tenzer 2006: 32-33). However, other proponents of cross-cultural analysis remain skeptical of academic epistemologies and their relationships to power. In short, “what about those who can’t afford TV, internet, or itunes. What responsibilities do we have in

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6 namely ubit-ubitan, reyong norot improvisation, and reyong kilitan.
7 McGravw 2005: 83 borrows the concept from Foucault after Baktin.
making ethnographic representations of their music?” An interesting example of this polemic was played out in front of me at a recent UBC colloquium:

In 2006, Michael Tenzer and Kofi Agawu both published texts theorizing on the prizes and pitfalls of analysis and world music. Agawu was asked to give a presentation based on a forthcoming article for *The Journal of the American Musicological Society*. The talk critiqued methods of analysis applied to African music, with a particular focus on various representations of the “so-called standard pattern” (Agawu 2006: 1). Towards the end of his talk Agawu read the following two sentences from his paper:

> My particular burden in this article has been to deny that any structural feature of African rhythm has an *a priori* validity that excuses it from a cultural test, while also denying that essential aspects of a cultural view resist structural translation. Questions of priority in research cannot be answered outside the purview of ideology, however—what we believe the enterprise to be about, what we get out of it as practicing analysts or theorists, and how we do facilitates or impedes intellectual (or other forms of) domination.” (ibid: 42)

Following that, Tenzer asked that Agawu re-read the first sentence. After hearing it a second time he thought for a moment and asked, “okay, but isn’t there a more positive way to say it?” Agawu response was, “that’s a cultural perspective, now isn’t it?” The room fell silent for a few awkward moments. Agawu seemed to say that the differences in their racial and cultural backgrounds were responsible for their contrasting outlooks on musical analysis, and that those cultural differences are the reason Tenzer does not identify with Agawu’s “negativity”. While both are proponents of cross-cultural analysis, their differences became stark during those few silent moments.

Tenzer sees universals and inclusiveness, while Agawu reminds us of our “burdens” and the potential for “intellectual domination”. How might their differences be the result, as Agawu said, of their “cultural perspectives”? Agawu, a native Ghanaian,
deals primarily with African music. In the context of North America, issues of representation concerning African and African American culture are of much greater and more immediate political gravity than that of Balinese culture. There is no “Balinese-American” population that exists as the result of a massive slave trading operation; consequently there were no wars fought over their freedom, no publicized history of prejudice towards them, no civil rights movement concerning their rights as Americans, no Balinese James Browns, Martin Luther Kings, or Fela Kutsis. In short, there is no Balinese cultural movement in North America with a history of resistance to political and cultural oppression to challenge the Bali-ologist’s means and methods of representation. Only recently have some ethnomusicologists begun to criticize racial biases in ethnomusicological theory with regards to Asian (specifically Chinese) music, but these critiques deal more with ideological generalities than analytical specifics. This relative ignorance of Balinese culture amongst the North American populace is both a curse and a blessing. On the one hand, as ethnographers we are free to interpret culture with comparatively few political repercussions yet on the other, we are robbed of accountability to anybody other than our own conscience.

Hopefully, intercultural dialogues will continue to flow with increased ease and fluency until a day comes when Balinese and North American scholars can exchange ideas with comparable bargaining power. Steps are already being taken to level the scholastic playing field. Tenzer’s book on Gamelan Gong Kebyar (2000) is currently being translated into Indonesian, making his theories and methods more widely known to

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8 Although, an estimated 150,000 Balinese were sold and/or traded as slaves throughout the Indonesian archipelago between 1650-1830 (Shulte-Nordholt 1996: 41).

9 see Witzleben 1997.
native Indonesian scholars. As well, there are some scholars that are bringing Indonesian scholarship into North American discourse. An interesting example is Perlman’s (2004) book, which compares three Javanese scholars’ concept of “hidden melody” in Javanese Gamelan. Perlman’s approach is also interesting in that it circumvents (to a degree) some issues of power and representation. Perlman’s work comments on and synthesizes threads of indigenous discourse rather than running the riskier proposition of positing his own perceptual opinions on Javanese melody.\textsuperscript{10}

Despite discrepancies on the surface, the differences between Tenzer and Agawu amount more to differences in personality and style rather than approach; a proverbial “good cop, bad cop” for the occasionally stand-offish encounter with a musical text. Both theorists stress the importance of culturally informed analytical techniques or “ethnotheories” (Agawu 2006 and Tenzer 2006), and share the basic assumption that analysis of world music has the potential to empower non-western music and musicians by bringing them into “international discourse” (Tenzer 2006: 10). As we saw above, Agawu is not opposed to using non-indigenous analytical models with regards to African music (in his talk, after critiquing several theories he settles on what he calls a “generative approach,” based on Lerdahl and Jackendoff) as long as the technique employed is cross-checked by a “cultural test.” Similarly, Tenzer adapted the concept of contour-class using terminology developed in Michael Friedmann’s analysis of Schoenberg (Friedmann 1985). In both cases however, the theories were employed with cultural concepts in mind. For Agawu the generative approach makes more sense than

\textsuperscript{10} Although he does run a risky proposition in comparing the evolution of the hidden melody theory to the evolution of the “chord-root” in Western Music (Perlman 2004).

\textsuperscript{11} Tenzer was referring to statements from Agawu 2003, and Scherzinger 2001 that were referring to African music specifically.
others because of the standard-pattern’s relationship to basic dance movements. For Tenzer the analysis of contour seems appropriate in light of indigenous vocabulary for describing the kinetic quality of melodic patterns (Tenzer 2000: 178-80).

In conclusion, recent ideological shifts are enabling the use of hybrid methodologies. Analysis is now free of its responsibility to absolute truth, but remains a valuable tool to deepen individuals’ relationships to music. An important issue in analysis is the development of categories and it should be done in such a way to allow for exceptions to avoid over simplifying a much richer musical reality. While some theorists emphasize issues of misrepresentation to varying degrees, most seem to agree that western theoretical models can be useful if applied with cultural sensitivity.
Chapter II Many or just Different? A Lesson in Categorical Cacophony

My primary impetus for engaging the set of terms *polyphony*, and *heterophony* has to do with inconsistencies and confusion regarding their use in discussions of Balinese music and Indonesian music in general. The following chapter is an etymology of both terms in Western music as well as in ethnomusicology. I will argue that with respect to how each idea has evolved, it is problematic to create definitive boundaries between the two concepts. In some cases, the distinction between heterophony and polyphony is obvious. However, my focus is the music that exists in the gray areas between. Through an analysis of the terms and their usage, we get an understanding of how this is possible. This historiography illustrates how heterophony and polyphony function as *concepts in practice*. I therefore stress that the similarities are not necessarily evident through a comparison of the musical systems and their rules of syntax.
Moreover, they lie in the cognitive *processes* of manipulating pitches, rhythms, and intervals. There are three such process domains where these similarities are most evident. They are the compositional, the analytical, and the pedagogical process domains. In these three domains, polyphony and heterophony become less distinct.

The goal is to establish a suitable environment to discuss the nuances of melodic abstraction and elaboration in various kinds of Balinese music. I propose that, in terms of process, both musics avoid (or resolve) dissonance at metrically and structurally important places. This is evident in Balinese examples where simultaneous adjacent scale tones occur more frequently at metrically weak points and are less common at
metrically strong points. The absence of these dissonant\textsuperscript{12} simultaneities at points of metric stress creates a structurally meaningful accent that is perceivable to listeners familiar with Balinese music and Balinese musical norms. On a conceptual level, this resembles basic processes of harmonic practice in tonal music. I present this a stepping-stone to the uniquely polyphonic examples in contemporary \textit{Tabuh Kreasi}.

\textit{Polyphony now and then}

It would be informational overkill to give a complete history of polyphony's usages and contexts in western music. However, a brief retracing of its roots is appropriate in order to get a sense of how concepts of polyphony have evolved to their present status. Prior to 1538, the term “polyphonia” was used to as a blanket term for various types of part writing, and later evolved as an alternative to “dyaphonia,” (similar to homophony, but involving only two parts) “Polyphonia” in this sense is characterized largely by “rhythmic diversity in its parts” (Frobenius 2001). Essentially, the concept evolved to describe multi-part music that was not homorhythmic. It was not until 1538 that an ideological thread was born characterizing polyphony as, “composition involving several parts of equal importance” (ibid.) This idea of “equality” between voices needs to be contextualized and will be discussed in greater depth later on. At this point theorists focus on polyphony as a melodically driven process, wherein other processes (particularly the progression of vertical harmony) are “subordinate” (ibid). This concept was widely accepted and developed by Koch, who in 1802 wrote of polyphony as music

\textsuperscript{12} I use this term cautiously since there is no explicit discourse concerning dissonance in Balinese music. However, the fact that seconds, and thirds occur more frequently in metrically weak points indicates that there may exist an implicit understanding that those intervals are somehow more unstable.
wherein each voice has "the character of a main voice" (ibid). Koch also wrote that in polyphony, "the feelings of several people are expressed" (Koch in Frobenius 2001). However, in 1862, Bellerman contested that the defining feature of polyphony was not melodically based but moreover the result of "the rhythmic relationship between voices" (ibid). This idea is more akin to early descriptions of "polyphonia." From these theories we may conclude that prior to the twentieth century, polyphony consisted of "equal" parts that were affectively distinct yet somehow fused into a compositional unity. We must also keep in mind that implicit in these descriptions are aesthetic assumptions about the rhythm and tonality that are specific to pre-twentieth century European art music.

Polyphony takes a different shape in the twentieth century with the dissolution (or expansion) of tonal harmony. With the advent of serialism, indeterminacy, collage, bi- and polytonality, etc., the idea of expressing, "the feelings of several people at once" takes on an entirely new meaning. In writing, the shift in emphasis is obvious. Boulez (1964: 153) for example classifies polyphony as "constellations that are mutually dependent in a special way as far as pitches and durations are concerned." He also describes polyphony as music whose parts are "responsible" for one another. (Boulez 1964: 136) Whereas early theorists are able to take for granted notions of meter and tonality Boulez must use broader terminology to incorporate contemporary aesthetics. In defining polyphony, it is clear that his emphasis is on the interdependence rather than the independence of parts. Webern's emphasis is similar. He stresses the combining of polyphonic materials to form a "musical synthesis" (Frobenius 2001). In a compositional climate where almost anything goes, these composers choose to emphasize that polyphonic music must still, despite its differing elements, constitute a greater musical
whole. This is in direct contrast with earlier theorists who emphasize the individual character of the various voices.

Theorists have long debated what music best exemplifies these characteristics. In these debates, polyphony is often framed in contrast to homophony (parts that are melodically but not rhythmically distinct). Theorists stress that in homophonic writing, the primary musical emphasis is the progression of vertical sonorities, while good polyphonic writing favors the melodic cohesion of individual parts (having “the character of a main voice”). There is something tacit in these discussions of homophony and polyphony. The debate assumes that polyphony is more complex and by virtue of our own cultural associations, of greater artistic value than monophonic or homophonic musics. Even the words’ own morphology suggests a basic distinction. Although Bach and Beethoven are pillars of western music, Bach’s contrapuntally oriented music beats Beethoven’s harmonically driven works, if only by a nose. Nineteenth Century scholars who endow polyphony (particularly that of Bach) with a uniquely “objective” and “universal” appeal reinforce this (ibid).

The differing emphases of theorists discussing tonal music versus those discussing non or post-tonal music encapsulate the conceptual bounds of “polyphony” in Western musical thought. During the evolution of tonal and functional harmony, (the period during which a hierarchy of dissonance was formed and relied upon) independence and distinctiveness between parts is emphasized. Such polyphony is understood in light of historical context to conform within certain parameters of register,

\[\text{Nettl 1995 discusses how Western culture’s propensity to valorize size as well as rigor in terms of empiricism and technological advancement is evident in musical historiography. One can argue that in terms of music and musical language the controlled polyphony of the late-Baroque readily embodies such principles more than music of other periods.}\]
tonality, and rhythm. While the basic principle is the same in the twentieth century, the parameters are much broader. The basic features of polyphony are left intact, however the wording is adjusted to accommodate the broadening of the parameters just described. In light of this broadening, the emphasis shifts to cover the gap. Polyphony as independent parts becomes polyphony as interdependent structures. And paradoxically enough, authors who choose to focus on the interdependent nature of polyphony in twentieth century are referring to music that is tonally and rhythmically independent beyond the wildest imaginations of the theorists living in 1538.

Before moving onto polyphony as it relates to ethnomusicology, I should bring up some potential problems with the idea of polyphonic parts as being "equal"-ly valuable. This idea was introduced as early as 1538 by Kirschner and further canonized by writers like Alsted and Marpurg. (Frobenius 2001) Although functional harmony and tonality as we know it did not officially coalesce until the 18th century, Renaissance and Baroque musics were still guided by melodic and harmonic principles that place dissonances within a hierarchy. This vertical phenomenon combined with horizontal means of approaching and departing those dissonances, means that certain voices are controlled or are at least composed in reference to other, more primary voices. This interdependence is what is implicit in discussions of tonal music and explicit in discussions of post-tonal music.

This is obvious in the case of the cantus firmus. In terms of the compositional process, the cantus firmus is a primary voice from which all melodic material is derived. On that conceptual level, the voice with the cantus firmus possesses a greater importance than the surrounding parts. If we take the idea of "equal parts" literally, all music based
on a cantus firmus must not be polyphonic. In terms of the analytical process domain, Schenkerian analysis also works against this idea of equal voices. From a Schenkerian perspective, the bass and soprano are of greater structural importance than the inner voices. It can also be argued that at any given moment in time the voices of a fugue may also exist within a hierarchy. The voice that carries the subject exhibits greater primacy over the counter-subject, which exhibits greater primacy over the “free” voice(s). Such conceptual hierarchies are even clearer in the compositional exercises within pedagogical texts\textsuperscript{14} that direct the student to compose fugues and another types of imitative counterpoint in a certain order thereby instilling a hierarchy of voices from the outset.

