

BEYOND THE MYTH OF EAST-WEST HYBRIDITY:
AN ANALYSIS OF LOU HARRISON'S WORKS FOR
GAMELAN AND WESTERN INSTRUMENTS

by

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Beyond the Myth of East-West Hybridity: An Analysis of Lou Harrison's Works for
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Frequently cited as being among Lou Harrison's most important East-West fusions, the works for Indonesian gamelan and Western instruments have served as emblems of Harrison's distinctive transcultural voice. Yet, as my research shows, treating these pieces as hybrids between East and West creates a limited frame for understanding Harrison's compositional interests. While these pieces outwardly display his life-long interest in Asian musics and his penchant for combining disparate musical styles within a single composition, hidden beneath this timbral juxtaposition lies a compositional complexity far more essential to Harrison's creative process. More than blending East and West, the pieces for gamelan and Western instruments reveal a rigorous interplay between form and spontaneity.

Through close analysis of four of Harrison's compositions—*Bubaran Robert* 1976, *Main Bersama-sama*, *Threnody for Carlos Chávez*, and *Bubaran Robert* 1981—I provide critical understanding of his compositional method. Taking as a point of departure Harrison's stated interest in the friction between the value of freedom and the need for method, my investigation reveals the centrality of melody to his compositional inventiveness. The claim that melody occupied a central position within Harrison's aesthetic outlook has frequently been made, but the tendency has been to equate Harrison's melodic skillfulness merely with an attractive lyricism found in the surface features of his work. My analyses show that Harrison's definition of

melody extends beyond writing “tunes,” as he explored how melody (as opposed to large-scale tonal or harmonic schemes) could create form and serve a central generative function in his music.

Harrison seems to have conceived of the gamelan parts as a kind of framework with certain fixed properties. Each work employs a structural gong cycle, articulates a central organizing melody (the *balungan*), and expresses the principle of pitch coincidence. But within these “rules,” he shows us how multifaceted melody can be in structuring a piece. What these pieces show is the scope of Harrison’s strategies for combining melodies played by instruments from two different traditions. Yet more than simply showing the range of his melodic experimentation, my analyses reveal the gradual development of Harrison’s personal definition of hybridity.

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CHAPTER 1

INTRODUCTION

While interest in Lou Harrison and his music has grown over the last ten to fifteen years, scholarship has largely been confined to biographical details and overarching characteristics of his musical style. More recently, as ethnomusicologists have turned their attention to cross-cultural synthesis, particularly in the area of postwar Western art music, scholars have developed frameworks for categorizing Harrison's (and other composers') transcultural music.¹ Throughout both lines of inquiry, while Harrison's identity as a hybrid composer has been emphasized, the specific ways in which we might understand his "hybridity" have been left open-ended.

In setting out to study Harrison's pieces for gamelan and solo Western instruments, I originally hoped to define Harrison's specific form of cross-cultural "hybridity." In particular, I expected to discover in these pieces how he integrated Asian and Western musical aesthetics, formal principles, and sound resources. Frequently cited as some of Harrison's most important East-West fusions, these works have served as emblems of Harrison's distinctive transcultural

¹ Yayoi Uno Everett postulates seven taxonomic categories of compositional strategies for integrating Asian and Western musical resources based on "specific techniques that are observable in the repertoire spanning roughly between 1945 and 1998" (15). These seven categories fall under the broader terms of transference, syncretism, and synthesis. It is in her sixth category, which refers to works that "combine musical instruments and/or tuning systems of East Asian and Western musical ensembles" and falls under the heading of syncretism, that Everett places Harrison's creative output. In addition to naming Harrison's *Pacifika Rondo* (1963) and *Concerto for P'i'pa and Orchestra* (1991), Everett states, "Various compositions that Lou Harrison wrote for the Javanese gamelan in conjunction with Western instruments, such as *Threnody for Chavez* (1979), exemplify this kind of syncretic process" (18). Yayoi Uno Everett, "Intercultural Synthesis in Postwar Western Art Music: Historical Contexts, Perspectives, and Taxonomy," in *Locating East Asia in Western Art Music*, ed. Yayoi Uno Everett and Frederick Lau, 1-21 (Middletown, Conn.: Wesleyan University Press, 2004).

voice. Yet in the course of my research, I found that the impulse to talk about these pieces as hybrids between East and West has created a limited frame for understanding Harrison's compositional interests. What I came to realize is that while these pieces outwardly display Harrison's life-long interest in Asian musics and his penchant for combining disparate musical styles within a single composition, hidden beneath this timbral juxtaposition lies a compositional complexity far more essential to Harrison's creative process. More than blending Occident and Orient, the pieces for gamelan and Western instruments reveal a rigorous interplay between form and the perceived spontaneity of melody.

The interaction between something planned and deliberate (as Harrison interpreted form) and something spontaneous and free in expression (as Harrison roughly interpreted melody) is central to Harrison's compositional syntax. His own statements pertaining to his personal assimilation of important musical influences suggest as much. In a 1970 interview with Charles Ives scholar Vivian Perlis, for example, Harrison offered the following sentiment:

Schoenberg was a very great influence on me, too—in some ways more of an influence [than Ives], because in addition to the expressive powers in Mr. Ives and *the sense of freedom*, there is *the need for method*. It is to me the friction of the polarity between the free and the controlled that is very stimulating. You have to have both.² (emphasis added)

This sentiment appears frequently in Harrison's comments about the sources of a work's creative possibilities and can point us toward the development of a more revealing picture of the composer and his idiosyncratic voice.

I contend that the crucial hybridity in Harrison's works for gamelan and Western instruments (and, by extension, in all his music) is not the mixture of East and West but the interplay between form and spontaneity (as expressed most often in melodic terms). Through

² Vivian Perlis, *Charles Ives Remembered: An Oral History* (New York: Da Capo Press, 1974), 199.

close analysis of several works for gamelan and Western instruments, I seek to show, in the following chapters, that this new perspective on hybridity allows for deeper critical understanding of Harrison's compositional method. The scholarship on Harrison to date, some of it invaluable, has taken us only so far in understanding the full implications of his compositional aims. To truly grasp the intricacies of the interplay in his music between planned structure and expressive freedom requires detailed analysis, an undertaking that has remained outside the scope of most Harrison scholarship.

What follows in this chapter is an overview of criticism pertaining to Harrison's approach to form and melody, as well as a consideration of the work of those scholars who have investigated compositional aspects of some of his pieces for gamelan and Western instruments. As we will see, the complexities of Harrison's music have heretofore been, at most, mentioned in brief or merely hinted at; in many instances, they have remained undetected. Much of what we have learned about Harrison and his music has come in the form of interviews either with Harrison himself or with those who knew him. Our understanding of Harrison's music thus comes from comments *about* his work rather than from the works themselves. The most insightful Harrison scholarship—by Miller, Lieberman, Spiller, and Alves—senses important aspects of his music and aesthetics, but has not endeavored to consider in close detail the features of individual works. My analyses of four of Harrison's pieces (presented in Chapters 2-5) bring to light the intricacies of Harrison's sophisticated musical mind and ear.