While frequently applied and debated in western music, the term polyphony has been somewhat taboo in ethnomusicology. As Peter Cooke writes, we are, “uneasy about using the term” (Cooke 2001). He traces our discomfort to early scholars who looked at Non-Western music “within an evolutionary framework (in which European contrapuntal and harmonic traditions stood at the apex and ‘polyphonic’ had acquired a rather specialized meaning” (ibid). Cooke is reminding us that our cultural biases are no longer as apparent or as glaringly racist as they once were, but that they still operate on deeper levels, effecting our willingness to draw conceptual analogies between certain western musical phenomena and similar phenomena in different cultures. The term polyphony is (understandably) particularly intimidating, given the amount of cultural weight the term has acquired over the past millennium. Perhaps even more intimidating; it is the hallmark of western music. Our unwillingness to apply it to music of different cultures in many

\textsuperscript{14} see \textit{Practical Approach to Eighteenth Century Counterpoint} Robert Gauldin, 1995.
ways reinforces the status of polyphony as our music's defining feature. It is what exemplifies the complex and rigorously developed state of our musical syntax.

Perhaps one of the most rigorous definitions of polyphony in ethnomusicology is that offered by Simha Arom in his structuralist analysis of instrumental music of BaAka pygmies in the Central African Republic. After offering a history and analysis of the word (drawn mostly from Riemann), Arom derives the following traits of polyphony “non-parallel, heterorhythmic, multi-part and simultaneous” (Arom 1991:34, 38). He goes onto corroborate the qualifications laid out by earlier theorists by saying that polyphonic parts must be internally cohesive, harmonically compatible and rhythmically dissimilar. These parts must also thought of as, “constituent elements of a single musical entity” by the performers themselves. (ibid: 34) Arom also makes note of the fact that in Western music parts or voices occupy distinct pitch registers and that this is yet another factor when trying to locate polyphony in non-Western music.

In the second part of this paper, I will show that on the basis of these traits, contemporary forms of melodic elaboration in Balinese music are polyphonic.

Heterophony...what is it exactly?

Our choice of terminology reflects basic conceptual distinctions. Such cognitive processes are defined as “cross-domain mapping” (Zbikowski 2001: 13-17). In this process we map interactions of perceived sonic phenomena from an abstract and intangible domain to a more concrete domain wherein we endow the sonic phenomena with concrete physical properties as if they were objects. (ibid) The terms heterophony and polyphony are an example of such a process. By labeling a piece “polyphonic”
literate "many sounds") we are taking an intangible sonic mass, for example a Bach fugue, and endowing what we perceive to be a collection of individual melodic strands with a metaphorical object-hood. On this basis the term heterophony (literally, "different sounds") implies that there is only one melodic strand that is realized by individual parts, differently. Consequently music that is rooted in the realm of heterophony is by default less complex on a conceptual level, than music rooted in polyphony.

According to The New Grove Dictionary of Music and Musicians, heterophony is "fundamental to the music of the Indonesian gamelan." This statement and statements similar have been reiterated ad infinitum in discussions of both Javanese and Balinese gamelan music. Recently a few scholars working primarily in the field of Javanese music have taken issue with the term. With reference to Central Javanese gamelan Benjamin Brinner writes, "both heterophony and polyphony are equally unsatisfactory descriptions of gamelan texture, which is characterized both by considerable independence and by extensive melodic derivation of one part from another" (Brinner 2001). Marc Perlman (2004), another Java specialist, finds fault with heterophony for similar reasons.

One particular problem with the concept of heterophony, is that it is simply too vague, yet for some reason it has become our word to describe the "fundamentals" of Indonesian music. It is also employed much more frequently than the term polyphony by ethnomusicologists in countless other areas as well. It is problematic because it has been used to describe everything from minute variations among vocalists or predominantly unison parts to "the most complex contrapuntal writing" (Cooke 2001). If this is the case then why is music composed from a "cantus firmus" polyphonic rather than heterophonic?
In practice, perhaps the defining feature of heterophony is the arrival of unisons and octaves at structurally significant points. However if this is case, the distinction between it and polyphony is problematic because it is rooted entirely in the realm of musical materials. And I do not want to confuse differences in musical materials with differences in musical processes and conceptualizations. In terms of process, musical materials, while not necessarily irrelevant, are relative in how they are combined in various process domains. However, as illustrated above, the terms heterophony and polyphony imply very different ways of conceptualizing music. Yet, it appears that those differences lie more in material terms rather than conceptual ones. This will become clearer in the next chapter as we examine Balinese musical materials in the compositional and abstractional process domains.

These domains indicate that there are hierarchies among voices in polyphonic music. This also indicates that processes of derivation normally associated with heterophony are also regularly applied to polyphonic musical styles. In this sense we are presented with, “a heterophony of polyphonies” (Boulez 1964: 133). In the next section we will see how Balinese musical materials in kind exhibit a “polyphony of heterophonies.” This is enabled through the use of dissonance between rhythmically and registrally distinct voices. I focus on the similarities to polyphony in the compositional and abstractional process domains. We will see first that Balinese musical materials are rooted in the heterophonic arts of melodic elaboration and abstraction. However in the compositional and abstractional process domains, Balinese music makes frequent use of seconds and thirds both to 1) enhance the horizontal cohesiveness of and individual part 2) emphasize metrically and structurally important moments in a composition.
Chapter III Historical and Theoretical Contexts

Introduction

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Table 1-Stratum Types in Balinese Gamelan

The following section is a historical and theoretical overview of the melodic elaborations in the contemporary genre *Tabuh Kreasi*. The analysis explores compositional innovations in terms of their increasing degrees of dissociation from the core melody or *pokok*. I begin with some examples that are basically heterophonic that incorporate innovations in terms of rhythm and contour and move gradually to discuss examples that reinterpret the function and meaning of *pokok* in general. The analysis breaks down the orchestral forces into “stratum types” (Tenzer 2000: 53) in order to aptly articulate the degree to which melodic parts are abstracted or dissociated. Needless to say the higher the degree of melodic dissociation between parts, the more polyphonic the music is.

The above table outlines the basic melodic relationship between parts in Gamelan Gong Kebyar. The “concepts” column refers to the processes applied to melody in relationship to the metric structure. The chart serves as a good basis for understanding.
these relationships. Take care to notice that no musical concept, stratum type, instrument or term explicitly plays or illustrates the "melody" of a composition. This is similar to the notion of "unplayed melodies" in Javanese music, wherein the "true" or "ideal" melody exists somewhere in the mind, between the melodic abstraction played by the saron and its various elaboration\textsuperscript{15}. I modify this basic schematic to show how complex the relationship between elaboration and abstraction is in newer music.

Such a breakdown could easily apply to other genres of Balinese music as well. However a key feature to Tabuh Kreasi today is the expansion of this basic model, which (to varying degrees) allows for a more complex interaction between the concepts of elaboration, abstraction and mediation. In many of the examples there is more than one pokok (which, in a sense, negates its pokok-ness), which is not reinforced by the jegogan, and is not elaborated by traditional means. Essentially, these examples break down the heterophonic hierarchy completely. Part of what makes kreasi so fascinating is the inconsistency with which composers do this. However, despite this inconsistency, their musical innovations remain internally cohesive in terms of traditional Balinese syntax. For example, many innovative elaborations rely on what could be an indigenous tonal hierarchy. In the most polyphonic examples there is a general tendency for melodic parts to coincide on larger intervals (most commonly octaves, unisons or fourths), and avoid coinciding on adjacent scale tones. Also, almost all elaborations undergo melodic transformations as they approach metrically significant points (like the end of a cycle). First, we will cover some cognitive and theoretical preliminaries with which I frame my analysis.

\textsuperscript{15} A term first coined by Marc Perlman 1993.
Melodic Elaboration in History, Theory, and Process

In order to understand how contemporary music is stretching and reinterpreting the syntactical norms of Balinese music, we must understand it from three basic perspectives. First we will briefly trace the development of Tabuh Kreasi in order to get a basic understanding of how cultural and political factors have shaped and continue to shape the stylistic features of the genre. Secondly, we will explore modern theories of melody and elaboration in Balinese music, in order to get a handle on how people talk about the general characteristics of melodic elaboration and its inverse process (melodic abstraction), as well as to get a sense of the "well-formedness rules" (Lerdahl and Jackendoff 1983: 37) for the modern Gamelan Gong Kebyar. This is framed primarily through the work of Tenzer, Bandem, and Rai, and incorporating analytical perspectives from Lerdahl and Jackendoff. Lastly, we will look at some musical examples in order to see how the basic materials identified in theory are put together in the compositional process. Looking at these examples we will see how materials based in the realm of elaboration and abstraction routinely employ dissonance to favor horizontal cohesion within individual parts as well as for compositional balance.

Like polyphony and heterophony, I propose we characterize elaborations and abstractions as non-classical categories. That is, due to the extreme heterogeneity of Balinese music it is nearly impossible to accept or reject a given elaboration on the basis of fixed criteria. Evaluation of a given elaboration must be nuanced enough to account for a variety of factors that are musical, extra-musical, abstract and context dependent. Using both western and indigenous analytical models, I will be elucidating some of these
relevant factors, while paying particular attention to melodic divergence as it results from
these processes. The contemporary examples we will look at often break down the
concepts of elaboration and abstraction entirely. Instead they consist of many different
melodies, none of which exert clear guidance over the other parts. We will also see how
the indigenous compositional factors mentioned are guiding this increased independence.

History

Tabuh Kreasi Baru (instrumental works) and Kreasi Baru (a more general term
referring to both music and dance pieces) are Indonesian terms that emerged in the years
following Indonesian independence. At the time, Indonesia was searching for a national
music to unite its 17,000 islands and over 300 ethnicities. Some music critics in Java
favored the adoption of music based on western tonality and instrumentation (musik
Indonesia baru). In both Bali and Java the term Kreasi Baru has appealed more readily
to the populace (Raden 1995: 237, see also McGraw 2005: 3). In Java, Kreasi Baru
gained popularity through the work of Javanese gamelan composer Ki Wasitodipuro.
According to Raden, in an attempt to incorporate the regional tradition of Javanese
gamelan into the new Indonesian state, Wasitodipuro was asked to create music that
made use of completely new formal structures and musical idioms. By divorcing the
music from its traditional roots, the idea was to create a new tradition that could appeal to
all Indonesian people. Composers of Kreasi Baru from this period were also encouraged
to incorporate songs and styles from other Indonesian musical traditions in order to
broaden its appeal. This culminated in the creation of Jaya Manggala Gita,
commissioned for Indonesian Independence Day in 1952. The piece self-consciously
employs several non-traditional musical features including, “bi-tonality, linearity, and polyphonic voice writing”. (Raden 2001: 241) All of which, at least according to Raden, were inspired solely by western music.

In Bali, *Gamelan Gong Kebyar* had already been experiencing widespread popularity since the 1920s. The genre itself purportedly evolved at some point in the 1910s in North Bali. According to some accounts, the earliest *kebyar*-isms may have originated in the villages of Bungkulan and Jagaraga, which began incorporating sharp, “thrusts and syncopations” into music for *Gamelan Sekati*[^16] (Bandem 2006: 2). In the 1920s *kebyar* spread beyond north Bali, particularly due to the influence and fame of dancer I Ketut Maria. (Ibid: 5). After moving to South Bali, tourists and scholars became particularly familiar with groups from south Bali namely, *Belaluan* and *Peliatan*. One of the few surviving examples of instrumental *kebyar* from this period is *Kebyar Ding*, by *I Made Regog*[^17], which was recorded in 1928 by Odeon. Unlike the music of the pre-colonial court system, *Gong Kebyar* was a democratic music because it evolved only after the Dutch dissolved the court system (Ramstedt 1992: 68). After Indonesia gained independence, President Sukarno actively supported the promotion of *Gong Kebyar* as Indonesian *Kreasi Baru* for this reason.

Sukarno, whose mother was Balinese, frequently invited Balinese musicians and dancers to perform in Jakarta or at his palace in Bali. Two famous Balinese musicians that were often asked to perform were I Wayan Beratha, the son of *Gong Belaluan’s* leader, I Made Regog, and I Gde Manik, the master drummer and dancer credited with

[^16]: An ancient gamelan similar to *gong Luang*.
[^17]: This was recorded in 1928 by Odeon, and is now available commercially through World Arbiter/Qualiton.
creating the contemporary version of now canonic dance piece, *Teruna Jaya*. (Tenzer 2000: 95). *Kreasi Baru* from the Sukarno era favored secular themes that focused on social realism rather than Hindu mythology. This is quite different than the majority of dance and theatre pieces being created today. Some famous examples from this period include, *Tari Tani* (farmer dance), and *Tari Nelayan* (fisherman dance), and *Tari Gotong Royong* (mutual helping dance) (Ramstedt 1992: 68, see also McGraw 2005: 29 and Tenzer 2000: 95).

In 1959, KOKAR (music conservatory) was founded, and eight years later the *Akademi Seni Tinggi Indonesia* (Indonesian Academy of High Arts) was established. These institutions were instrumental in the development of *Kreasi Baru* in the sixties and seventies. Beratha became particularly famous after the 1968-69 Gong Kebyar festivals and almost single-handedly forged the terra for contemporary instrumental music in Bali. After the festivals, I Wayan Beratha’s works were disseminated throughout the island with the help of RRI (Radio Republik Indonesia) as well as through KKN (Kuliah Kerja Nyata) initiatives. Through KKN, students from KOKAR and ASTI furthered his celebrity by performing outreach services in local villages and teaching his music to their village ensembles (McGraw 2005: 127). In this way, Beratha’s music almost instantly established the *Kreasi Baru* canon.

The traditional concept of *Tri Angga* connotes the trisection of a body or form. Around this time it was developed, in music, to describe a tripartite formal structure that is purportedly found in most works of the *Gong Gde* and *Semar Pegulingan* repertoires. The individual parts are often characterized symbolically as the *kawitan* (head), *pengawak* (body) and *pengecet* (legs). The musico-religious symbolism is one
ideological thread that binds contemporary kreasi to tradition in the minds of composers. However locating this form in pre-independence kebyar is often a dubious task. In the general musical terms, the kawitan is an introduction of sorts, and if composed during this time will likely include a series of unmetered unison phrases referred as kebyar. These are best performed with laser sharp timing and near supernatural synchronicity. The pengawak is typically at a slower tempo than other sections of the piece and usually has the longest melodic cycle. The pengecet by contrast, consists of a shorter melody at a faster tempo. In the 1980’s, KOKAR and ASTI (later STSI), became increasingly concerned with concept of Tri Angga in Kreasi Baru and developed a rigorous set of rules and principles under which all innovations in Kreasi Baru must be guided. This was largely due to changes cultural policy under Indonesia’s new leader, Suharto.