HARRISON AS TRANSCULTURAL MELODE

That music critics and scholars have long been enamored of Harrison's seemingly effortless blending of gamelan and Western instruments is evidenced by frequent references to

his pioneering work in fusing Eastern and Western music traditions, with special mention often made of Harrison's sustained interest in writing for gamelan.³ This high regard has typically taken the form of sweeping statements in praise of Harrison's craft, crediting Harrison with a deep understanding of gamelan principles and a true love for gamelan music. Ethnomusicologist Neil Sorrell states, for example, that, in contrast to John Cage's single attempt to write for gamelan, Harrison "has moved to a position where he feels completely at home not only with the instruments but also with the concepts of the Gamelan."⁴ Taking an almost mystical view of Harrison's contribution to twentieth-century composition, critic and music scholar Wilfrid Mellers contends that, California is "where in the course of time Lou became a composer living between worlds and times."⁵ Continuing, Mellers writes that "This [bridging of worlds] is the measure of [Harrison's] importance, in terms of what he means to his own society and to the world at large: especially since he assumed the mantle of East-West guru on the death of Harry Partch in 1974."⁶

³ See Yayoi Uno Everett and Frederick Lau, "Introduction," in *Locating East Asia in Western Art Music*, ed. Everett and Lau, xv-xx (Middletown, Conn.: Wesleyan University Press, 2004); Jody Diamond, "'In the Beginning Was the Melody': The Gamelan Music of Lou Harrison," in *A Lou Harrison Reader*, ed. Peter Garland, 100-103 (Santa Fe, N.Mex.: Soundings Press, 1987); Peter Garland, "The Music of Lou Harrison: Some Biographical Perspectives (A Preface)," in *A Lou Harrison Reader*, ed. Peter Garland, 6-11 (Santa Fe, N.Mex.: Soundings Press, 1987); Neil Sorrell, "Gamelan: Occident or Accident?" *The Musical Times* 133, no. 1788 (Feb. 1992): 66-68. One notable exception to the generally flattering assessment of Harrison's cross-cultural compositions is found in John Corbett's discussion of the musical and cultural borrowing practiced by composers of the American experimental tradition. Corbett states that Harrison "created works more notable for the craft of their panglobal exotic referentiality—using Indonesian scales and orchestras consisting of both Western and non-Western instruments in rather forced, lushly arranged East-West cultural grafts—than for their intellectual innovation." John Corbett, "Experimental Oriental: New Music and Other Others," in *Western Music and Its Others*, ed. Georgina Born and David Hesmondhalgh (Berkeley, Calif.: University of California Press, 2000), 173.

⁴ Neil Sorrell, "Gamelan: Occident or Accident?," *The Musical Times* 133, no. 1788 (Feb. 1992): 67.

⁵ Wilfrid Mellers, "A New Everlasting Feeling," *The Musical Times* 138, no. 1851 (May 1997): 31.

⁶ *Ibid.*, 31.

Recent explanations of Harrison's personal syntheses have emphasized his insatiable curiosity about the world around him, suggesting that his mixing of diverse interests reveals an overarching aesthetic of inclusiveness that informed nearly all of his work and serves to define his idiosyncratic voice.⁷ According to Leta E. Miller and Fredric Lieberman,

Like percussion, just intonation, Korean music, and Chinese music, gamelan became another tool in his arsenal of compositional resources, providing a means by which he could express a worldview embracing cultural diversity (long before that term had become a cliché). To Harrison the process of composition is a sophisticated game. He encounters a style or sonority that attracts him, eagerly learns to imitate it (what he calls the "Me, too" philosophy), and then combines it with other influences. In the course of creating a new composition, he then selects from his toys ("which I've laid out on a wide acreage"), reassembling them into novel hybrids that, while echoing their sources, nevertheless speak with a distinctive, personal voice.⁸

As Miller and Lieberman intimate, the articulation of Harrison's "distinctive, personal voice" is to be found in aspects of musical expression beyond the obvious blending of various musical styles. I suggest that, while gamelan became another tool available to Harrison, adding to his selection of "toys" and becoming a highly recognizable feature of his inclusive worldview, it offered something more than its Asian origin. Gamelan offered a new formal constraint and its own theory of musical structure, against which Harrison could explore his other driving interest: projecting a sense of melodic freedom.

⁷ Noted Lou Harrison scholar Leta E. Miller relates this expression of diverse interests as belonging to a postmodern aesthetic: "Such works exhibit traits often associated with the postmodernist aesthetic of the late twentieth century: in particular, the combining of disparate geographical and/or temporal influences within a single composition. In Harrison's compositions, a medieval-inspired estampie may rub shoulders with a movement in dissonant counterpoint or with an evocation of the sliding tones of China or Korea. . . . [H]is quilt-like approach to large-scale composition anticipated many of the ideas that were to follow on the heels of his multi-cultural explorations. The goal of unity—so central to nineteenth- and early twentieth-century Western music—has in recent times often been supplanted by an aesthetic of inclusiveness: a philosophy Harrison appropriately labeled 'transethnicism,' and one that kept him constantly stimulated by new ideas without entailing a rejection of older inspirations." Leta E. Miller, "Lou Harrison and the Aesthetics of Revision, Alteration, and Self-Borrowing," *Twentieth-Century Music* 2, no. 1 (March 2005): 106.

⁸ Leta E. Miller and Fredric Lieberman, "Lou Harrison and the American Gamelan," *American Music* 17, no. 2 (Summer 1999): 164.

Miller and Lieberman conclude that the “eclecticism of many of Harrison’s works makes stylistic classification of his output difficult if not impossible. At the same time, the music’s diversity is its most defining characteristic: the musical-cultural mosaic is precisely its essence.”⁹ Yet the authors also point to a compositional thread they perceive running through Harrison’s diverse compositional output. Acknowledging Harrison’s pursuit of eclectic pathways, they assert that “[t]hose pathways have frequently led to expressive melody, whether in the context of his percussion works, his chamber works, or his gamelan compositions.”¹⁰

This claim that melody occupied a central position within Harrison’s aesthetic outlook has frequently been made. Harrison has been both admired and chastised by fellow composers, music critics, and scholars for his commitment to “pouring forth melodies—at a time when length of melody was frowned upon.”¹¹ His own remarks openly acknowledged his devotion to melodic beauty. In a 1987 radio broadcast by WGBH Radio in Boston, Harrison adamantly stated, “To me, there is only one interest in a work of art, and that *is* its beauty. What other interest is there in a work of art? I am unabashedly writing melodies, for example. I am a melode. And continue to be. I love ‘em.”¹²

Harrison’s proud confession “I am a melode” provides an interesting lens through which to view much of his music, but this bald declaration also invites misperceptions of the nature of

⁹ Leta E. Miller and Fredric Lieberman, *Composing a World: Lou Harrison, Musical Wayfarer* (Urbana, Ill.: University of Illinois Press, 2004), 254.

¹⁰ Miller and Lieberman, *Composing a World*, 253.

¹¹ Miller and Lieberman, *Composing a World*, 253. The authors quote from an interview with Robert Hughes on December 12, 1994.

¹² Lou Harrison, *Lou Harrison: An American Music Maker*, University of California, Santa Cruz LCD7857, 2005, compact disc. (Recorded ca. 1987 by WGBH Radio in Boston. Original is audio cassette. Audio archival conversion made by University of California, Santa Cruz Library.)

his engagement with melody. The tendency has been to equate Harrison's melodic skillfulness merely with an attractive lyricism found in the surface features of a work. Speaking admiringly of Harrison's compositional abilities, Peter Garland writes, "What is most characteristic of Harrison's style is that the sense of melody, a constant thread in Harrison's output, is constantly in the forefront of ensemble texture."¹³ Accordingly, he has been characterized as a writer of memorable tunes. But while this widely accepted depiction of Harrison as a "tunesmith" may, in fact, be reasonable, it is limited and possibly even misleading. As we will see in my discussion of the melodic lines he writes for the solo Western instruments in his "gamelan plus" pieces, even these seemingly simple tunes are often elusive in their tonal and rhythmic structures and thus suggest a complexity in Harrison's approach to melody unlikely to be recognized without intense study. More importantly, we will see that Harrison's definition of melody extends beyond writing "tunes," as he explored the ability of melody (as opposed to large-scale tonal or harmonic schemes) to create form and to serve a central generative function in his music.

The frequent description of Harrison as a "tunesmith" seems to have taken hold as a way to differentiate his compositional style from that of contemporary composers writing in the twelve-tone or other formalized compositional methods. What distinguishes his music for many listeners is its seductive beauty, which often seems immediately accessible. In an interview with Harrison biographers Miller and Lieberman, David Doty asserted:

[Harrison] doesn't write music for which one has to read three journal articles before listening. Sonic beauty is always his primary consideration. Many composers (today) don't consider it quite decent to make sonic beauty a consideration—perhaps not even a secondary one. People working with computers and artificial intelligence, for instance, come up with arcane algorithmic schemes that are fascinating to read about. But when you hear

¹³ Peter Garland, "The Music of Lou Harrison: Some Biographical Perspectives (A Preface)," in *A Lou Harrison Reader* (Santa Fe, N.Mex.: Soundings Press, 1987), 10.

the pieces you think, “Maybe I’d better stick to reading the articles and not have to listen to the final results.”¹⁴

The accessibility of Harrison’s music is linked to melody. Miller and Lieberman offer the melodious quality of his compositions as a rationale for his music’s ability to draw an audience:

Intellectual circles in contemporary music may at first distrust the ingenuousness of forthright melodic expression. The concert-going public, however, has a very different response—at times almost a relief that it’s OK to delight in simple pleasures and indulge in melodic sensuousness.¹⁵

Many scholars and critics, in turn, have linked the “sonic beauty” and “forthright melodic expression” of Harrison’s music to his West Coast heritage. Images of untainted coastal shorelines, vast expanses of open space, and other wonders of natural beauty tend to dominate Americans’ perceptions of the West. Musically, these images are frequently translated into a compositional aesthetic that embraces expressive melody, uncomplicated textures, a relaxed attitude toward time, and a look towards non-Western sources for inspiration. While some may argue over whether it is possible to precisely define a West Coast aesthetic, Harrison clearly felt that artistic expression differed on the two American coasts. In a 1973 interview with Winston Leyland, Harrison commented on the cultural disjunction he felt while living in New York:

New York was a very widening experience in many ways. But it also brought me into conflict in some sense because on the West Coast my experience had been that the nearest relation we had as Americans was Asia. You know, San Francisco is close to Asia, whereas in New York, you are just a stone’s throw from Europe. It’s a completely different civilization. So that took some difficulty, made some difficulty for me. When I got back I immediately refelt the connections with Asia.¹⁶

¹⁴ Miller and Lieberman, *Composing a World*, 220. The authors site an undated interview with Doty.

¹⁵ Miller and Lieberman, *Composing a World*, 225.

¹⁶ Winston Leyland, “Winston Leyland Interviews Lou Harrison” in *A Lou Harrison Reader*, ed. Peter Garland (Santa Fe, N.Mex.: Soundings Press, 1987), 72.

Asked in a another interview whether West coast composing is different from East coast composing, Harrison candidly replied that, in the West, “We’re not afraid of sounding pretty, for one thing.”¹⁷

With his unabashed love of melody, Harrison has embodied for many critics and scholars of the late twentieth and early twenty-first century the quintessential West Coast dabbler in music, writing tuneful pieces that, while beautiful in expression, lack a seriousness of approach evident in the works of contemporary East Coast composers. Common inclination has been to interpret Harrison’s melodically driven music as simplistic in design, somehow lacking in a rigorous “method.” Significantly, this charge has been made in reference not only to his Western compositions, but to his transcultural works as well. Discussing the practices of cultural borrowing of composers from the American experimental tradition, John Corbett states:

Though on paper he may have required more specific knowledge of musical traditions than [Henry] Cowell, Lou Harrison too created works more notable for the craft of their panglobal exotic referentiality—using Indonesian scales and orchestras consisting of both Western and non-Western instruments in rather forced, lushly arranged East-West cultural grafts—than for their intellectual innovation.¹⁸

Corbett credits Harrison with a fairly deep knowledge of non-Western musical traditions, but claims that his compositions fall short of representing the particular nuances of a specific tradition. Moreover, Corbett seems to assert that, in striving for an “Asian” sound, Harrison accomplished little in the way of creating original works that expressed “intellectual innovation.” Hearing only a “panglobal exotic” patina to Harrison’s hybrid works, Corbett does not consider

¹⁷ Richard Kostelanetz, “A Conversation, in Eleven-Minus-One Parts, with Lou Harrison about Music/Theatre,” *Musical Quarterly* 76: 3 (Fall 1992): 407.

¹⁸ John Corbett, “Experimental Oriental: New Music and Other Others,” in *Western Music and Its Others: Difference, Representation, and Appropriation in Music*, ed. Georgina Born and David Hesmondhalgh (Berkeley, Calif.: University of California Press, 2000), 173.

the possibility that Harrison's music operates according to his own system of rigor. The assessment made is that of a seemingly larger consensus: that "sounding pretty" is incompatible with complexity or compositional rigor.

Close reading of Harrison's music, however, reveals immense complexities that challenge the common notion of melodic writing as inherently unsophisticated. Inviting deeper examination of Harrison's music, Paul Dresher writes:

Lou is first and foremost a sensualist: concerned with beautiful melody, vigorous rhythm and elegant form. This sensibility informs nearly all his work and it is from this sense that all other facets of his work are derived. If one avoids the seduction of looking only at this level of his thought and delves beyond, what is revealed is an imagination and rigor worthy of the analytic attentions of a 1960's issue of *Perspectives of New Music*. The (false) anomaly arises from an assumption (really a prejudice) that beauty of melody, physical rhythm, clarity and simplicity of means are somehow anathema to musical rigor and the values currently fashionable in new music circles.¹⁹

Dresher identifies a persistent critical bias shared by those who have misunderstood the nature of Harrison's melodic invention. Though Dresher does not support his observations with analytical evidence, the analyses I shall present in this dissertation provide ample validation of an "imagination and rigor" worthy of close analytical attention.

Though it is tempting, given the free-flowing improvisatory character of Harrison's music in general (and of his works for gamelan and Western instruments in particular), to think that Harrison gave little thought to method or coherent structure in his compositions, his process of composing was, in fact, rooted in making deliberate choices. "One's battery of techniques is proof against 'inspiration,'" he wrote. "Inspiration, as Stravinsky remarked, is a reward of work. When I find myself inspired, I enjoy it—but, I try to lay the pencil down, for, if I continue, I

¹⁹ Paul Dresher, "Looking West to the East," in *A Lou Harrison Reader*, ed. Peter Garland (Santa Fe, N.Mex.: Soundings Press, 1987), 90.

know that I shall have to use the eraser in the morning.”²⁰ In the chapters that follow, through analyses of four works, I will show that Harrison’s emphasis on the centrality of melody to his compositional inventiveness and his method for devising highly structured forms is not hyperbole on his part. As my analyses will reveal, Harrison used the structure of the gamelan to provide a point of departure, a framework that guides the construction of the melodies and every other aspect of the pieces under consideration. Although we may perceive the melodies as rhapsodic or free-flowing, they were in fact created according to a “method” that provided the sort of order and formal integrity that mattered so much to Harrison. In short, by looking closely at the music itself, I show Drescher’s assertion that Harrison’s music simultaneously expresses beautiful melody and intellectual rigor to be true.

HARRISON’S COMPOSITIONAL PROCESS

Miller and Lieberman, in their landmark work *Composing a World: Lou Harrison, Musical Wayfarer* (2004), have done much to dispel the false notion of a naïve simplicity in Harrison’s music. They present Harrison from many angles, creating a multi-faceted picture of the man through discussion of his life-long involvement with dance, his interest in tuning systems, the interplay between his political ideas and his art, his love of East Asian music, and his non-musical endeavors. The authors include a chapter (coauthored with composer and ethnomusicologist Jonathon Grasse) devoted entirely to Harrison’s interest in and compositional use of the gamelan.

²⁰ Lou Harrison, *Music Primer: Various Items About Music to 1970* (New York: C. F. Peters Corp, 1971), 22.

Similarly, the earlier work of Virginia Rathbun and Heidi von Gunden has contributed to our present-day understanding of Harrison's idiosyncratic musical voice. Rathbun's 1976 master's thesis, *Lou Harrison and His Music*, is significant for its transcription of lengthy interviews with Harrison, addressing topics ranging from his early introduction to Asian cultures through his mother's decorative tastes and his frequent attendance of Chinese opera in San Francisco to his studies with Cowell and Schoenberg to his advocacy for the international language Esperanto. Rathbun includes brief discussions of several pieces, but she refrains from making detailed theoretical observations or analytical claims.