The Suharto regime brought massive change to life in Bali. First and foremost was the rapid expansion of Bali’s tourism industry, of which culture and the arts were and remain to this very day, a particular focal point. From this period up through the eighties and nineties Kreasi Baru matured largely under the auspices of the conservatory system (Harnish 2000:1, 8). Their influence was enabled in part through recordings and performances at the popular, “Bali Arts Festival.” Similar to Beratha, I Nyoman Windha emerged as an influential composer in the formation of Kreasi Baru throughout this period. Still now, his compositions almost routinely receive first prize at the annual Gong Kebyar competition.

ASTI/STSI graduates and students, from the 80’s until now often perform, “as innovators in the performing arts” (Ramstedt 1992: 79). According to Ramstedt these innovations, must be based upon the following three criteria, “Preservation of an idea,
form, and the harmonious balance between them” (Bandem 1986 in Ramstedt 1992: 79). The central idea is that although *Kreasi Baru* is the free-est form of Balinese instrumental music, it must adhere in specific ways to tradition while also incorporating global and pan-Indonesian influences. One way in which composers are expected to exhibit this balance is through *Tri Angga* form. However, this has become increasingly contentious among composers and scholars in recent years (Harnish 2000:13).

In a general sense, *Kreasi Baru* has always implied aspects of change or deviation within a largely traditional framework. Nowadays, it is one way that composers are able to differentiate between *Tabuh Kreasi* and its more extreme younger sibling *Musik Kontemporer* (which often relies entirely on unusual ensembles and extended techniques, similar to experimental or *avant-garde* music in the West\(^\text{18}\)). The way in which such theories (like *Tri Angga*) are constructed is important to keep in mind. It shows that the framework within which innovations take place is as fluid and un-fixed as the innovations that reinterpret it.

In general, Beratha’s pieces are shorter and more melodically succinct than other works of the time. Some of his most famous works from the 50’s and 60’s are his versions of *Kosalia Arini*, *Swa Bhuana Paksa*, and *Jaya Semara*\(^\text{19}\). These pieces illustrate melodic concision and clear formal divisions. Some pieces, *Jaya Semara* for example, consist only of a long unmetered *kebyar* and *pengecet*. Famous also during this period although not nearly as influential was the *Peliatan* composer and performer I Wayan Gandera, known for works like *Sekar Jaya* and *Hujan Mas*. *Hujan Mas* is another example of a piece consisting of only two large sections. During this period, a Balinese

\(^{18}\) See McGraw 2005 for a lot more on *Musik Kontemporer*.
\(^{19}\) See Tenzer 2000: 327-31, and 332-37.
adaptation of a Javanese traditional song, *Gambang Suling*, also emerged. We will come back to some of these examples later on, when examining theories of melodic elaboration in the next section.

By the mid-seventies *Tabuh Kreasi* had expanded in scope and form. *Tabuh Kreasi* from Pindha and Perean are classic examples. I Nyoman Windha’s *Gora Merdawa* and *Jagra Parwata* epitomize his stylistic contributions to *Tabuh Kreasi* from the mid eighties through the early ‘90s. From these years onward, *Tabuh Kreasi* exhibit a much more expansive formal structure consisting of eight distinct sections. Vitale (2002: 39) outlines “Late-Twentieth Century *Tabuh Kreasi*” structure as follows:

1. **Gineman/kotekan group**
   a. *Gineman*: Opening statements for the *gangsa*, *reyong*, and low instrument groups, typically ametric and/or fragmented, separated by pauses which highlight the instruments’ long sustain. Alternately, a *kebyar* opening: a dynamic orchestral tutti of short ametric phrases.
   b. *Gegenderan (Kotekan)*: A single, long, regularly pulsed melody with elaborate interlocking figuration (*kotekan*) played predominantly or entirely by the *gangsa* group; repeated once or twice.

2. **Bapang group**
   a. *Peralihan* (transition): lead-in to *bapang* proper
   b. *Bapang*: The next large cyclic island, often consisting of one or more ostinati (typically 8, 16 or 32 beats in length) in very fast tempi; elaborated with passages successively highlighting the various instrumental sections (*kendang/ceng-ceng, reong, gangsa*), with occasional tutti orchestral interjections.

3. **Pengecet (or Gambangan)**
   a. *Peralihan* (transition): lead-in to *pengecet* proper
   b. *Pengecet*: A series of full orchestral statements in a medium or medium-fast tempo, often in a balanced phrase structure (e.g. 8 + 8 or 16 + 16 beats). The overall atmosphere is that of relaxed and regular tunefulness, in contrast to the dynamic material of previous sections.
   c. Short codetta (*penyuwud* or *pekaad*)

These formal divisions fit (albeit roughly) into the concept of *Tri Angga*, in that there are three large parts. Such formal constraints have been the bounds for *kreasi* innovation since the 1970s. As mentioned earlier, the conservatories have enforced and essentially mandated adherence to these formal divisions since the 1980s; a fact that frustrates some
Balinese composers. One critic is STSI faculty member, Saptono,

"Who made this *tri-angga* concept? Each recital, every thesis, always this concept is referenced. But if we really look and observe the classic kebyar music like *Oleg* [tambulilingan], or *Teruna Jaya*, where is the *tri-angga* structure? Yet, it is as if the students worship it. They organize the defenses of their recital works through this concept. And the composers, the juries, still use this term, even if the *kawitan* [head] today are really very difficult and intricate, and already very different from classical *Gong Gede kawitan* forms. Now the musical structures are quite different, but they still use the term ‘*kawitan*’ so that they can say that *Kreasi Baru* and *musik kontemporer* is really still traditional.” (Saptono, in McGraw 2005:53)

A distilled and concise version of this form is visible in Beratha’s *Kosalia Arini*. By contrast, *Tabuh* from Perean from the mid-60’s and 70’s are much longer (approx. 20 minutes) and often involve much stranger melodic material, and asymmetric meters. By Windha’s time, the sections within these forms are expanded, and the transitions between them more fluid. In a piece like *Jagra Parwata* for example, the transitional material creates a seamless vacuum between larger groups, somewhat obscuring the divisions between sections²⁰. In 1995, composer I Wayan Yudane purposefully inverted the *Tri-Angga* form by placing the *pengecet*, at the beginning, which according to at least one account, literally gave I Wayan Beratha a headache (he was in the audience, apparently). (Harnish 2000:19)

Another staple compositional feature throughout all these periods is the extensive use of quotation. Quotation stems from a long tradition of musical rivalry between villages. Villages often hold their respective version of a piece in high regard and have historically gone to great lengths to defend its secrecy. In the event that the secret gets out, it becomes fresh material for other *Tabuh Kreasi*. These quotations are part of what

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²⁰ This was once illustrated to me while listening to *Jagra Parwata* with I Wayan Sudirana.
Tenzer refers to as "topics," in Gong Kebyar composition. (Tenzer 2000: 163-171 after Ratner) Topics are revealed through the use of musical signifiers. These signifiers may exist within multiple musical strata simultaneously, and may create aural associations with both musical and extra-musical concepts. Other topics include structural or rhythmic allusions to older ensembles or specific dance characters. Tenzer indicates this semiotic aspect as integral to the experience of composing and listening to Gong Kebyar.

A famous example of a quotation topic is the gender wayang\textsuperscript{21} piece Sekar Gendot whose various parts appear frequently and almost anonymously in countless gegenderan (see p. 28) since the 1960's-70's. As the role of the composer has risen to greater prominence in Bali over the last century, this practice has become less common or at least less overt. But it is still alive and well in some cases. Some recent examples include I Nyoman Windha's, "Lekesan," where borrowed a 36 beat tune from Lou Harrison's, Philemon and Baukis.

In general, discussions of Kreasi Baru most often focus music and dance for Gong Kebyar. However, the term my be applied to new music for any traditional Balinese ensemble, including "ancient" ensembles such as Selunding, Gambang, and Gong Luang. In the early '90s, Wayan Beratha invented a new hybrid gamelan that fuses the basic instrumentation of Gong Kebyar with the seven-tone pitch gamut of the older ensemble Semar Pegulingan. After a few early incarnations the ensemble was refined into the present-day Gamelan Semarandana\textsuperscript{22}. This ensemble has been slowly increasing in popularity over the last fifteen years. Two of the most famous Semarandana ensembles

\textsuperscript{21} An older, smaller ensemble used to accompany shadow-plays.

\textsuperscript{22} Far more detailed histories of Semarandana can be found in McGraw 1999, and Vitale 2002. Vitale 2002 also contains a detailed analysis of the kreasi, Geregel. A transcription and analysis of Pengastung Kara can be found in McGraw 2005: 204.
are the Ubud-based group, *Semara Ratih*, and the slightly younger *Cudamani*. *Cudamani* is in many respects an offshoot of *Semara Ratih*, but with considerably different musical aesthetics and artistic goals. *Semara Ratih*, focuses mostly on *Gong Kebyar* repertoire, and in terms of *Tabuh Kreasi* specialize in Windha classics like, *Gora Merdawa*, *Lekesan* and *Jagra Parwata*. *Cudamani’s Tabuh Kreasi*, on the other hand, include some of the most radical experiments with Balinese tonality within a *Tabuh Kreasi* framework, to date. Their principal composer, I Dewa Ketut Alit, first garnered the attention of western scholars with, “*Geregel,*” a piece that incorporates a variety of harmonic and rhythmic innovations, and additional attention for his *penyambutan* (welcome dance) *Pengastung Kara*, in 2005. A record released through San Francisco-based Vital Records and two successful US tours have made *Cudamani* one of best-known Balinese groups in North America. More recently at least two other Semarandana ensembles have arisen in the Ubud area, led by young composers who are taking advantage of the unique compositional possibilities of *gamelan Semarandana*.

*Kreasi* of the present day are still heavily influenced by the precedents and mandates set by Beratha, Windha, and the conservatory system. Still now, the main forum for *Tabuh Kreasi* is the annual Bali Arts Festival, and its composers are more often than not ISI (formerly STSI/ASTI) graduates, students, and faculty. The judges themselves are usually current and former ISI faculty. This means that the current systems of patronage and discourse are deciding factors as whether or not a given *kreasi* is accepted or rejected and therefore disseminated. This significantly impacts the scope of impact for the innovations in the piece. These days, dozens if not hundreds of *kreasi*

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23 Namely these are *Sanggars Chandra Wirabhuana* and *Nrita Dewi*. 
are written every year and only a very small percentage of those works are played again. However, success at the Bali Arts Festival often translates to fame, respect, and recording contracts which are often much more valuable than the meager sum given to Festival winners. Remember it was Beratha's original success at the 1968 Festival that helped get him going. These names and institutions are also what frame and contextualize the innovations that take place within Tabuh Kreasi. For example, Yudane's experiments on form would be far less interesting if the idea of Tri Angga was not so rigorously defended by the institutions. Also, the recent success of privately funded Sanggar (arts cooperatives) such as Cudamani, provide an interesting counterpoint to the influence of institutions in the field of artistic innovation. It is important to keep these issues in mind when doing musical analysis, in order to contextual their musical significance in relationship to contemporary cultural norms.

**Abstraction and Elaboration**

There has been a surge in theoretical writing about Balinese music in recent years. Since Colin McPhee's landmark publication in 1966 there was very little work published until the last fifteen years. Michael Tenzer (2000) recently published the most comprehensive study since McPhee, concerning the twentieth century musical genre Gong Kebyar. Recent dissertations by I Wayan Rai and Andy McGraw have enlivened the discussion by offering unique perspectives on the structure and syntax of Balinese music.

To understand how exactly melodic elaborations deviate from compositional norms, the following section synthesizes existing theories of melody and melodic elaboration in Gong Kebyar, Semarandana and where applicable, Balinese music as a
whole. The goal of this section is to present a context for the innovations taking place in recent music. Doing so will involve looking through the unique perspectives of three scholars. We will come out of our investigation with some cognitive preliminaries classifying the lexicon of normative elaborations as well as getting a sense of how they are put together in process. From there, we can more accurately and articulately conceptualize the nature of the innovations in contemporary music.

According to McGraw (1999) there is an, “apparent lack of a comprehensive Balinese theory on mode, especially in comparison to the theory expressed in the central Javanese gamelan tradition” (McGraw 1999: 75). This is due in part to the extreme heterogeneity of Balinese music as mentioned several times so far. McGraw also comments that some ISI faculty are ambivalent about creating such a theory out of partial concern that it will stifle originality (this is similar to issues raised concerning Tri Angga). He cites Windha specifically, who feels that central Javanese music has essentially, “fossilized” (ibid: 76), out of extensive theorizing. Whether or not issues of popularity and innovation in the central Javanese tradition have any relationship to discourse is uncertain, however we can be sure that the melodic terrain in Bali remains relatively uncharted. Because of this similar concepts often have different names depending on historical period and geographic location. I will try to be as consistent as possible, but keep in mind that much of the terminology presented here is not definitive and/or standardized.

The pitch sets for the ensembles Gong Kebyar and Semarandana are rooted in the Balinese tonal system (laras) pelog, and is most commonly referred to as Saih Pitu (literally, series of seven). In western terms, this diatonic, seven-tone scale looks similar
to the Phrygian mode when represented in western staff notation. However, this differs greatly from the acoustic reality because there is no standard tuning for this or any particular laras, in Bali.