Composer/scholar Heidi von Gunden, in *The Music of Lou Harrison*, takes the music as her subject and provides a chronological survey of Harrison's creative output. Von Gunden's encyclopedic scope, however, prevents her from conducting the kind of detailed analysis I am advocating. Her discussion of Harrison's involvement with gamelan centers on the building of various gamelans, the tuning of each set of instruments, and the people surrounding the inspiration for his compositions for gamelan and Western instruments.

Providing more detail, Miller and Lieberman have been able, through their extensive interviews with Harrison, to shed light on his compositional process. As both scholars convey, Harrison often began the process by imposing on himself severe restrictions, which he calls "controls." These controls range from the establishment of a limited selection of intervals, melodic shapes, or rhythmic figures to the restrictions of a specific tuning or mode to limitations dictated by the technique of a particular instrument. The chosen control provides the framework for the composition at hand, which then "turns loose, as [Harrison] manipulates the materials, into wonderfully sensuous, forward-flowing music. . . ."²¹ By setting limitations on the

²¹ Miller and Lieberman are quoting Robert Hughes from an interview on January 14, 1996. Miller and Lieberman, *Composing a World*, 206.

structural basis of many of his works, Harrison creates the challenge of crafting a personal work of art while adhering to a set of self-imposed rules. In essence, his compositional process can be likened to the challenge of solving a puzzle, as Harrison often compared the compositional process to “a delightful game.”

Miller and Lieberman provide specific examples of Harrison’s use of controls, citing his use of interval control in the *Concerto for Flute and Percussion*, *Third Piano Sonata*, and *Concerto for Violin with Percussion*, among other works.²² They also point to a technique of manipulating small melodic cells, which Harrison referred to as “melodicles,” developed early in his career from his studies with Henry Cowell. As Harrison himself recounted, “[Cowell] would give me three or four tone motives and suggest that I use them to construct small model pieces . . . transposing them . . . using the retrograde and inversions and inverted retrogrades, the melodicles either connected by a common tone or separated by a determined interval.”²³ Miller and Lieberman provide an excerpt of Harrison’s *Suite for Symphonic Strings* as an example of his use of this compositional device.²⁴ They also suggest that the presence of nontraditional procedures in his works for gamelan reflects his fascination with the transformations of melodic cells rather than a pure adoption of traditional Indonesian practices. In their analysis of the opening of Harrison’s *Gending Pak Chokro*, Miller and Lieberman state that, in contrast to what

²² Miller and Lieberman, *Composing a World*, 206-207.

²³ Lou Harrison, “Learning from Henry,” in *The Whole World of Music: A Henry Cowell Symposium*, ed. David Nicholls (Amsterdam: Harwood Academic Publishers, 1997), 163.

²⁴ Miller and Lieberman, *Composing a World*, 209.

one would expect in a traditional piece, “Lou’s lancaran contains unusual groupings of pitches within and, idiosyncratically, across gatra.”²⁵

Their inclusion of piece-specific details enriches and strengthens the case they are making for Harrison as a composer worthy of serious study. For example, in discussing *Threnody for Carlos Chávez* (one of the works I have chosen for analysis), Miller and Lieberman offer the following analysis:

Among the most unusual of Harrison’s cross-cultural system transfers was his application of medieval rhythmic proportions to a work for gamelan and viola (*Threnody for Carlos Chávez*, 1978). The sophisticated notation system developed in Europe in the fourteenth century allowed for various combinations of duple and triple meter in three metric relationships. (A particular note could be divided into either two or three of the next shorter value.) Harrison adopted this principle, applying multiple levels of *triple* meter to a work for gamelan, whose music is traditionally organized in layers of *duple* meter. He even extended the medieval principle to more than the three theoretical relationships; *Threnody* is organized by triple divisions on *eight* metric levels, from the entire piece through the shortest note values.²⁶

While Harrison’s use of triple divisions in the gamelan’s structure is a prominent feature of *Threnody* and an obvious turn from Indonesian convention, questions about the piece’s formal structure remain to be explored. What is the precise nature of Harrison’s “game”? How might we more closely understand how the gamelan is structured, and how are the “solo” and gamelan parts related (or not)? These are some of the questions my analysis aims to answer.

²⁵ Miller and Lieberman, *Composing a World*, 167-168.

²⁶ Leta E. Miller and Fredric Lieberman, *Lou Harrison* (Urbana, Ill.: University of Illinois Press, 2006), 113. A slightly longer description of this piece is to be found in Miller and Lieberman’s earlier book on Harrison, *Composing a World* (see p. 169). In this parallel passage, the authors include a fairly extensive quote from Harrison in which he provides a kind of self-analysis of the piece: “I had never heard nor seen a [gamelan] piece in which every layer was triple. *Threnody for Carlos Chávez* is. The whole piece is divided into three, and each one of those units into three, and so on for eight layers. . . . I had discovered a conjunction between Javanese music and Medieval rhythmic modalities in the ‘imperfect’ system [that is, metric layers with entirely duple division], and so it occurred to me: why not try triple as well?” In both passages, Miller and Lieberman cite an interview with Harrison on March 8, 1994.

In discussing Harrison's choice of elaboration technique in *A Cornish Lancaran* for soprano saxophone and Javanese gamelan, Miller and Lieberman provide a similarly descriptive account of features noticeable at the surface of the work. Calling attention to Harrison's use of "a typical gembyang [octave] embellishment in the bonang,"²⁷ they offer a fairly uncomplicated rhythmic analysis of the placement of *bonang* strokes in relation to the *balungan*. They state, "the bonang barung plays between the balungan pitches, while the bonang panerus produces a syncopation exploiting 'on' and 'off' balungan beat strokes."²⁸ Their explanation of pitch content is equally brief: "The bonang anticipate structurally important pitches in the balungan In this way, the last pitch of each structural unit is emphasized and anticipated in gembyang (octave) style."²⁹ Such analysis aids our understanding of traditional gamelan practices in general and Harrison's personal approach in particular, but the intriguing intricacies of Harrison's music remain unexplored.

While it is clear that Miller and Lieberman have a sensitive awareness of how Harrison worked and what general principles guide the "sophisticated game" of composition, the nature of their comprehensive biographical studies has not permitted them to present the sort of meticulous close analysis I offer in this dissertation. My own investigations of individual works show the power of their argument for a reconsideration of Harrison's compositional prowess.

One notable step toward detailed analytical study as a means for arriving at a deeper understanding of Harrison's use of the gamelan is Bill Alves's article "Kembangan in the Music of Lou Harrison." Alves claims that the influences of Javanese gamelan on Harrison's

²⁷ Miller and Lieberman, *Composing a World*, 170.

²⁸ *Ibid.*, 171.

²⁹ *Ibid.*, 171.

compositional style “do not lie just in the more obvious surface features such as cross-cultural instrumentation, but also in deep structural principles that he has adapted to his own unique—and undeniably Western—voice.”³⁰ While acknowledging the presence of Western techniques and experimentation in Harrison’s gamelan music, Alves asserts that “these [Western] innovations remain faithful to a deeper Javanese spirit of *kembangan*, and to the gamelan ideals of community, balance, and harmony on multiple levels.”³¹ The article draws parallels between structural elements of traditional Javanese music and the structural underpinning of Harrison’s compositions. This research proves useful in offering evidence of Harrison’s knowledge of Javanese principles. Of particular relevance to my research is Alves’s process of melodic reduction, which I apply to my analysis of *Main Bersama-sama* in Chapter 3 and use again in examining melody’s implications for rhythmic organization in Chapter 4.

In his approach to four of Harrison’s pieces for gamelan and Western instruments, Alves does not, oddly enough, discuss the significant role played by the solo Western instruments in these compositions. Focusing entirely on the gamelan’s construction, his analysis leaves the impression that Harrison’s compositions, rather than representing a personal synthesis of Indonesian and Western musical principles, serve as templates for understanding traditional gamelan procedures. Intent on showing ways in which Harrison’s music is faithful to Javanese principles of musical structure, Alves approaches these pieces as purely gamelan music, not as works with a Western component. His analysis thus leaves unanswered many questions regarding Harrison’s idiosyncratic approach to writing for the gamelan, let alone those pertaining to the relationship between the gamelan and the Western instrument.

³⁰ Bill Alves, “Kembangan in the Music of Lou Harrison,” *Perspectives of New Music* 39, no. 2 (Summer 2001): 29.

³¹ *Ibid.*, 30.

Taking an opposite stance from Alves, Henry Spiller concludes that, far from achieving an equitable blending of East and West, Harrison's music for gamelan and Western instruments is "even more Western than it sounds."³² In what is perhaps the most insightful reading of Harrison's fusions between Eastern and Western musics to date, Spiller calls into question the generally accepted sentiment that the composer created truly "hybrid" works. Focusing on Harrison's rhythmic treatment of the gamelan, he suggests that, while the surface of the music presents an equitable mix of East and West, a deeper consideration of Harrison's blending of Indonesian and Western musical styles and resources reveals a privileging of Western constructs.

Recognized as one of the foremost gamelan scholars in this country, Spiller brings to his readings a level of expertise that cannot be expected of music critics or historical musicologists studying Harrison's works. His analysis addresses a fundamental difference between Western rhythmic sensibilities and conceptions of time in gamelan music. Using the concept of timespan as defined in the landmark work of Lerdahl and Jackendoff,³³ Spiller explains that, whereas Western music moves forward *from* a beat of rhythmic stress, gamelan music perceives rhythmic motion as moving *towards* a stressed beat. The importance of this distinction between gamelan's end-weighted rhythmic organization and typical Western front-weighted rhythms becomes clear when viewed in light of its effect on melodic structure. As Spiller states:

One of the consequences of this rhythmic sensibility in gamelan music is that the decorating figurations that instrumentalists play to elaborate important notes of the skeleton melody *precede* the actual sounding of that melody note—contrary to a Western predilection to elaborate in the timespan *following* a note's attack. Most Westerners who study gamelan performance long enough eventually experience a comparable "aha moment" with regard to

³² Henry Spiller, "Lou Harrison's Music for Western Instruments and Gamelan: Even More Western than It Sounds," *Asian Music* 40, no. 1 (Winter/Spring 2009): 49.

³³ Fred Lerdahl and Ray Jackendoff, *A Generative Theory of Tonal Music* (Cambridge, Mass.: MIT Press, 1983).

the way they conceive, hear, and internalize how elaborations relate to the slow-moving skeleton melody of gamelan music. What at first may have seemed illogical or dissonant (in a way analogous to the way a G dominant-seventh chord is dissonant to a C bass note) suddenly makes perfect sense when the relationship of elaboration to main note is reversed.³⁴

Spiller shows that, not only did Harrison verbally express discomfort with gamelan's end-weighted rhythm—conveyed in a letter to Jody Diamond³⁵—but his compositions reveal a shift in rhythmic sensibility to conform to Western expectations. In analyzing Harrison's *Main Bersama-sama* for French horn and gamelan degung, Spiller comes to assert that “any ‘playing together’ we hear takes place on exclusively Western terms, despite the exotic sound and the appearance of equity.”³⁶ In the context of my own analyses, Spiller's discussion of front-weighted versus end-weighted rhythmic motion becomes relevant in my reading of Harrison's melodic patterning in *Threnody for Carlos Chávez* as well (detailed in Chapter 4).

Spiller's focused discussion of rhythmic structure provides a superb window for looking into Harrison's unique musical blending of East and West, pointing the way to a more complete picture of Harrison's hybrid vocabulary. While Spiller's aim is to challenge what he sees as an inaccurate assessment of the degree of synthesis actually achieved by Harrison, his opening up of Harrison's music to analytical inquiry illustrates that such probing results in valuable insights into Harrison's expressive lexicon. Thoughtful reflections on Harrison's involvement with gamelan have provided a context for identifying essential features of his personal aesthetic and outlook on musical activity; but understanding how that aesthetic is expressed in the music itself

³⁴ Ibid., 35.

³⁵ Ibid., 39; 50, n. 6. Spiller provides Diamond's approximation of Harrison's letter: “earJ ody, A sy ouc ans eef romt hisl etter, t hes trongb eata tt hee ndi ss omewhatu nsettling (Dear Jody. As you can see from this letter, the strong beat at the end is somewhat unsettling.)”

³⁶ Ibid., 43.

reveals far more about the distinctiveness of Harrison's musical voice and, specifically, his individual approach to crafting cross-cultural works.

THE WORKS FOR GAMELAN AND WESTERN INSTRUMENTS

While Harrison first explored gamelan techniques and imitating gamelan timbres in the early 1950s, it was not until the mid-1970s that he studied traditional Central Javanese performance techniques with K. R. T. Wasitodiningrat (also known as Ki Wasitodipuro and familiarly as Pak Cokro),³⁷ as well as the West Java Sundanese style with Undang Sumarna.³⁸ Invited by his teacher Pak Cokro to do so, Harrison began writing works for Javanese gamelan in 1976, and only two years later he tried his hand at combining gamelan with Western instruments, producing in 1978 both *Main Bersama-sama* (for Sundanese gamelan degung and French horn) and *Threnody for Carlos Chávez* (for Sundanese gamelan degung and viola).

These two works mark the start of a ten-year involvement in mixing Indonesian and Western sound resources. Following *Main Bersama-sama* and *Threnody for Carlos Chávez*, Harrison repeatedly returned to this blend of gamelan and solo Western instruments, exploring the compatibility of various Western instruments with the Javanese ensemble. Listed in their catalog of Harrison's works under the category "Gamelan and Western solo instrument," Leta Miller and Fredric Lieberman include the following compositions in addition to the two already mentioned: *Suite for Violin and American Gamelan* (1974); *Bubaran Robert* (originally composed for gamelan in 1976, solo piccolo trumpet part added in 1981); *Double Concerto for*

³⁷ Miller and Lieberman detail the changes in Pak Cokro's names and honorifics in their book *Composing a World: Lou Harrison, Musical Wayfarer*. The authors also indicate that "Cokro" may alternately be spelled "Chokro." (Miller and Lieberman, *Composing a World*, 66.)

³⁸ Miller and Lieberman, *Composing a World*, 160.

Violin, Cello, and Gamelan (1982); *A Cornish Lancaran* (for soprano saxophone and Javanese gamelan, 1986); *Concerto for Piano with Javanese Gamelan* (1987); and *Philemon and Baukis* (for violin and Javanese gamelan, 1987).³⁹ This list could be expanded, as proposed by Henry Spiller, to encompass a broader spectrum of Harrison's mixing of Indonesian and Western resources, particularly Harrison's incorporation of vocal forces. These works include: *Coyote Stories/The Foreman's Song Tune* (for Javanese gamelan with tenor voice; texts and chant added to *Foreman's Song Tune*, a composition for Javanese gamelan dated 1983, in 1987);⁴⁰ *Gending in Honor of Aphrodite* (for Javanese gamelan, harp, and chorus, 1986); and movements from *Homage to Pacifica* (1991).⁴¹

The importance of these works as symbols of Harrison's philosophical worldview has been asserted by others. Miller and Lieberman, for example, state:

Through his gamelan works Harrison completed his long-sought goal of uniting East and West both by introducing compositional processes of one culture into another and by physically combining sound-producing media from disparate musical ensembles. "It seemed perfectly natural to me," he remarks. "I don't think of it either as a problem or as a distinction. It's all part of making music as far as I'm concerned. There's no *they* and *me*."⁴²

Harrison's interest in bringing together musical styles and sound resources that ranged across both geographic space and time owed much to the mentorship of Henry Cowell. Writing about Cowell's influence, he recalled his teacher's remark that

. . . we were all part of an ocean of intelligence over which there was . . . a surface tension rather like a thin rubber sheet, and that . . . one would rise up

³⁹ Ibid., 278-311.

⁴⁰ Ibid., 308, 310.