![Figure 1 - Saih Pitu in Western Notation, with Balinese solfege](#)

Saih Pitu in its modern form (as it is used Semarandana for example) is derived from the seven-tone ensembles from the madya or “middle” period of Balinese music, according to Balinese music theorist, I Nyoman Rembang (1973). By Rembang’s system, the middle period encapsulates musical genres from the time that the Hindu court system was imported to Bali from Java (fourteenth century) until the twentieth century. Musicologically speaking, ensembles from this period developed through these Javanese courts. This tonal-system is likely to be of an entirely different lineage and should not be confused with that of older seven-tone ensembles (from the tua or ancient period). (Richter 1992: 196) These ensembles are, namely, Gambang, Luang, Saron, and Selunding. (Schaareman 1992: 177) As mentioned earlier, the Semarandana ensemble evolved principally as a combination of Gong Kebyar and the madya era gamelan ensemble Semar Pegulingan. It is assumed that the pitch system for Semar Pegulingan was heavily influenced by another court genre of the same era, known as Gambuh. The transposition of works from Gambuh to Semar Pegulingan may have begun as early as

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24 This shorthand is taken from Tenzer 2000. The full name for each syllable is pronounced by adding d-ng to the given vowel, thereby “i” becomes “ding,” “o” becomes “dong” etc.
the 16th Century, and it is said that much of Semar Pegulingan's core repertoire comes directly from Gambuh. (Rai 1996: 81)

To dig much deeper into the origins of the Gambuh tone system brings up issues of cosmology and conceptualization that are difficult to discuss in any sort of concrete manner. In the esoteric texts Aji Gurnita and Prakempa, the solfege of the two major tuning systems are presented as the result of the mystical pairing of syllables. These solfege pitches are ding, dong, deng, dung, and dang (listed in scalar order). These pitches correspond to the four cardinal directions as well as a central point. Each pitch is also associated with specific deities, colors, numbers, and moods. The added pitches deung, and daing fit into this scheme as ordinal points in between. In Gambuh and Semar Pegulingan, these seven pitches are divided in to five note sub-sets known as teteket or patutan. In transitioning from Gambuh, to Semar Pegulingan, to Semarandana many of these sub-sets have remained the same, although some modal classifications differ between scholars as well as between local villages. Due to the flexible intonation of the bamboo flutes, a mode in Gambuh may sound radically different from the same mode in Semar Pegulingan, or Semarandana. In modern practice the modes are created by counting 3 consecutive scale degrees, and then by skipping a note and counting 2 more consecutive scale degrees. According to one interpretation, the solfege works like a “movable ding” wherein the same order of syllables is transposed starting with the lowest pitch of the trichord.

<table>
<thead>
<tr>
<th>Scalar order</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>C#</td>
<td>D</td>
<td>E</td>
<td>F#</td>
<td>G#</td>
<td>A</td>
<td>B</td>
<td>C#</td>
</tr>
<tr>
<td>Selisir</td>
<td>I</td>
<td>O</td>
<td>E</td>
<td>U</td>
<td>A</td>
<td>I</td>
<td>O</td>
</tr>
<tr>
<td>Slendro Gde</td>
<td>I</td>
<td>O</td>
<td>E</td>
<td>U</td>
<td>A</td>
<td>I</td>
<td>O</td>
</tr>
<tr>
<td>Baro</td>
<td>A</td>
<td>I</td>
<td>O</td>
<td>E</td>
<td>U</td>
<td>A</td>
<td>I</td>
</tr>
<tr>
<td>Tembung</td>
<td>U</td>
<td>A</td>
<td>I</td>
<td>O</td>
<td>E</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>Sunaren</td>
<td>U</td>
<td>A</td>
<td>I</td>
<td>O</td>
<td>E</td>
<td>U</td>
<td>A</td>
</tr>
<tr>
<td>Pengenter*</td>
<td>E</td>
<td>U</td>
<td>A</td>
<td>I</td>
<td>O</td>
<td>E</td>
<td>U</td>
</tr>
<tr>
<td>Pengenter Alit*</td>
<td>O</td>
<td>E</td>
<td>U</td>
<td>A</td>
<td>I</td>
<td>O</td>
<td>E</td>
</tr>
</tbody>
</table>

*These are theoretical modes that do not exist in any surviving Gambuh, or Semar Pegulingan repertoire. These modes were named by Nyoman Kaler (McGravv 1998: 4, Tenzer 2000: 28, Vitale 2002: 61)

Table 2-Balinese Modal System based on Saih Pitu

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25 This term refers literally to the act of “closing” certain holes on the Gambuh flutes to create the modes.
Among foreign scholars as well as in Bali, the names and syllables for each mode are not standardized. The above chart shows one possibility. Pitches played between deng and dung (deung) as well as between dang and ding (daing) in Gambuh and Semar Pegulingan typically function as pemero tones. These tones are used in a restricted manner. In Semar Pegulingan, pitch deung has a melodic quality of “pushing” (penyorog) while pitch daing has quality of “sweetening” (pemanis) (Rai 1996: 97).

Interestingly enough according to Richter, the order in which these solfege tones are presented differs between the Prakempa and the Aji Gurnita. There are also discrepancies in these documents as to which pitches are associated with which directions. This makes it difficult to connect these cosmological associations to contemporary musical practices.

All of the musical examples coming from the genre Gong Kebyar are based in the Balinese mode known as selisir. Selisir can be abstracted from the Saih Pitu model in the previous example as pitches 123-56-, in transcription as western pitches C#, D, E, G#, A or in Balinese solfege as ding, dong, deng, dung, dang (i, o, e, u, a in short hand). There is one example from gong Semarandana. That excerpt uses the mode Pengenter.

Elaboration Types

The vocabulary for elaborating a given melody is incredibly varied. However, we will notice in all cases the prevalence of the interval ngempat as a primary consonance, which unlike other dyads does not obscure the clarity for melodic direction of a given
elaboration. Elaborations break down into two distinct categories: “un-fixed” or “improvised” elaborations and “fixed” or pre-composed elaborations. The term “improvised” must be used cautiously. While these elaborations are composed in performance by the player or players themselves, they are guided by a number of factors such as the style, pitch relationships with respect to colotomic structure, as well as the vocabulary of idiomatic riffs and gestures that are normally associated with the particular instrument. “Fixed” elaborations are usually composed during the rehearsal process and are taught by either the composer or the lead drummer. They are distributed among the instruments as follows.

<table>
<thead>
<tr>
<th>Elaboration</th>
<th>Un-fixed</th>
<th>Fixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrument</td>
<td>Ugal, Suling, Rebab,</td>
<td>Pemade, Kantilan, Reyong</td>
</tr>
<tr>
<td></td>
<td>Trompong, Reyong</td>
<td></td>
</tr>
</tbody>
</table>

Table 3- Elaboration Types

My analysis is primarily concerned with fixed elaborations, so I will not be dealing with un-fixed elaborations at all in this section.

Fixed elaborations may be further broken down into interlocking and non-interlocking elaboration styles. The former are so common and so idiomatic to Balinese music that three scholars have dealt with the topic in recent years. I will continue with Tenzer’s classifications, before moving my way backwards to augment his descriptions with concepts and terminology from Balinese scholar I Made Bandem. These interlocking parts are typically divided into pairs called polos and sangsih. Polos under

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27 This only really applies to kebyar and kebyar associated genres. Older ensembles, such as gender wayang frequently use 2nds and 3rds.
28 The reyong plays un-fixed elaborations only under special circumstances. This will be dealt with in more detail shortly.
normal circumstances tracks the melody more closely than *sangsih* and includes the melody tone in its part. *Sangsih* (which literally means “following”) fills in the gaps. This typically results in a continuous stream of notes and can be executed at very high speeds. The elaborations here are all heterophonic in that they align in unison with the *pokok* every 2 beats. Tenzer’s index of interlocking elaboration styles is as follows:

**Norot** (or *Nyok Cok*, in Vitale 1990)- associated with the sacred and classical *Gong Gede* repertoire and characterized by neighbor motion between the *pokok* tone and its upper neighbor. This particular style of elaboration is interesting because it prepares the arrival of the impending *pokok* tone by only three subdivisions before the beat (the pick up gesture, before beats 3 and 5). For a *pokok* such as this, other styles of interlocking use patterns that are more melodically varied. This potentially imbues *norot* with added sense of stasis, because it implies the previous the *pokok* tone longer than the other styles. Coincidentally or not, this style is most prevalent in *lelambatan* repertoire, which is derived from the word “lambat,” meaning “slow.”

![Figure 2- Norot](image)

**Nyog Cag**- new to *Gong Kebyar*, characterized by a one-to-one alteration of attack points between *polos* and *sangsih*. 

38
**Ubit Telu** (or **Kotekan Telu**) - associated with *Semar Pegulingan*, and *Pelegongan*, and often oriented around three note modules. *Polos* most commonly uses the *pokok* tone and the adjacent tone either above or below. The pitch adjacent to the *pokok* tone is shared. And *sangsih* covers the third remaining pitch. According to Tenzer (2000: 224) If the pattern is symmetrical (generally two beats long) it must:

1) Have a range of three adjacent scale tones (the three-note module)
2) For every four notes, all three notes must occur once and one note must occur twice.
3) There are no successive repeated notes with a grouping.29

In fact, these contours are extremely prevalent as *majalan* patterns in *ubit telu*.

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29 There is one exception mentioned in Tenzer 2000: 224, This may be played either as *ubit telu* or *ubit empat*. 
**Ubit Empat** (or **Kotekan Empat**)—same associations as **telu** with a similar orientation. However **sangsih** occasionally coincides with **polos** at the interval of **ngempat**. A major difference between this style and **telu** is that the **polos** plays pitches of the **pokok** tone less frequently than **ubit telu**. However, it is still common for **polos** to play the **pokok** tone in some instances.

![Figure 5: Ubit Empat](image)

According to Tenzer, these patterns are also endowed with kinetic qualities of stasis and motion. Patterns are typically known as being static (**ngubeng**) or “having motion” (**majalan**). A static pattern elaborates melodic motion where the **pokok** does not change. A change in the **pokok** must be accompanied by a pattern that “moves” the elaboration to that new pitch. We will investigate that phenomena in more detail, shortly. All of the patterns shown here are **majalan** because they follow the elaboration to a new **pokok** tone. According to Tenzer’s classification all **ngubeng** patterns are inversionally symmetrical or identical when divided in half. Tenzer goes as far as to derive 48 **ngubeng** patterns and 12 **majalan** patterns for **Ubit telu** and **empat**. This detailed taxonomy is an excellent articulation of the materials afforded to composers when

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30 Tenzer 2000: 220-231
constructing an elaboration. According to Tenzer, it is these syntactical norms that composers passively employ to derive their elaborations.

In some ways, this is the ultimate structuralist analysis of melodic elaboration in Gong Kebyar. In terms of practice, the above descriptions concerning the make-up may be thought of as “well-formedness rules” (Lerdahl and Jackendoff 1983:37) underlying compositional choices. However, beyond these materials, it is difficult for a foreign scholar to reach beneath the objective evidence to unlock insights into the feeling of a given elaboration, although an understanding of topics and kinetic qualities helps to do so.

In 1992, former head of the arts conservatory I Made Bandem published an analysis of 14 styles of ubit-ubitan that were compiled and named by one of Bali’s founding music theorists, Gusti Putu Griya. According to Bandem, Griya collected and articulated a vast amount of knowledge about fixed and unfixed elaborations, assigning them names and describing their characteristic uses. While the accuracy and validity of these examples can in no way be verified, these examples are interesting because they elucidate the different qualities between elaborations that use the same melody and the same style of ubit. In other words, the article articulates differences between two realizations, beyond any overt references to a given style or character.

Bandem offers the following examples from the traditional warrior dance, Baris.
The differences are subtle. In fact the last four beats of each elaboration are exactly the same. While Bandem states that the specific meaning of the term *nyalimput* is unknown, the name gives an impression of “stumbling legs ensared by a rope.” He cites the winding contour of the last two beats as evidence of this effect. *Nyalimpud* is described simply as “considerably curvy.” Other figurations in Bandem’s analysis are described as “sliding,” “scrubbing,” and “carrying with a spoon.” This implies that in addition to topic, stylistic norms, and kinetic qualities, *kotekan* as *gestalten* are endowed with abstract qualities that are perceivable on their own terms. This also means that among a given set of elaborations that meet the same criteria in terms of style, topic, kineticsm, etc., certain elaborations are chosen purely for aesthetic reasons. Therefore elaborations must exist as separate melodic entities, with unique compositional relationships to the *pokok* and such choices are guided by “preference rules” (Lerdahl and Jackendoff: 1983: 43). This adds further testament to the artful and non-derivative nature of composition in Balinese music.

31 “Kaki tersandung akibat terjerat tali.” Translation by the author
32 “cukup belit”
This and many of the kotekan presented in Bandem’s article illustrate an important feature of melodic elaboration in practice that is under emphasized in the literature. Both Baris examples have instances of melodic divergence between the elaboration and the melody. The nyalimput example is slightly more divergent than the nyalimpu one. The elaboration aligns with neliti on only five out eight beats (beats 1, 2, 5, 6, and 8) and almost all of these points coincide with colotomic markers gong and kempur. This is not uncommon at all. Tenzer and others all state that elaborations may track motion in neliti, calung, or jegogan. All one would need to do would be to repeat the ascending motif AIO until beat 5 (which would coincide with the jegogan on pitch O) and reverse direction with the motif OIA until you get to gong. And indeed some gamelan groups use exactly that pattern. But, it is obvious that the “curvy-ness” of this melody gives an added melodic interest. I argue that this interest is at least partly enabled by the contour and by its increased divergence from the neliti at metrically and structurally weak points in the cycle. This divergence perhaps strengthens the arrival to a unison with the gong and kempur.

This means that although the penyacah, calung, and jegogan play melodic abstractions (noun), and the pemade, kantilan, and, reyong, play melodic elaborations (noun), processes of melodic elaboration (verb) and melodic abstraction (verb) involve the use of dissonance in order to achieve a desired melodic effect serving the horizontal cohesion of the parts as individual voices. This is not necessarily a polyphonic conception. However, I want to highlight that the relationship between abstracted parts and elaborated parts is far more than derivative.
Constructing Elaborations

Gamelan music in general has been categorized as stratified heterophony. This blanket term is often used to describe all Indonesian music. While it is not incorrect, as mentioned earlier, it is a dangerously ambiguous concept. The simplest way to elucidate basic features of melodic elaboration is with a musical example.

The above elaboration is from a dance piece from the early 1940s, called Mergapati. The second staff from the bottom shows the core melody or pokok, which is being elaborated by a melody in the upper staff. The bottom staff describes the “colotomic” markers, which are hanging gongs that elucidate certain positions within a melodic period. The low gong always corresponds with the end of the cycle (sometimes called, period). All notes are of equal duration. This is not always the case although many if not most Balinese melodies are in some way distilled into equal durations by at least one instrument in the ensemble. The excerpt is also in simple duple meter. These are common features in Balinese music. Notice that the elaboration actually descends to A.
on the eighth sixteenth note while the pokok ascends to an A on the second half note. This is not an example of contrary motion. This has only to do with the fact that the particular instrument playing the melody has a one-octave range and therefore must ascend to that pitch. The neliti or “melody proper” played by the ugal, typically clarifies the contour in these instances. This melody provides the base coat, or foundation for a variety of pre-composed and/or improvised embellishments. Looking at the whole picture, we notice that each staff functions as a distinct rhythmic stratum or tier. The base melody moves with the slowest durations, the kempli’s attack points divide that pulse in half and the elaborating part further subdivides that pulse into four equal durations. There are three things we need to notice about the elaboration in the upper staff.