⁴¹ Spiller, "Lou Harrison's Music for Western Instruments and Gamelan," 49, n. 1.

⁴² Miller and Lieberman, *Composing a World*, 173. The authors cite an interview with Harrison dated March 8, 1994.

over here and another would rise up over there, and they would look across at one another as though separate, but that they were all the time of one nature underneath.⁴³

For Harrison, the musical undercurrent was melody. As Miller and Lieberman state, his “trips to Asia reinforced his appreciation of the manifold possibilities of intricate melody, downplayed by Western music since the late Renaissance in favor of harmonic complexity.”⁴⁴ Finding great interest in the compositional forms of Korean classical music, Harrison expressed his belief that, in the West, melody offered an unexplored means for creating cohesive works. He went as far as to claim that, “First in importance to the western mind is the revelation that musical form is melody—that the form of a piece can be one giant melody, evolving as melodies beautifully do, and accumulating lovely decorations as it goes.”⁴⁵ We westerners have a wide range of conflicting ideas about the nature and function of melody and form. Tonality and harmony tend to be emphasized as the primary determinants of large-scale form, with melody in a subsidiary role. Harrison’s view may strike many as surprising, even counter-intuitive. Yet clearly he believed melody offered more than spontaneity and whimsy; it provided form as well. In other words, he was suggesting that the seemingly conflicting concepts of structure and freedom could be seen as rooted in one thing: melody.

Harrison’s rich understanding of the function of melody is perhaps most dramatically presented where two worlds meet, and his pieces for gamelan and Western instruments provided a special kind of playground for his melodic experiments. Attracted to the sound of a gamelan—

⁴³ Lou Harrison, “Learning from Henry” in *The Whole World of Music: A Henry Cowell Symposium*, ed. David Nicholls (Amsterdam: Harwood Academic Publishers, 1997), 167.

⁴⁴ Miller and Lieberman, *Composing a World*, 224.

⁴⁵ Lou Harrison, “Creative Ideas in Classical Korean Music,” *Korea Journal* 2, no. 11 (1962): 34.

“a good gamelan is the most beautiful musical ensemble on the planet”⁴⁶—Harrison also saw this musical tradition as providing new formal constraints as a stimulus for his compositional “games.” He adopts the cyclic structure of gong phrases and the layered polyphonic texture of gamelan in these pieces. But within these “rules,” he shows us how multifaceted melody can be in structuring a piece and, in so doing, invites us to consider the nature of melody itself.

AN OVERVIEW OF MY ANALYSES

My analyses of four of Harrison’s pieces for gamelan and Western instruments—*Bubaran Robert* (1976), *Main Bersama-sama*, *Threnody for Carlos Chávez*, and *Bubaran Robert* (1981)—reveal that nothing is as simple as one might assume when entering into each piece. In illustrating how elusive and varied his compositional approach is in each of these compositions, this study shows the complex way in which Harrison explored the nature and function of melody.

Bubaran Robert 1976

Bubaran Robert is one of the very first pieces Harrison wrote for gamelan and thus gives us a glimpse into his early understanding of this tradition. Most likely because of its early positioning, the piece displays Harrison’s efforts to remain faithful to the traditional formal principles of gamelan. Harrison employs a traditional colotomic structure, the *bubaran*, and establishes within this form a binary structure determined by metric and pitch hierarchies. In this work we see him investigating the Javanese notion of melody as presented by the concept of *balungan*, or melodic skeleton. He also tries his hand at formulating an elaborating part in relation to the underlying melodic frame. Significantly, Harrison later revised this piece as a

⁴⁶ Quoted in Miller and Lieberman, *Composing a World*, 157.

“hybrid” work, adding a melody to be played by piccolo trumpet. The revision, made only after he experimented with other hybrid works, presumably represents his sophisticated knowledge of both gamelan and the creative possibilities of hybridity.

Main Bersama-sama (1978)

Main Bersama-sama is significant for being Harrison’s first attempt to combine gamelan with a Western instrument. In this work, he placed melody at the forefront of the musical texture through his writing of a solo obbligato line shared by the *suling* and French horn. But, as my analysis will show, Harrison organized the seemingly free and flexible solo line according to the melodic design of the gamelan’s structural melody. In tying all instrumental parts to the skeletal melody (*balungan*), he not only explored the writing of graceful lines to be played by the Western instrument, but he also experimented with creating a mosaic of small melodic cells (“melodicles”) based on melodic contour in one of the elaborating parts. Thus the piece shows an elegance of design in its refinement of means, as both flowing melody and tightly knit patterning are derived from the same ten-note melodic skeleton of the work.

Threnody for Carlos Chávez (1978)

Threnody for Carlos Chávez may have been conceived as a pair with *Main Bersama-sama*, since its working title was *Main Bersama-sama II*. The interplay between formal design and the apparently spontaneous development of musical material becomes more pronounced in this piece. In contrast to the expression of cooperation between the melody played by the Western instrument and gamelan *balungan* in *Main Bersama-sama*, the relationship Harrison established between the Western instrument and the gamelan in *Threnody* is one of resistance.

As my analysis reveals, Harrison carefully crafted the gamelan's multiple layers according to John Cage's "square root" form only to pit such deliberate patterning against the melodic freedom and rhapsodic character of the viola line. The viola line, through ambiguous phrase structure, appears purposely to avoid a sense of clear patterning. Such ambiguity is also to be found in the melody's tonal construction. Harrison's interest in the tension between architectural design and expressive liberty is clearly evident in this work.

Bubaran Robert 1981

The revised version of *Bubaran Robert* serves as the bookend to the other compositions considered. It is a piece in which the gamelan part is known to have been written before the melody for the Western instrument. In this, it differs from both *Main Bersama-sama* and *Threnody for Carlos Chávez*; but the return to a previously composed work and the addition of a melody to be played by a Western instrument served as a model for Harrison's later compositions *A Cornish Lancaran* for saxophone and gamelan and the *Double Concerto for Violin, Cello, and Gamelan*, which are similarly constructed from early pieces for gamelan alone. In examining the changes Harrison made to the gamelan parts in *Bubaran Robert*, my analysis shows him to be reinvestigating the melodic potential of a traditional form. The role of melody in defining the work's binary frame becomes more prominent, with the composition's form determined not only by Harrison's use of a traditional colotomic structure but also through melodic patterning. Importantly, the work shows a heightened sensitivity to hearing the gamelan as an equal partner in the musical fabric. Taken as a pair, *Bubaran Robert* 1976 and *Bubaran Robert* 1981 enable us to see Harrison's continued devotion to creating a tightly organized form

through melodic means and the development of a sophisticated sense of how Eastern and Western musical ideas and instruments can “play together.”

Together, these four compositions are well positioned to enable us to understand that the central issue in works such as these is not “hybridity” per se, which has so often been misunderstood or overemphasized. More than mixing Eastern and Western musical resources and styles, the works for gamelan and Western instruments reveal an intriguing play between structure and the sense of freedom. Harrison’s interest in the friction between planned form and spontaneity has been stated by the composer himself and related by other scholars, but the specific ways in which this compositional tension plays out in his music has not been fully explored. My analyses seek to demonstrate at least part of what Harrison and his admirers were trying to say, thereby illuminating the intricacies of Harrison’s approach to crafting works that, while blending East and West, express a more stimulating and essential component of his compositional method.

CHAPTER 2

HARRISON'S EARLY ENGAGEMENT WITH GAMELAN: *BUBARAN ROBERT*, 1976

Although widely known as a work for gamelan and piccolo trumpet, *Bubaran Robert* was originally conceived and published in 1976 for gamelan alone. Only after the passage of five years did Harrison add the trumpet melody, while simultaneously revising the gamelan's melodic structure. The 1976 version thus has much to reveal about Harrison's early understanding of gamelan. In this chapter, through an analysis of *Bubaran Robert* 1976, I will explore key structural principles of traditional gamelan music, the ways in which Harrison adhered to these principles at this early stage, how he notated the music that he wrote for gamelan, and how he began to make melodic features of gamelan his own. Given the piece's traditional nature, the chapter will establish a kind of gamelan grid against which the other pieces under consideration can be heard, and against which we can better understand Harrison's later strategies for combining gamelan and Western instruments. In Chapter 5, I will return to *Bubaran Robert* as revised in 1981 in order to explore how the later version exemplifies Harrison's distinct melodic voice and his interest in the interplay of form and melody. Because I will be using many technical terms and referring to instruments that may be unfamiliar, readers may want to refer to the glossary provided in Appendix A.