1) The patterns used in the elaboration anticipate or prepare the arrival of the impending melody tone. This means that the note aligned with the melody marks the end or culmination of a pattern that began eight notes earlier. This is crucial to keep in mind when trying to group weirder music.

2) It is heterophonic in that it aligns with the melody in unison or at an octave, tracing the exact melodic contour of the tune.

3) The same pattern type is used three times and a different pattern is used to elaborate the gong tone. This is very common to many forms of elaboration in Balinese music. This concept will be shown in more innovative contexts later on.

*Issues of “Feeling”*

As mentioned before, literature on Balinese melody is scarce. Two recent studies that deal with melodic tendencies in depth are found in Rai 1996 and Tenzer (2000: 183-
I avoid “always” or “never” statements at all costs, because the heterogeneity of the material will undoubtedly provide a counter-example. However, I would like to include as many theoretical perspectives as possible in order to enrich the discussion with a diverse field of conceptualizations concerning melodic tendencies. These tendencies elucidate how a given composition “feels” in reference to its melodic construction.

Rai 1996 is a melodic analysis of nineteen pieces in the *Semar Pegulingan* repertoire. The study is in many ways modeled on the work of his advisor Mantle Hood, author of a famous study on mode in Javanese music. Rai transcribes the *pokok* of 19 pieces and organizes them in terms of mode. He is a Balinese musician and scholar and the current head of the *Institut Seni Indonesia* (Indonesian Art Institute). As an intuitive analytical primary, he elucidates four primary melodic tendencies that he names “T formulas.” In the *Semar Pegulingan* repertoires these formulas occur in, “important structural positions in the piece” (Rai 1996: 96). These formulas outline the common melodic trajectories occurring in the musical middleground.

There are four basic contours:\(^{33}\):

\[
\begin{align*}
T_1 &= 4-3-2-1 (a-u-e-o, \text{ in } \textit{selisir}) \\
T_2 &= 1-2-3-4 (o-e-u-a) \\
T_3 &= 1-5-4 (o-I-A) \\
T_4 &= 4-5-1 (A-I-o)
\end{align*}
\]

\(^{33}\) These numbers correspond to the distance (in terms of scale degrees within the mode) between what Rai refers to as the “tonic” of the mode and its “dominant” (*ngempyung*). In *selisir*, these pitches are dong (D) and dang (A) respectively.
Each contour highlights notes 1 and 4 as the primary axes of melodic motion. According to Rai, these four melodic tendencies are sewn into the fabric of the repertoire. This is the first example we have seen indicating the primacy of the interval of a Balinese fourth also known as “kempyung” or “ngempat,” in Balinese compositional practices dating at least until the 16\textsuperscript{th} Century if not earlier.

Another melodic factor in *Semar Pegulingan* are “dance formulas” or what Tenzer refers to as “character topics.” These are melodic cells that signify a certain character in dance or theatrical repertoire. Topics appear prominently and are critically important when trying to understand the compositional choices in pieces from this repertoire. Almost all of the pieces that Rai looks at (and indeed most of the repertoire) were composed to accompany dance and theatre, in which case, clarifying the feeling or the affect of a given character is one of the music’s primary responsibilities. In contemporary *Gong Kebyar*, these character topics survive in instrumental music as musical signifiers associated with characters from this and other theatrical repertories. In Rai’s analysis, the following dance formula is used in the mode *selisir*:

\[ Df1 = u-e-o \]
\[ Df2 = o-e-u \]

In Rai’s analysis, the pitch *dung* is most frequently the *gong-tone* (pitch coinciding with the striking of the low *gong ageng*, marking the end of the melodic cycle) Notice that the pitch *ding* is relatively under used in all of these formulas. According to Rai, pitch *ding* is the “enemy tone” of *Selisir* and should be avoided unless the composer wants to
intentionally create a clear image of a strong and refined male character. A particular example of this is *Gending Lasem*, associated with the legendary King Lasem. Rai takes care to notice that the gong-tone is *ding*, which signifies the Lasem’s character but it retains its status as the enemy tone by being avoided until the *gong*. In other contexts, the pitch should be used only in passing.

The majority of Balinese musicians are probably not familiar with the details of Rai’s work concerning the modal system of *Semar Pegulingan Saih Pitu*. However, they are certainly familiar with the bulk of the repertoire being discussed. If there is any veracity to his analytical approach and his conclusions, we can safely assume that these melodic tendencies, having been in practice for hundreds of years, have forged a passive set of melodic expectations and associations in the minds of Balinese listeners. It is highly likely that these tendencies exist in contemporary music for *Gong Kebyar*, since it is based entirely within *selisir* and is still used for theatre and dance, and for performing a considerable amount of the *Semar Pegulingan* repertoire.

Tenzer’s study of Balinese melody is less concerned with the affective principles of individual pitches, and focuses more on aspects of symmetry and asymmetry within the melodic period. In other words, his primary foci are melodic contours as they revolve around certain structurally important pitches. His perspective differs from Rai’s fundamentally in that Tenzer explicitly states that there is no, “*ur-contour*” (Tenzer 2000: 205). Rai’s analysis boils down to step-wise approaches and departures from structurally significant pitches *dong* and *dang*. Their differences may relate significantly to the plural repertoires of *Gong Kebyar*. Kebyar ensembles frequently perform works from many different repertoires (most avidly *Pelegongan, Semar Pegulingan*, and *Gong Gede*), in a
variety of performance contexts. This rich pluralism within the Gong Kebyar’s performance vocabulary has allowed this single ensemble to acquire the melodic characteristics of these older gamelan types. Tabuh Kreasi as a result, draws freely from these associations.

An important aspect of melodic tendency is kinetic energy. Remember that elaboration patterns are also endowed with a sense of kinetic energy. This kinetic quality can be either ngubeng (static) or majalan (having motion). Using his description of its usage and context, the terms ngubeng and majalan can be used to describe just about any aspect of a composition as well. This can include the “rate of scale tone turnover” in a melody, the rate at which a drummer varies their patterns, the pattern types used in a given elaboration, as well as tempo and dynamics just to name a few. All of these factors conspire to create a multilayered complex of motion and stillness, with different strata elucidating specific and often different characteristics of the neliti (melody “proper” played in a slightly ornamented fashion by the ugal). To get a better sense of what this means, let us return to the Mergapati example.
The melody is *majalan* in the sense that it changes every note, and does not return to any note within the cycle. The *quality* of the elaboration is also *majalan* for that reason. However, the surface texture is quite *ngubeng* in that the same pattern *type* is used for every pitch (except for the gong tone) and is repeated many times. In larger cycles (which can get very long) composers pay particular attention to the balance between these two kinetic affects, trying not to favor any particular sensation when composing the basic melody. The same is often true for elaborations. However, some pieces by virtue of their style topic will by necessity, favor certain elaboration styles.

Tenzer’s analytical model focuses on contour. I will be adopting the same vocabulary in order to articulate certain musical phenomena later on. Tenzer’s notation (after Friedmann) for this elaboration type labels the *pokok* pitch as 0 and numbers the preceding pitches in the pattern 1 or 2, or -1, -2 if the *pokok* pitch is approached from below. This reduces the first three elaborations into two basic contours. \(\{1,0,2,1/0,2,1,0\}\) and its inversion \(-1,0,-2,-1/0,-2,-1,0\).
Tenzer's analysis emphasizes symmetry as it occurs with reference to the "axis" or midpoint of a symmetrical pattern or melody. Because symmetrical tunes of this ilk are entirely in duple meter, this 4+4 grouping reflects symmetries, and grouping repetitions with respect to the meter. However, in this particular style, elaboration patterns are oriented syntactically within a three-note cell that, almost by necessity, involves the pokok as one of its members.

Using the same notation while grouping this pattern with respect to the three-note cell and its relationship to the pokok, a slightly different interpretation arises. The result is three nearly identical cells of uneven length \{(1,0)(2,1,0)(2,1,0)\}. This reading de-emphasizes the meter and accentuates the grouping repetitions with respect to the three-note cell. Inspired by the work of Lerdahl and Jackendoff, it also emphasizes groupings that occur during in the process of listening to a succession of hierarchically organized tones in relation to one another. I should mention that their theories of grouping apply specifically to the cognitive processes among listeners who are familiar with the music they are listening to.

A listener, accustomed to Balinese melodic tendencies will hear stress on the last note of the phrase rather than the first. This note (pitch "0") receives a phenomenal accent by the calung, jegogan, and/or colotomic punctuation. Pitch "0" also occurs in the polos part (the part associated with containing the impending melody tone) this visual and perhaps aural cue (depending on the performers) differentiates that pitch even before the pokok reinforces it. This method of grouping is particularly helpful in asymmetric or changing meters because it does not rely on the elaboration's relationship to the meter.

34 Although this is self-explanatory, I should emphasize that pitch "0" and its ngempat are structurally more important than pitches 1 or 2, because their alignment links the melodic elaboration to the melodic parts in other strata.
This notation, moreover, emphasizes grouping repetitions rather than symmetries among patterns. The primacy of the three-note cell in this conceptualization is also a helpful reference point when trying to group elaborations that do not correspond to any specific pokok tone. In the Mergapati example above, it is also helpful because it characterizes the quality of the motion within the cell, which in this case is highly directed thereby reflecting its “majalan-ness”.

_Elaboration in Practice (polyphonic aspects of melodic divergence)_

In this section, we will see how the objects abstracted by theory are generated in practice. While the theoretical models discussed in the previous section dealt with the “well-formedness rules” of melody and melodic elaboration, this section will focus on the “preference rules” regarding the selective combination of patterns, kinetics, symmetries and asymmetries. The principle focus of the following section is instances of melodic divergence as they regularly occur in this generative process. More specifically, I will deal with the prevalence of passing tones to enhance the horizontal cohesiveness of abstracted parts as well as when they occur as a byproduct of pattern types in elaborations. In the latter case, dissonance is allowed at metrically and structurally weak points as long as it functions appropriately within a kinetic pattern type that is employed for a compositional purpose. Such purposes may be parallelism, symmetry or cadential motion. In fact, dissonance of this kind often increases in 4-beat cadential elaboration patterns leading to gong. I offer these examples as indigenous springboards for the extreme cases of melodic divergence, polyphony, and counterpoint in contemporary _Tabuh Kreasi_.

52
Legong Lasem- Papeson Condong

The *neliti* is often referred to as the "true" or "correct" melody. However *calung* abstractions are rarely entirely derivative from this core tune. In fact, it is entirely common in traditional repertoire for the *calung* to use passing tones at metrically and structurally weak moments to enhance the tunefulness of the *calung* line as an *individual* part. Take the following example:

![Musical notation]

On the middle staff is the *neliti*. On the upper staff is the elaboration played by the *gangsa* section (*pemade* and *kantilan*) and on the lower staff is the melodic abstraction played by the *calung*. The *jegogan* plays every other *calung* pitch starting on *gong*. Specifically, the *jegogan* plays $U::O-E-A-U::$, which is also stressed by the colotomic punctuation. Notice that this melody is inversionally symmetrical at the *jegogan* level.
While the neliti as a whole does not demonstrate this symmetry,\textsuperscript{35} the use of passing tones accentuates it in the calung. In the first half of the melody, the calung approaches each jegogan pitch by its scalar upper neighbor and in the second half, by its scalar lower neighbor. The compositional process of melodic abstraction therefore highlights the inversional symmetry of the jegogan part. This also creates a certain amount of cognitive differentiation between the abstractions, jegogan, calung and the minimally elaborated neliti (the sixteenths are actually grace notes referred to as ngoret).

Also, the parallelism in the neliti facilitates an exact repetition of pattern types in the elaboration. This formula is \{ngubeng pattern, majalan pattern, 4-beat cadential formula\textsuperscript{36}\}. However, the first ngubeng pattern is slightly longer than the second. I divide the sixteen-beat neliti into two halves. This way, we notice that the elaboration patterns cause dissonance at the same metric point per half (neliti pitches 1, 5, 6, 9, 14 and 15). The absence of a passing tone on the fourth beat foils an exact parallelism, however. We can see from this example that passing tones may be used to reinforce symmetries occurring on deeper structural levels as well to differentiate the between the parts. The passing tones in the elaboration function more as the by-product of the pattern types which are identical between halves of the melody. This implies that the repetition or balance of pattern types is of greater compositional importance than strict adherence to melody.

\textsuperscript{35} particularly because it ascends to ding instead of descending to dong on beat 14. This does however create a parallelism between the two halves.

\textsuperscript{36} This particular 4-beat pattern is ubiquitous in music for Gong Kebyar and can also be found in Semar Pegulingan, Pelegongan, and Gong Gede repertoire. It is consistently used to elaborate structurally significant tones (in this case the axis tone, and the gong-tone). It can be used in kotekans telu or empat and has a contour of \{(-2,-1,0)(-2,-1,0)(-1,2,0)(-1,-2,0)(-2,1,0)\}.
As mentioned before, the reyong occasionally performs un-fixed elaborations in very specific contexts. This style of elaboration is called reyong norot and usually occurs while the gangsas are playing norot (although is this not always the case). In reyong norot musicians elaborate not only upon the melody but on norot itself. This relatively simple elaboration style becomes a “template” (Tilley 2003: 14) for four musicians to improvise upon simultaneously on the same instrument. This is truly a unique phenomenon, because like other styles of melodic elaboration the musicians must interlock in order to maintain a continuous melodic thread. To accomplish this all musicians must have already internalized the melody and the norot template with an awareness of which pitches are more structurally important. This knowledge is then applied to the unique and narrow range of pitches at each of the four players’ disposal. This ranges between two and four pitches per player. This improvisation process provides an interesting insight into how tones are ordered hierarchically in the minds of musicians. In the following example we will also notice how the interval ngempat is conceptually equivalent to a unison in that it can also function as a pokok or template substitution (ibid).

Tilley outlines ten basic modes or processes by which musicians choose to expand upon the basic template. These boil down to the processes of altering and then subtracting notes. Much of these concepts have to do with what she calls, “suspensions” and “anticipations.” This means that musicians are playing with the normative set of expectations by playing a specific tone earlier or delaying its arrival by a subdivision or so. According to Tilley, performers also distort the basic relationship between the
elaboration and the melody by choosing to alter the kinetic quality of their pattern types or switching to a different contour lexicon entirely, such as ubit-ubitan.

In reyong norot, players are also permitted to “make use of the ngempat notes that fall within his/her range” (Tilley 2003: 47). Her theoretical categorization is that the pitch ngempat is interchangeable with a unison. However we see in figure 10 that despite incredible busy-ness between the beats, the texture regularly hones in on pokok tones on almost every beat, avoiding the use of other pitches. Ngempat, therefore, is avoided at metrically strong points. It appears the frequent dissonances between the template and the reyong point to the crafting of an artful divergence. Literally, each reyong player is a voice in counterpoint with the neliti, gangsas as well as the reyong players. In fact, according to Tilley’s informant, composer and teacher I Dewa Ketut Alit, the more syncopated each part is, the more “wayah” (mature), it feels. My own teacher I Wayan Sudirana, has also said that the parts shown in the transcription here have a rhythmic relationship to one another. According to Sudi, the lowest part (penyorog) is typically more syncopated, while the second part (pengenter) is less so. In this sense, the pengenter player leads the elaboration, and is perhaps less free to improvise than the other parts. However, as a whole, the reyong elaboration deviates from and re-aligns with the template and the pokok at metrically specific points. This causes a phenomenal accent at metrically significant points when the melodic texture thins out. This results in a unique and intricately formed sort of Balinese polyphony. (See Figure 10 next page).
Kebyar Gandrung - Pengipuk

gangsa, reyong, calung and gong

elaboration group 1
Norot (U-O-U-O-U) 10 beats

elaboration group 2
Norot (I-E-I-E) 8 beats

elaboration group 3
Norot (A-E-A) 6 beats

elaboration group 4
Nyog Cag (O) 4 beats

Gangsa Norot

Reyong Norot

Composite Reyongan

Neliti

Pukok

G
The third staff from the bottom is labeled "composite reyongan." This composite is a conglomeration of the improvised interlocking figurations played by the bottom two players on the reyong. It was generated by collapsing both parts into the pengenter's octave to form a continuous melodic thread. In all but five instances (beats 2, 6, 9, 11, 15) this yields a continuous, and melodically conjunct composite. In those cases, I selected the most logical pitch with respect to the three rules of contour for ubit-ubit (see page 37). This corroborates Tilley's characterization of ngempat's interchangeability with pokok tones. However, it only really applies, here, to metrically weak points. Notice that whenever the lower part is not playing one of these composite pitches it almost always playing its ngempat, or immediately resolves to one of these sonorities. There is one instance of an adjacent scale degree clash on beat 21. However, in this case, the dung in the lower part is a prime example of what Tilley refers to as a "delayed pokok tone unison," (meaning that the dung is just delaying the arrival to the pokok pitch dang on the next subdivision). The implied composite in the pengenter quite blatantly mimics the serpentine contours of ubit-ubit, but in a way that differs quite remarkably from ubit telu or ubit empat. It is remarkable first, because it is an improvised pattern (although it was in an sense "composed" when it was taught to me). The composite creates an almost seamless stream of notes that are grouped quite clearly in terms of ubit style patterns that lead to structurally important pitches. In fact, in all but two instances this composite runs entirely in stepwise motion.

A grouping analysis of the 28 beat neliti reveals interesting interval relationships that may help facilitate such a fluid elaboration.
**Group1**- (UOUOU) 10 beats  
**Group2**- (IEIE) 8 beats  
**Group3**- (AEA) 6 beats  
**Group4**- (O) 4 beats

First of all, each successive *calung* pitch is exactly 2 scale degrees away from the previous pitch. Also the interval between each group is consistently that of a falling *ngempat*. These curious constants combined with the consistent subtraction of two beats from each group, make for a strikingly linear melodic progression.

The improvised elaboration is bewildering in its rhythmic complexity and speed. Performed at tempo this elaboration is usually played faster than 200 bpm. After filling in the composite, I grouped the patterns in terms of the pitches they elaborate. By indexing the contours, we see that the contour vocabulary is quite limited (see figure 11). Notice that contour use is even more restricted per group, in that each group oscillates between only two elaboration patterns. However, this economy of material is dutifully obscured through omissions, anticipations, delays, and syncopations. It is worth noting that the relationship between the elaboration and the *norot* being played by the *gangsas* is tenuous at best.
Figure 11: Contour analysis of reyong norot, pengipuk Kebyar Gandrung.
Each set of contours follows some basic general principles. In general, the first half of each contour is farther away from the impending pokok tone while the second half winds around it. This is evident in that only two contours contain a pitch more than one scale degree away from the pokok (the first contours in groups 1 and 3, which are inversions of one another). The last halves of the other contours also relate to one another in interesting ways. These are the contours \{0,1,-1,0\} and \{-1,0,1,0\}. They relate to one another in that the first contour’s last two members are identical to the other’s last two and the first contour’s first two members are symmetrical with others last two. There is also a curious resemblance between a few first halves. In terms of motion the first halves of group 1 contour 2, group 2 contour 2, and group 3 contour 1 are identical in that they descend by two steps and ascend by one step.

The contour of group 4 is quite different than the preceding contours. It is a motoric repetition of the ascending motif IOE. This is a common and economical way to get between scale tones two steps apart (as in the first contour in group 1). However this contour is slightly more unusual in that the impending pokok tone is the middle tone of the three-note cell. It also is unusual because it actually works against the neliti and the calung until a unison on gong.

This change in elaboration style corresponds with the composed shift from norot to nyog cag in the gangsa part as if both parts are acquiring increased momentum in this last 4 beat grouping before gong. This change in elaboration is made easier by the fact that the melody breaches its local syntax on the both the calung level and the neliti level. The calung does so by remaining on the same pitch. And the neliti does so by continuing an ascending stepwise sequence that began 6 beats before gong.
Although there is apparent chaos on the surface, reyong norot improvisations are accomplished through quite economical means. This chaos is part of the effect, as performers intentionally and artfully distort their source material (neliti, calung, and, gangsa), while still maintaining a consistent and directed melodic thread. The melody is then elaborated doubly and differently (gangsa and reyong). While the reyong is clearly elaborating a core tune, this idea is polyphonic in that the reyong acts like a sort of “free voice.” This free voice is able to play with the relationship between norot style kotekan and the melody by using an inexhaustible amount of rhythmic and motivic variation through the use of deletions, suspensions, anticipations, etc. This is kept in check by the somewhat limited contour vocabulary that is dictated by the pokok. The resulting texture is a lush “polyphony of heterophonies” (Boulez 1964).

I present these instances of melodic divergence as springboards for the melodic innovations taking place in Tabuh Kreasi today. This shows how innately contrapuntal compositional processes are driving composers to increase the rhythmic and melodic difference between parts in different strata in order to explore new sonic territory. In some extreme cases, this completely breaks down the fundamental concepts elaboration and abstraction, or in a sense fuses them with contrapuntal ideas, such as voice-exchange, thereby forging entirely new musical concepts.
Chapter 4 Innovations in Modern repertoire

Uneven divisions of the tactus

Balinese music from the 1400s until the present day\(^{37}\) has been almost exclusively in duple meter. In cases, where the music is based on a cycle of odd-numbered beats, the division of that basic pulse is always duple. This is not the case in Western music, especially in contemporary western music where odd-numbered groupings of every kind are practically a pre-requisite. Two recent Tabuh Kreasi have taken direct inspiration (in one case) and direct quotation (in another) from western compositions for Balinese gamelan that make use of this. In each case, the Balinese composer had worked closely with the western composer and (unbeknownst to the western composer) took interest in the novelty of their approach. Coincidentally, both pieces feature these uneven divisions of the tactus in their *gegenderan*\(^ {38}\). The first example was composed by I Dewa Putu Berata in winter 2004, for the piece *Lemayung*.

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\(^{37}\) According to Tenzer 2000: 246-47, melodies of symmetrically divisible lengths are associated with music from the "middle" (1400-1900) and "new" (1900-now) periods of Balinese music while "old" music (pre-1400) is associated with melodic asymmetry.

\(^{38}\) a section of a piece which features the gangsa section (meaning the reyong, ceng-ceng and drums are absent). See Vitale 2002 p.39 or p.28 of this thesis.
The elaboration has a conventionally heterophonic in relationship to the pokok. The elaboration consistently tracks movement in the jegogan (white noteheads denote jegogan tones) by meeting in unison every four beats. The elaboration also aligns with the melody on the beat after the jegogan (except in measure 3, where the interval is ngempat) but only aligns with pokok tones in the second half of the bar in the first measure and third measures. While intentional or not, there is regularity to this in that the elaboration aligns at a unison with the melody on beats 1-2-3-5 and 6 of every eight-beat grouping. This eight-beat periodicity is defined by the each repetition of the jegogan isorhythm, which in terms of half beats is 8+5+3. On beats 4, 7, and 8 of these groupings

39 More info on Lemayung can be found at http://www.kalakutagofanach.com/lemayung_paper/lemayung_web.htm
the elaboration is melodically divergent from the *pokok*. While the elaboration generally follows the basic melodic shape of the *pokok* there is an interesting moment of contrary motion on beat 10 when the elaboration meets at a unison on F# then ascends to a B, while the *pokok* descends to an E.

From the standpoint of contour this elaboration is far from traditional. In the previous section remember that elaborations tracking the *jegogan* will often rely on some combination of *ngubeng* and *majalan* patterns. The elaboration here approaches the downbeat of each bar in an irregularly serpentine manner using contours that cannot be rationalized as possessing either quality. The only apparent consistency is the ascending contour motive \{-2,-1,0\} used to approach the *jegogan* tones every four beats. Notice that the approach to *gong* is different than the approach to the other *jegogan* tones. This Balinese syntactical convention will be seen in several musical examples later on.

The *kotekan* from *Lemayung* was directly influenced by the piece, *Banyuari* composed by Michael Tenzer for the American gamelan group *Sekar Jaya* in 1992. In Tenzer's own words, the piece was his, “most radical gamelan piece at the time\(^\text{40}\).”

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\(^\text{40}\) quote taken from his personal website www.interchange.ubc.ca/mtenzer

Figure 13- *Banyuari* quintuplet *kotekan*
Immediately we notice one glaring similarity. Both kotekan divide the basic pulse into five equal subdivisions. That feature alone gives the melodic motion in each example a similar quality. Most of Tenzer's kotekan adheres to stylistic features of ubit empat, making occasional use of thirds. In a purely musical sense, something about Tenzer's kotekan sounds and feels more "conventional" than Berata's (although keep in mind Banyuari was composed almost a decade and a half before Lemayung, when such rhythmic devices were basically unheard off).

The reason for stark differences musically may boil down to differences in how most Balinese and western composers compose. Tenzer almost certainly notated the entire score Banyuari ahead of time, calculatedly manipulating the musical material in the intellectual manner taught to him by his cultural forbearers. Dewa Berata may have composed one of two ways. Either he wrote the pokok first and composed a polos part to accompany it, while the sangsih was probably worked out later in the process of teaching the piece\textsuperscript{41}, or there was something that he particularly liked about that polos and then he derived a suitable pokok from that. This may account for the "tunefulness" in Berata's polos. In either case there is a difference in approach (undoubtedly the result of culturally related habits toward music) that is evident in the musical text. Dewa's kotekan is born of generative principles while Tenzer's results more from principles of intellection.

It should also be noted that another Balinese composer, I Made Subandi, did a similar thing with his 2006 kreasi "Rendered." Prior to composing "Rendered" he had been

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\textsuperscript{41} Interestingly enough, when a friend of asked the composer ro show him sangsih in that kotekan, Dewa was able to make one, but could not actually remember the specific part used in performance. According to my friend, Dewa told him, "only Supar (the sangsih player in their group) knows that part."
working with American scholar and composer Andrew McGraw. McGraw and Subandi collaborated on a piece for Subandi’s group that included a gegenderan where the basic pulse was a dotted-eighth note. The following year, Andy returned to Bali to find that Subandi had taken large chunks of his gegenderan, essentially verbatim and assimilated them into several other works. For a foreign composer of gamelan music, such thievery may in fact be the ultimate compliment.

*Polyphonic Forms of Melodic Elaboration*

While the innovations in the first two examples are rhythmic, the following examples illustrate melodic innovations involving increased melodic independence between parts (or strata), as well as increased interdependence between parts within a single stratum. The latter process effectively creates new strata between elaborating instruments while the two processes combined challenge the idea of melodic abstraction and elaboration, making it difficult to analyze the music in a heterophonic framework. The order of analyses will follow these musical trends in a roughly chronological fashion.

*Lebur Saketi and Sruti Laya- I Wayan Yudane*

The first two examples come from the composer I Wayan Yudane. I became familiar with his work from two sources. While studying in Bali, several young Balinese composers mentioned Yudane’s work as being particularly influential upon their compositional practices. Yudane is a self-consciously radical composer famous equally for his avant-garde works for *Musik Kontemporer* as he is for his *kebyar* compositions.

\[42\] Andrew McGraw personal communication May 2006.
Coming from a musical family, Yudane studied traditional music as a youngster and later studied composition in Jakarta before returning to Bali to finish his degree at STSI Denpasar. (McGraw 2005: 363) Yudane is known as individualistic composer, and is outspoken in his critiques of the musical establishment in Bali. Despite some artistic differences with the establishment, his compositions were a yearly fixture at the Bali Arts Festival from 1992-2000. In 1995 he won first place for his composition, Lebur Saketi. This is a considerable achievement for a young composer who must compete with established composers from previous generations whose work often dominates the competition.

The piece has already received some scholarly attention in Harnish 2000 as well as McGraw 2005. Aside from melodic innovations the piece is noted for its innovative approach to tri angga form (Harnish 2000: 19). Yudane intentionally inverted the conventional formal structure by placing what is usually the last third of a piece (pengecet) at the beginning. McGraw discusses some of the melodic innovations (particularly in the gegenderan) in more detail.