Together with *Gending Samuel* and *Gending Pak Chokro*, *Bubaran Robert* was published in 1976 as a collection of three pieces entitled *Music for Kyai Hudan Mas*. The collection was one of Harrison's earliest attempts at writing for traditional gamelan. Each of the pieces was

dedicated to an individual whom Harrison considered central to his early experience with gamelan. *Gending Samuel* was composed for Samuel Scripps, who owned the famous set of instruments, Kyai Hudan Mas (“Venerable Golden Rain”), for which Harrison’s works were composed—instruments that Scripps lent to Harrison for use at San Jose State University. Using Kyai Hudan Mas as a model, Harrison and William Colvig subsequently built their own gamelan at San Jose State, naming it Si Betty to honor Los Angeles music patron Betty Freeman. Scripps also provided major funding for the American Society for Eastern Arts, which had been involved in the transplantation of the instruments of Kyai Hudan Mas from Central Java to California in the early 1970s. *Gending Pak Chokro* was dedicated to Harrison’s gamelan teacher, Pak Chokro, who invited Harrison to write for traditional gamelan; and *Bubaran Robert* honored Dr. Robert Brown, the director of the American Society for Eastern Arts.¹

The titles of these pieces combine a Javanese word that identifies a specific formal structure² with a Western name that serves as an homage. Either as a sign of Harrison’s gratitude to the individuals who had assisted him or as a result of the novelty of writing for gamelan (or both), each piece embodies Harrison’s effort to remain faithful to the formal principles of gamelan. Like the two *gendhings*,³ *Bubaran Robert* shows a clear tendency towards traditional

¹ Leta E. Miller and Fredric Lieberman, *Composing a World: Lou Harrison, Musical Wayfarer* (Urbana, Ill.: University of Illinois Press, 2004), 68, 165. See also Harrison’s written notes accompanying the score for *Music for Kyai Hudan Mas* [Lou Harrison, “Music for Kyai Hudan Mas,” *Soundings* 10 (Summer 1976): n.p.].

² *Bubaran* is a distinct musical form. *Gending* is frequently used as a generic term for fixed-meter gamelan compositions, but may also refer more specifically to the largest group of compositional forms, containing at least two movements or sections (*merong* and *inggah*).

³ This reflects a more current spelling of the term. Harrison uses an older form in his titles *Gending Samuel* and *Gending Pak Chokro*.

modes of expressive meaning.⁴ In particular, it adheres to key characteristics of formal design: namely, cyclicity, the creation of an interlocking pattern played by the colotomic instruments as a foundational layer, stratified variations of a single melodic line, pitch coincidence, and end-weighted rhythmic structure. These traditional features remain characteristic of most of the pieces Harrison composed during the years immediately following *Bubaran Robert*.

THE PIECE AS SEEN ON THE PAGE AND INTERPRETED BY THE PERFORMERS

Harrison's score for *Bubaran Robert* 1976 provides the essential melodic framework and phrase structure of the piece (see Example 2.1). The music begins with a 17-beat *buka*, or solo introductory phrase, played on the *saron*, a single-octave metallophone. The opening phrase concludes with the striking of a large gong and leads into the main section of the piece played by the full ensemble. Harrison composed the body of the work as a succession of four phrases to be repeated an unspecified number of times. Each phrase consists of sixteen beats, providing an overall framework of the piece of 64 beats of music. As shown in the reproduction of the central score below, the information provided to performers appears somewhat limited from a Western musical perspective and should be viewed as a roadmap for musicians versed in traditional Javanese gamelan performance practice.

⁴ In addition to acknowledging the form employed, Harrison also indicates the scale, *slendro*, in this first version of the work. See Harrison, "Music for Kyai Hudan Mas," *Soundings* 10 (Summer 1976): n.p. The 1981 revised version names the scale and *pathet* or "mode" (*manyura*). See Lou Harrison, *Music for Gamelan with Western Instruments* (Aptos, Calif.: American Gamelan Institute by arrangement with Hermes Beard Press, 1992): 1-6.

Buka: 3 2 • 3 2	5 5 3 2	5 5 3 5	6 6 5 ⑥
5 6 $\frac{\cdot}{xx}$ 6	5 6 3 5	3 5 $\frac{\cdot}{xx}$ 5	3 5 2 ③
2 1 2 3	2 $\frac{\cdot}{xx}$ 2 3	2 1 2 3	2 3 5 ⑥
5 6 $\frac{\cdot}{xx}$ 6	5 6 3 5	3 5 2 3	2 1 2 ③
2 1 3 2	5 5 3 2	5 5 3 5	6 6 5 ⑥

Example 2.1: Reproduction of central score of *Bubaran Robert* 1976

Harrison uses ciphers to denote the pitches to be played, as is common practice in notating gamelan pieces; and, each number corresponds to one rhythmic beat in the metric structure of the work. Not shown in my reproduction of the score is Harrison's notation of the interlocking pattern of strokes played by instruments considered to be phrase-markers in traditional gamelan repertoire, which I discuss below. An accompanying legend specifies the instruments to be played: *ketuk*, *kenong*, *kempul*, *gong suwakan* [sic], and *gong ageng*. In addition to naming the *saron* as the work's primary melodic instrument, the published score includes Harrison's written out elaboration for *bonang*.

The absence of other written out parts indicates Harrison's willingness to allow gamelan musicians the freedom to create melodic embellishments in line with traditional Javanese practice. Such flexibility in realizing the more intricate melodic aspects of a specific piece is, in fact, the norm in gamelan performance. As Miller and Lieberman write,

In more recent times, [Harrison] has begun to write out imaginative and creative parts for elaborating instruments as his gamelan compositions expand traditional *garapan* technique. Notating new elaborations, however, has also required him to coach his performers. Without specific notation or instruction to the contrary, his gamelan music should be realized according to traditional practice.⁵

⁵ Miller and Lieberman, *Composing a World*, 173.

Bubaran Robert thus expresses Harrison's intent to create a work that closely follows traditional practice.

Typical of traditional performance practice, the length of the composition is not fixed but left to be determined by the performers. Decisions regarding tempo and the number of repetitions of a melodic section are determined by the *kendang* (two-headed barrel-shaped drum) player, who "conducts" the ensemble through drumming cues. As Miller and Lieberman relay, "Though Lou has played *kendang* informally, he does not typically notate drum parts, allowing them instead to be realized by a musician trained in classical practice."⁶ *Bubaran Robert* adheres to this traditional practice, once again showing Harrison's desire to be faithful to the gamelan tradition.

FORMAL CONSTRUCTION: THE COLOTOMIC LAYER

Harrison's interest in understanding formal aspects of Javanese gamelan music is evident in his use of the term *bubaran*, which announces the traditional formal structure employed in the work. Like other small forms such as *ladrang* and *lancaran*, *bubaran* is articulated by a particular pattern of punctuating strokes played on a handful of instruments that serve to lay out an underlying timeline for other instruments moving at higher rhythmic densities.

Ethnomusicologists commonly refer to this foundational layer as the *colotomy* (or *colotomic* structure) and to the instruments involved as *colotomic* instruments.⁷ These instruments include

⁶ Miller and Lieberman, *Composing a World*, 163.