He describes the relationship between voices as, “a contrapuntal texture of seven lines” (ibid: 349). Specifically he is referring to the melodic independence among elaborating instruments (ugal, pemade, kantilan, and penyacah) as well as among the abstracting instruments (calung, and jegogan). In a basic sense the normative relationship of rhythmic density between parts is maintained. The jegogan operates primarily in half notes and quarters. The calung works at quarters and eighths while the penyacah is in eighths and sixteenths, and the gangsas are in sixteenths only. The

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43 for direct quotes see McGraw 2005: 52, 55.
internal subdivisions of the eighteen beat period are most clearly marked by durational
accents in the jegogan part (half notes on beats 1, 4, 10, and 14) which divide the
gegenderan into four unequal units labeled ABCD). These internal subdivisions are
reinforced by unisons in the penyacah and calung. While holding the parts to syntactical
norms in those terms, Yudane approaches these points of convergence with a high degree
of rhythmic independence by giving each instrument an individual voice. They are
further differentiated from one another in terms of phrase length. For example, phrase C
in each voice elaborates the pitch C# or ding, however the penyacah phrase is slightly
longer than the other two parts.

Figure 14- Lebur Saketi  
Melodic relationship between jegogan, calung, penyacah (gegenderan)

In the above transcription, each of four jegogan phrases are labeled, A through D. It is
important to notice that I have created retroactive groupings because, as I said earlier, in
Balinese music points of metric stress denote the end or culmination of the pattern
preceding. So unlike western grouping theorists who would label the durational accents
in the jegogan as “new beginnings,” I am labeling them as “explicit endings,” in

44 This transcription differs slightly from Harnish 2000: 18 and McGraw 2005: 354. In both of their
transcriptions the fourth jegogan pitch is dung. However, in my recording I am almost certain it is pitch
dang.
accordance with Balinese modes of melodic conceptualization. Hopefully this will help
make sub-surface musical phenomena more apparent. Also I pay less attention to note-
by-note phenomena, choosing only to look at the relationship between pitches at points of
metric stress and preceding the gong. The relationship between phrase groupings will be
discussed generally in terms of contour and pattern units.

Here is a breakdown of the general characteristics of each phrase. In phrase A, all
parts generally hover around pitch deng. The jegogan part elaborates the pitch by
moving stepwise to its upper neighbor dung. The calung moves sinusoidally to both the
upper and lower neighbors, while penyacah plays straight dengs in dotted eighths against
the beat. The difference in contour between the calung and jegogan is interesting in that
the lower pitched instruments complete one half of a single wavelike form while the
higher pitched instruments (which vibrate roughly twice as fast in terms of frequency)
complete the waveform in diminution.

Phrase B is more majalan in character, and brings all three parts down one scale
degree to pitch dong. However each part descends differently. The calung again mimics
the contour of the jegogan in diminution, but in such a way that the parts converge on the
last two beats of the phrase. The penyacah melody repeats the same oscillating pitch
sequence as the calung ([e-o-e-u] starting from the third pitch in phrase A to the fifth
pitch of phrase B) in syncopation as well as rhythmically out of phase. Thus, the overall
effect is that of commentary on the calung rather than a duplication of it. The penyacah
then adopts the characteristics of a gangsa ubit polos part on the last three beats.

In phrase C, the pitch ding is anticipated by the calung and penyacah, which is
perhaps why the jegogan melody hovers around pitch ding using the scalar lower
neighbor in a ngubeng fashion similar to phrase A. Again, the calung mimics that basic contour of the jegogan in diminution, but in a way that purposefully offsets their attack points until the last pitch of the phrase. The penyacah however maintains the ubit pattern (which, coincidentally or not, is also a further diminution of the calung part) that in the presence of a complimentary sangsih would elaborate pitch ding in a ngubeng fashion (although the contour is quite majalan) for four full beats (although it would arrive on ding one beat late). See the example:

![Sheet Music]

Figure 15- Lebur Saketi, penyacah phrase with hypothetical sangsih

Phrase D differs from the three previous phrases for a few reasons. First of all, the calung aligns with each attack point in the jegogan. The previously syncopated penyacah cools down to a steady stream of eighth notes elaborating the calung and jegogan parts in a simple, heterophonic fashion. This shift in gears puts special emphasis on this last four beat phrase leading to gong, thereby highlighting the pitch that coincides with the gong in a special way. This feature was also evident in the Legong, Kebyar Gandrung and Lemyaung examples.
What does this all amount to? We notice that although this is a radically new way of orchestrating these instruments, the parts are bound to one another in a way that reinterprets existing modes of composition in Balinese music. For example, the basic process of stratifying voices in terms of rhythmic density has remained intact. However, Yudane has chosen to differentiate between the parts through syncopation and differing phrase lengths, which combined create increased melodic divergence. Like the Tenzer and Berata examples, this music is heterophonic in that all three parts adhere to the basic contour of the jegogan part. However, both the calung and the penyakah make frequent deviations along that basic trajectory. The deviations in contour, rhythmic differentiation, registral separation, and horizontal cohesiveness (singability) all show increasingly polyphonic tendencies, while the basic melodic conception is still heterophonic.

However, there is one melodic event that distorts the basic heterophonic model. That is the anticipation of pitch ding by the calung and penyakah which may the be the reason jegogan phrase C elaborates ding in a nguben fashion as if to acknowledge the calung and penyakah's arrival on that tone (beat 11 in figure 14) as an official melodic shift. In a normative context such a melodic shift would coincide with a jegogan pitch in order to reinforce the melodic importance of that particular point in time. This momentarily distorts the basic hierarchy between voices by allowing an upper voice to, in a sense, “call the shots.” The composer could have easily given a quarter note to pitch dong and given a half note to pitch ding, which would have placed clearer emphasis on the arrival to that pitch, but it seems his intention was to obscure its arrival and prolong the revelation of its importance until a few beats later.
Sruti Laya

Sruti Laya was composed in 1999. Like Lebur Saketi, it was commissioned by the Bali Arts Festival and again won first prize for best composition. Similar to Lebur, the piece makes extended use of seconds and thirds as well as intricately woven melodic lines. The gegenderan of this piece is similarly polyphonic. In addition, the final two minutes of the piece feature rhythmically active orchestration between the suling, penyacah, calung, and jegogan. The excerpt is unusual because of its slow tempo, quiet dynamic level, and the complete absence of kendhang, ceng-ceng, pemade, kantilan, or reyong. Also the melodic fragments that are exchanged antiphonally between the calung and penyacah do not repeat over the course of three 36-beat gong cycles. Remember this part of a piece is usually reserved for the pengecet and pekaad, which are typically at a brisk tempo and involve shorter melodic cycles. Yudane’s choice of texture quite is quite blatantly oppositional to the formal expectations of Tabuh Kreasi Baru, and such deviance rarely gains acceptance by the musical establishment45.

In addition to being texturally novel, the excerpt exhibits contrapuntal writing that is quite unusual for Balinese traditional music, and as far as I know, does not refer to any indigenous musical styles in Bali. I can only surmise that Yudane’s influence (either directly or indirectly) is Western classical music. The most striking examples of contrary motion exist between the jegogan and suling voices, which provide a tonal canvas within which the penyacah and calung perform through-composed variations over the course of three gongan.

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45 Although according to his personal website (http://hey-joe369.tripod.com/yudane/), Yudane may chalk his victory up to the fact that he’d already won six times before.
In the reduction we notice that the jegogan and the suling meet in unison on every other jegogan tone, but the suling ascends stepwise by two scale degrees coinciding on the dissonant interval telu in bars 2 and 4, and the abnormally dissonant adjacent scale tone dang in bar 6. By looking at the transcription alone it appears that there is an overall “X”-like shape to the period, which indicates the consistent use of contrary motion between the outer voices. However, this diagnosis must be qualified.
Sruti Laya
(from 9:42-)
I Wayan Gede Yudane

Suling

Penyacah

Calung

Jegogan
Figure 17- Sruti Laya from 9:40 until the end, full transcription
As mentioned in the previous section, octave displacement is frequently used by pokok instruments to reinforce pitches of a neliti. This means that approaching a unison or an octave in contrary motion does not necessarily indicate melodic independence between parts. More often than not, it is the result of a neliti descending below pitch ding on the ugal, which forces the calung and jegogan to leap up because ding is the lowest pitch on these instruments. Because the ranges of the gangsas, and reyong are all different, elaborating even the most basic melody can easily create a densely contrapuntal texture full of contrary motion between parts. However, this contrariness exists only on the surface, as a by-product of idiomatic practicalities resulting from differing ranges among the instruments\(^{46}\). Such an arrangement is referred to as “first-order vertical relations” (Tenzer 2000: 55-57). Of course, in standard repertoire it is easier to discern whether or not the neliti ascends or descends to a given pitch because the extended range of the gangsas (or at the very least ugal) will often clarify the contour in their elaboration. However, this excerpt lacks that clarity. For example in bar 3, the penyacah and calung parts use both high and low dang while the jegogan uses its only dang (high), and the suling uses low dang.

I have indexed the pitches used at the ends of phrases. These are organized within each 12 beat jegogan group. This reveals that while the calung and penyacah parts are not embellishing the jegogan or suling in any heterophonic way (although the relationship between the suling and the jegogan may be considered loosely heterophonic with an abnormally high rate of melodic divergence and dissonance.) they still tend towards certain pitches. For example, both the penyacah and calung spend a great deal

\(^{46}\) Of course, its entirely possible that in the course of gamelan’s development, differing instrument ranges were favored because they help facilitate a fuller and livelier orchestral texture.
of time on dong whenever there is dang in the jegogan. Also the jegogan guides the constellation of these pitch sets although it is unclear if they are derived intuitively from a Balinese hierarchy of pitches (based in Balinese fourths) or loosely inspired by western ideas of tertian harmony.

**Group 1**-jegogan pitch ding: a,i,e  
**Group 2**-jegogan pitch dang: o,e,a  
**Group 3**-jegogan pitch dung: u,a,o

It is clear that the same three pitch sets in the calung and penyacah, and suling are used consistently in coordination with each jegogan pitch. If we adopt another notation system from set theory, all three pitch sets boil down to the same trichord \{0,1,3\} if put in prime order\(^{47}\). Interestingly enough, in each group the relationship between pitch “0” of the trichord and the jegogan pitch is different. (Group 1: pitch 0=jegogan pitch -1 scale degree, Group 2: pitch 0= jegogan pitch -2, Group 3: pitch 0= jegogan pitch).

However, there is a tendency within each group to want to complete the trichord. For example in group 2, when the jegogan and the suling are playing pitches dang, and ding, both penyacah and calung emphasize pitch dong for the entire six beat period.

One reason that particular pitch aggregate works from a compositional standpoint could be that if reordered they represent a series of stacked ngempat or Balinese fourths, which is a standard interval used when elaborating pitches, although its use is often strictly guided by the stylistic conventions, and would never be done like this.

\(^{47}\) Prime order means that the pitches are arranged in such a way that the interval between the lowest pitch, “0” and highest pitch, in this case “3” is the smallest interval possible.
However, I find that interpretation unfavorable because the “root” of the *empat* does not correlate to any of the *jegogan* pitches. Looking at the texture alone it is entirely possible that Yudane was inspired by western modes of composition. In which case the changing pitch sets could be interpreted as “harmonies,” which are relatively stable in group 1 (sounding similar to a major triad in first inversion) then become slightly more dissonant in group 2 (similar to a major triad with a suspended 4th), then reach an apex of dissonance in group 3 (with the tritone and the minor second) before resolving to the stable sonority of group 1.

While it is difficult to reach any definitive conclusion about what if any rules govern a musical example like this, it is safe to say that it represents a continued effort to differentiate between the various melodic instruments as well as to reinterpret their traditional roles within the ensemble. In *Sruti Laya*, the *jegogan* is no longer reinforcing
a core melody and is instead providing a tonal landscape for a variety of pitch sets. The fact that these pitch sets change in coordination with changes in the jegogan indicate that the composer was motivated by some sort of polyphonic impetus that involves decorating the jegogan pitch with no fewer than two other pitches. It is however difficult to assess why the composer chose those specific pitch sets to accompany the jegogan pitches. It is entirely likely that the composer was passively or even consciously motivated by western styles of composition and western tonal harmony. Bali has its fair share of popular music, movie soundtracks, and garage bands. The sum of these influences could very well be seeping into the intuitive compositional sensibilities of contemporary composers. In this case, the steady increase of dissonance right before gong and the return to stable sonorities with the gong may not be a mere coincidence. It may be evidence of two musical vocabularies merging at their points of compatibility.

Semayut- I Wayan Sudirana

Sudirana is one composer out of a new generation motivated equally by their admiration and respect for traditional and ancient music and their desire to revitalize and reinvent contemporary traditional forms. Like others of his generation, he feels that certain aspects of Balinese music have become so rigorously codified that they threaten to stagnate. He has sought in his own work a balance between adhering to the compositional mandates of institutions, and finding his own creative voice. A member of the Sanggar Cudamani, Sudirana has toured and performed internationally as well as collaborated with countless musicians from other musical traditions. Also, as a guest

48 Personal communication July 2006.
artist in residence at the University of British Columbia he has had even more exposure to the western classical tradition, other world music traditions, and gained outsider insight on his own culture. Such exposure has undoubtedly influenced his creative work in the process. *Semayut* was composed in 2003 as a commission for the Bali Arts Festival.

Sudirana himself is a fan of Yudane’s music and has cited him numerous times as an influence. In the two of the examples we will look at, the influence is quite clear. The first example comes from the introduction. Typically *Tabuh Kreasi* open with loud virtuosic passages often involving *kebyar* texture or some kind of virtuosic statement from the *gangsa* section. These function to establish the competing group’s ensemble virtuosity. Sudirana’s introduction is remarkable in that he opts instead for an understated, intellectual, and unusual texture highlighting the darker timbre of the *pokok* instruments and *suling*, before crashing into the requisite *kebyar*.

![Figure 20 - Semayut, intro until kebyar](image)

The analysis reveals that we are dealing with music that is much more contrapuntal and polyphonic in its basic conception than the previous excerpts. The excerpt is also an interesting example of modal mixture in that the *suling* melody is in an
entirely different mode (\textit{slendro alit}) than the rest of the ensemble. While traditional Balinese music, specifically that of \textit{Gong Kebyar}'s precursor \textit{Semar Pegulingan} frequently makes use of these non-scale tones (\textit{pemero}), typically their use is much more restricted, and certainly does not involve one instrument playing in a different mode than the rest of the ensemble. As far as \textit{Tabuh Kreasi} is concerned \textit{pemero} have been used at least since the late seventies, and with the advent of the seven-tone \textit{gamelan Semarandana} modal mixture is becoming more common (McGraw 1999: 77). Perhaps one of the most famous examples of modal mixture can be found in Dewa Ketut Alit's \textit{Geregel}, composed for \textit{Sanggar Cudamani} in 2000, where the same melody is played in three different modes simultaneously (Vitale 2002: 43).

Aside from Sudirana's innovative use of mode, the excerpt exhibits considerable independence between parts. Using traditional definitions, no single part functions as a \textit{pokok}. In other words, the parts cannot be boiled down to one core melodic cell. All of the parts are registraIly, rhythmically, and melodically distinct from one another. Unlike the Yudane example there is not one point within the 9 beat period wherein all parts are playing same pitch. Only on the last \textit{jegogan} pitch before the \textit{gong} do the most of the voices align in unison.

Despite the music's densely contrapuntal make up there are still some normative features of Balinese syntax, which may help bind these disparate parts into a compositional unity. The solid lines running through the \textit{jegogan} and \textit{suling} parts illustrate how the two "outer" voices run basically parallel to one another. Also, on the beats before and after \textit{gong} they play in unison (although for the rest of the time they are in two different modes). Also, most pitches coincide at the interval of a Balinese fourth
or its inversion (telu), and very seldom do they collide on adjacent scale tones. However, when dissonances on adjacent scale tones or thirds occur, similar to western counterpoint, these dissonances are often left by step to stable sonorities (either unison or ngempat). Some notable examples of this are labeled with an asterisk. The opening chord is interesting in that the bottom two parts and the top two parts relate to one another in terms of ngempat and the bottom notes of each pair relate to each other in terms of its inversion. Also, the arrows on the analysis illustrate a few examples of contrary motion and voice crossing between the various parts.

Traditional concepts of melodic abstraction and elaboration must be abandoned completely when looking at an example like this. Each part functions as an independent melodic element that is composed with special attention to how it interacts both rhythmically and harmonically with the other parts. It is apparent that Sudirana is picking up where Yudane left off, increasing the use of dissonance while still consistently controlling their usage within the framework of a uniquely Balinese sense of tonality.

The next example comes from the same piece. Directly inspired by the unusual texture at the end of Yudane’s Sruti Laya⁴⁹, Sudi has chosen similar instrumentation with a comparable stratification of the various parts.

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⁴⁹ personal communication March 2007
This example uses the exact same instrumentation as the previous example as well as the Sruti Laya example. All three examples are relatively quiet and involve a high degree of rhythmic activity between parts. Like the Sruti Laya example the voices are stratified in a manner similar to traditional orchestrational practices in Balinese music. There are four basic jegogan phrases within the 16-beat period. These phrases are bracketed with reference to the last note of the phrase. The phrases outline the following progression of pitches (O)[:OEUO:]. The calung, rather than elaborating this basic melody, instead provides a counter melody with an even two beats between attack points, with the exception of the last note before gong and the gong pitch itself, which are each one beat in duration. This sets the calung against the meter in a way with further differentiates it from the other three melodic parts. The calung divides basically into two phrases (A)[:U-A-E-O/U-E-I-UA:]. The rhythmic relationship between the parts is interesting because these core jegogan tones are elaborated by two and three note phrases that prepare their arrival, so on the musical surface it actually appears that the jegogan is moving at a higher rate of rhythmic density thereby reversing its normative function. However, the durational and phenomenal accents at those metric points lead me to interpret only the dotted quarters and half notes as structurally significant pitches. The attack points in the
jegogan phrase are syncopated in a way that seeks resolution on the downbeat of each bar. These phrases end with durational accents on that pitch in that there is comparatively less dissonance at those points metrically (coincidences at a unison and empat are marked in solid lines). This further reinforces the sense of “harmonic” motion outlined by the jegogans. Notice that there is no derivative or consistent intervallic correspondence or contour relationship between the calung and jegogan. Indeed, they were composed as two distinct voices working in rhythmic coordination. The suling and penyacah parts are rhythmically distinct in that they hocket on beats 2, 3 and 4 of each measure. Like the earlier example, the parts are often either a ngempat or telu apart and approach or depart dissonances by step. The parts also favor consonance on metrically strong points. This applies to interpart relationships in general. Both in this example and the previous one, Sudirana is coordinating the voices in an overtly polyphonic manner with Balinese tonal principles in mind.

This excerpt differs from the Sruti Laya example in that Sudirana appears more concerned with the melodic interdependence and horizontal cohesion within parts. There is no clear sense of a homophonic progression of pitch aggregates or “chords” like the \{0,1,3\} set in Sruti Laya. The melodic parts instead change subtly so as not to disrupt horizontal continuity. The organization of these four melodic parts with relation to one another is also in no way random. While they were composed from a primarily melodic perspective, Sudi clearly favors consonances at the interval of ngempat and unison. Less frequently, does he incorporate dissonances at telu and he avoids the simultaneous sounding of adjacent scale tones altogether. And when adjacent scale tones do collide, he often approaches and leaves these dissonances by step. There also a clear design to the
rhythmic differentiation in both *Semayut* examples. The *jegogan* is mildly decorated while the *calung* plays in half notes against the meter. The *suling* and *penyacah* parts are differentiated by their rhythmic density as well as their differing contours. The *suling* follows a very predictable stream of off-beat attack points with neighbor motion on the down beat of each bar. The *penyacah* offers a simple contrapuntal complement to that static contour involving larger leaps and a predictably sinusoidal curve that subtly approaches pitches in consonance with the lower two parts. In general, this sort of polyphony bears some clear resemblances to western polyphonic music, but Sudi’s tonal hierarchy is based on indigenous conceptualizations of pitch relationships in addition to possessing an intuitive treatment of kinetics relative to the *gong*.

**Caru Wara-I Dewa Ketut Alit**

Among North American Bali-philes, I Dewa Ketut Alit has something of a reputation. He first garnered the attention of western scholars with his popular (and popularly distributed) 2000 *Tabuh Kreasi, Geregel*. The piece features dozens of innovations in terms of elaboration, and orchestration and treatment of mode. His music is often dissonant and polyrhythmic. The following analysis of *Caru Wara* will elucidate some ways in which his melodic elaborations and abstractions are rooted in heterophonic concepts of melodic elaboration while also being incredibly contrapuntal and dissonant.

*Caru Wara* was composed in 2005 for the Cenik Wayah Ubud children’s gamelan, for the Bali Arts Festival competition. It should be noted that I Wayan Sudirana is that group’s primary teacher and composer, and it may be no coincidence that his and Alit’s works both exhibit these contrapuntal qualities. While they are too close in
age to guess how they may influence each other, it's a fairly safe bet that Yudane was influential for both of them. Alit is also vocal in his critiques of the musical establishment in Bali. And this may or may not be one reason he spends much of his time teaching and performing abroad. *Caru Wara* itself received mixed reviews from the upper echelon of Bali’s music community.

In truth, the opening of the piece is quite bizarre. Considering, that the piece was written for a children’s ensemble, it is remarkably abstract. In some ways it is reminiscent of an unmetered *gineman*; like the fragmented statements of an early *Tabuh Kreasi* like *Kosali Arini*. However the prolonged soft dynamic and the unconventional interlocking of phrases between *pokok* instruments were enough to draw criticism.

The two examples we will look each come from the same section of the piece.

![Figure 22- Caru Wara Melody 1 with kempli](image)

![Figure 23- Caru Wara-Melody 2 with kempli](image)
In the first melody, notice that:

1) Half of the kempli and melody attack points are syncopated against the perceived basic pulse (or tactus).

2) the syncopations in the melody are mostly coordinated with the syncopations in the kempli (except the last four attack points)

After this melody is introduced, a rhythmically modified (or perhaps rotated) version of melody 2 is superimposed beneath by the jegogan. It is “rotated” in that its essential rhythmic morphology is left intact (3.5+3.5+4) but shifted ahead by 3.5 beats.

We notice that both melodies are coordinated with the attack points of the kempli (for the rotated melody two all but four attack points are coordinated with kempli strokes) yet they are dramatically different in contour and character. In this sense the excerpt is polyphonic in that both voices are horizontally cohesive but rhythmically, harmonically, and registrally distinct. On the third gong, the elaboration is introduced. The middle staff is a transcription of the composed elaboration performed jointly by four players on the reyong.

Figure 24-Caru Wara reyong with analysis
The relationship between the three melodic parts is complex. To make the contours more easily decipherable, the elaboration was re-written without the upper note of the dyads to make the contour more apparent. First we notice that the pattern lengths are irregular. Also, these patterns do not line up with melody tones, in any consistent way, and when they do it is not in unison or at an octave.

As said before, melodic elaborations are composed to prepare the arrival of a melody tone. From this cultural basis, I have chosen to put white noteheads at the end of each phrase on the assumption that the pattern leading to it will be heard as its preparation (I call any stream of continuous durations separated by a durational accent a phrase). This was also done in the Mergapati and Legong examples. Notice that none of these white noteheads align with the melody in unison except for the very last pitch before gong. While discussing these abnormal groupings with Sudirana, he suggested that I look again to see if at any point the elaboration coincides with the melody tone at the interval of a Balinese fourth. Following his lead, any instances of a unison or ngempat was labeled in the transcription (ngempat=k). Notice that 6 of the 13 note-heads align with both a melody note and a kempli stroke and that last white note-head aligns with the melody but not the kempli. The same is true for the reyong elaboration, although this only becomes apparent after close examination. Also notice that the lower two melodies seldom play adjacent pitches simultaneously. They almost always relate to one another in terms of Balinese fourths (more frequently) or its inversion. Another interesting feature in the relationship between the reyong and the melody is what looks

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50 although there are two other unisons that are met in passing and two that coincide with the beginning of a phrase.
like a voice exchange between the pitches dung and dung over the course of the last eleven beats.

![Musical notation]

Figure 25- Caru Wara-voice exchange between reyong and penyacah

This is fascinating evidence if not proof of intricately designed polyphonic music derived from distinctly Balinese musical aesthetics.

The next example comes later in the piece. A grouping analysis of the *gegenderan* using melody 2 reveals interesting symmetries beneath a polyrhythmic and free sounding exterior. The largest of the grouping units (the hyper gongan units) are defined primarily by their relationship to the long ascending sequence that begins on the 24th beat of the excerpt. I label next smallest strata as “large phrase groupings” (LPG’s, for short). The groupings are based largely upon kinds of repetition (except for LPG3, which was determined solely on the basis of its difference from the material in the adjacent groups).
Lastly, I labeled larger phrase groupings as *ngubeng* or *majalan* in terms of both pattern quality and pattern type. See Appendix for a full transcription.

<table>
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<tr>
<th>TYPE</th>
<th>MAJ.</th>
<th>NGUB</th>
<th>MAJ</th>
<th>MAJALAN</th>
<th>NGUB.</th>
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<td>NGUBENG</td>
<td>NGUB.</td>
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</tr>
<tr>
<td>HG UNIT</td>
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<td>2</td>
<td>3</td>
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<td></td>
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</tbody>
</table>

Table 4-pattern types and pattern qualities in the *gegenderan* of Caru Wara.

This revealed a peculiarly symmetrical sense of balance to the elaboration.

Like traditional repertoire, as well as in most of the newer examples, the elaboration is guided by its relationship to gong. Specifically, shifts in pattern quality or type occur as follows:

- **Gong 1**: 2 beats before gong
- **Gong 2**: 4 beats before gong
- **Gong 3**: not at all (but the sequence reverses direction 2 beats before gong)
- **Gong 4**: 4 beats before gong
- **Gong 5**: 4 beats after gong
- **Gong 6**: not at all

We notice that Alit’s elaborations are guided by traditional aesthetics.

Particularly, melodic elaborations are influenced in some way by their metric proximity to the *gong*. In all the examples we see how the gong possesses an almost radioactive quality, mutating and in a sense liquefying contours (evident in the prevalence of *majalan* contours immediately prior to *gong*) as they approach structural points.

Alit’s innovations are interesting in that they subvert traditional models yet faithfully adhere to Balinese conceptualizations melody, time, and kinetic energy. This is
evident in the kinetic balance in the previous example, and the treatment of dissonance in the *reyong* elaboration. These innovations speak to the enormous compositional potential for gamelan music.

**Concluding Remarks**

We have seen how Balinese composers are expanding and developing instrumental music in Bali. In each of the above cases, the composer has taken liberties with traditional musical roles to create lush new textures. There is little doubt that these melodic experiments are a reflection of the rapidly changing cultural terra in Bali. Bali, like anywhere else in the globe, is increasingly saturated with global influences. As a result, composers are getting familiar with more diverse styles of music at younger ages. It is only natural that these external influences find their way into contemporary music. What is most fascinating about these interactions is how various elements of Balinese music (such as, structure, melody, rhythm, and tempo) are adapting and developing to incorporate these new influences.

For example, we have seen several instances in which the abstracting instruments adopt a more elaborate and polyphonic character (like *Semayut*). We’ve also seen elaborations that appear to break entirely from any melodic guidance provided by the *pokok* and *neliti*. Yet, upon closer inspection we notice that these elaborations are in fact linked to other parts both melodically and structurally, and that these links are traceable to indigenous concepts (such as the prevalence of the interval *ngempat*).

I have shown that with respect to various process domains the differences between heterophony and polyphony are indistinct with reference to these melodic
innovations. In these domains there are numerous examples of western-style polyphony that are subject to heterophonic processes. Conversely there are numerous where Balinese music exhibits polyphonic characteristics.

This thesis has dealt with innovations in modern music from a primarily melodic standpoint. Further studies may investigate how composers are re-conceiving approaches to rhythm, form and tempo. Andrew McGraw (2005) has touched on issues of tempo in Balinese Musik Kontemporer. And Tenzer (2006: 205-235) has dealt with aspects of musical linearity in traditional music. If this information was synthesized with reference to developments in overall musical form a greater, more holistic understanding of Balinese music may come as the result.
BIBLIOGRAPHY


__________. (1986) Prakempa: Sebuah lontar Gambelan Bali. STSI: Denpasar:


APPENDIX-C: Wear-Full Grouping Analysis

Shifts in pattern quality and/or type:
gong: 1-2 beats before G

gong: 3 beats before G

gong: 1-2 beats before G (two the sequence reverses direction 2 beats before G)
gong: 3 beats before G

gong: 3-4 beats after G

gong: 6-8 notes