⁷ Henry Spiller provides the following explanation for the root of the terms *colotomy* or *colotomic form*: "These terms are based on the Greek word for a unit of rhythm (*colon*) and the Greek-derived suffixes for

the *gong ageng*, *gong suwukan*, *kenong*, *kethuk*, *kempul*, and *kempyang*. In describing the function of the colotomic instruments, Henry Spiller states:

Just as construction workers, when building a concrete structure, start with a wooden form into which they pour cement and rocks, composers of gamelan music begin with a colotomic template or mold into which they “pour” the melody and elaboration. In English, a musical template of this kind is typically called a *form*; college music students learn about the classical sonata form, and almost everybody is familiar with the verse-chorus-verse-chorus form of most popular songs. Central Javanese musicians regard each of the standard colotomic patterns that undergird gamelan pieces as a form. Each form has a name and is defined by its distinct interlocking pattern of gong, kenong, kethuk, kempyang, and kempul strokes.⁸

Bubaran form consists of a set of sixteen-beat phrases that conclude with the striking of a large gong, typically the *gong ageng*. Figure 2.1 provides a schematic of the colotomic structure.⁹ Each gong phrase (*gongan*) is divided into four subphrases marked by the sounding of the *kenong* at the end of each unit. Called *kenongan*, these four-beat phrases are further delineated by the punctuation of the *kempul* on the second beat of each subphrase and the *kethuk* on the first and third beats.

Harrison details this colotomic structure in his written score to *Bubaran Robert*. His notation in the 1976 published version is a bit confusing; the revised 1981 version (shown in Example 2.2 below) is clearer in its delineation of punctuating strokes within the gong cycle. The example shows both the interlocking pattern played by the colotomic instruments (labeled T for *kethuk*, N for *kenong*, and P for *kempul*) and the melodic content of the first *gongan* as expressed in ciphers, which will be discussed below (see pp. 35-6). Harrison indicates the

something that cuts or divides into sections (-tomy or -tomic).” Henry Spiller, *Focus: Gamelan Music of Indonesia*, 2nd edition (New York: Routledge, 2008), 57.

⁸ Spiller, *Focus: Gamelan Music of Indonesia*, 2nd ed., 73.

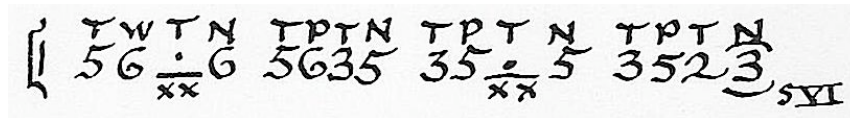
⁹ My schematic of *bubaran* form borrows heavily from Henry Spiller’s representation of colotomic patterns. See Spiller, *Focus: Gamelan Music of Indonesia*, 2nd ed., 57, 65, and 74.

Beats	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Gong																G		
Kenong				N				N				N				N		
Kempul		W				P				P				P				
Kethuk	T		T		T		T		T		T		T		T			
Composite	[:	T	W	T	N	T	P	T	N	T	P	T	N	T	P	T	N/G	:]

Figure 2.1: Colotomic structure of the Central Javanese form *bubaran*
 [G = gong, N = kenong, P = kempul, T = kethuk, W = wela¹⁰]

¹⁰ *Wela* refers to the absence of the *kempul* stroke that typically occurs in the first *kenong* phrase of a Javanese colotomic form.

striking of the gong at the end of the line with the incomplete circle around pitch 3 and specifically calls for *gong suwukan* with his written indication “SVI” to the right of the number 3.¹¹



Example 2.2: Harrison’s marking of the colotomic structure,
Bubaran Robert 1981 revised version

Harrison’s choice of *gong suwukan*, a large hanging gong similar to the *gong ageng* but smaller in size and thus less powerful in sound and hence meaning, reveals a large-scale metric organization of the music that spans more than one *gongan*. While *bubaran* form specifies the recurrence of *kenongan* and the number of basic beats within a gong cycle, the number of *gongan* is left undetermined in establishing the framework of a piece. As shown in a reproduction of the central score in Example 2.3, Harrison writes four *gongan* (whose melodic pitches are represented by ciphers) to serve as the underlying structure of the piece, with these four lines to be played repeatedly and the number of repetitions to be determined by the performers.¹² According to Harrison’s written legend accompanying the 1976 published version,

¹¹ The “SVI” notation indicates the use of *gong suwukan* tuned to pitch 6. In traditional Central Javanese gamelan, a set of gamelan instruments may include several *gong suwukan* with various pitches. Harrison’s legend accompanying the 1976 score of *Bubaran Robert* notes that *gong suwukan* is to be played where an open circle is marked, while *gong ageng* is to be played where a complete circle is marked. Although notated slightly differently, his decision to alternate *gong suwukan* and *gong ageng* as the concluding gong tone for each sixteen-beat *gongan* is consistent between both versions of the work.

¹² The length of the composition is thus undefined and left in the hands of the performers, resulting in performances of varying length. Such performance flexibility is typical of gamelan music, especially given the tradition’s history as an oral art form. Andy Sutton and Roger Vetter provide a critical perspective on flexibility in Javanese performance practice in their analysis of *Ladrang Pangkur* [R.

gong suwukan is to be sounded at the end of lines one and three, as indicated by his use of open circles around pitch 3, and *gong ageng* is to be struck at the end of the second and fourth lines, as indicated by full circles around the two concluding tones on pitch 6. Harrison's alternation of *gong suwukan* and *gong ageng* to mark the end of each *gongan* thus creates a metric hierarchy that places greater emphasis on the gong tones of the second and fourth lines because of the greater sense of finality achieved by the punctuation of the *gong ageng*, the lowest and most resonant sound of the ensemble.¹³

5 6 $\frac{\cdot}{xx}$ 6	5 6 3 5	3 5 $\frac{\cdot}{xx}$ 5	3 5 2 ③
2 1 2 3	2 $\frac{\cdot}{xx}$ 2 3	2 1 2 3	2 3 5 ⑥
5 6 $\frac{\cdot}{xx}$ 6	5 6 3 5	3 5 2 3	2 1 2 ③
2 1 3 2	5 5 3 2	5 5 3 5	6 6 5 ⑥

Example 2.3: Melodic outline of *Bubaran Robert*, 1976 version

Given the relative strength of the two gongs, we can see that Harrison paired the first and second *gongan*, and similarly the third and fourth *gongan*. The metric location of *gong suwukan* serves to articulate the midway point of the music's progression to the sounding of the structurally more significant *gong ageng*. The four lines can thus be parsed into two equal

Anderson Sutton and Roger R. Vetter, "Flexing the Frame in Javanese Gamelan Music: Playfulness in a Performance of *Ladrang Pangkur*" in *Analytical Studies in World Music*, ed. Michael Tenzer, 237-272 (New York: Oxford University Press, 2006)]. For a detailed account of gamelan's oral tradition and the development and use of cipher notation, see Jennifer Lindsay, *Javanese Gamelan: Traditional Orchestra of Indonesia*, 2nd ed. (New York: Oxford University Press, 1992), 42-46.

¹³ The *gong ageng* is the most revered instrument of the ensemble, often bestowed with an honorific title or name. Many gamelan sets take their name from the *gong ageng*.

halves, each half voicing the same underlying metric organization of motion towards a subsidiary gong tone (at the end of the first *gongan* of each pair) on the way towards a more compelling moment of rhythmic closure (achieved at the end of the second *gongan* of each pair). This binary construction is furthered strengthened by the music's melodic organization, highlighted by motion leading alternately to pitches 3 and 6 at the end of each *gongan* (as shown in Example 2.3), a feature discussed more fully later in this chapter. The role of melody in defining the work's binary frame becomes more prominent in Harrison's revision of the work, as we shall see in Chapter 5.

TUNING AND NOTATION

For readers unfamiliar with gamelan cipher notation, it is important to note that the numbers standing in for melodic pitches do not express a standard tuning pattern. Rather, gamelan embraces intonational diversity. A "complete" gamelan consists of a double set of instruments, each set tuned to one of two tuning systems (*laras*): *slendro*, comprised of five tones; or *pelog*, comprised of seven tones. Most *pelog* melodies do not use all seven pitches but use one of two five-pitch subsets of the *pelog* tuning system (*pelog bem* and *pelog barang*). The two remaining pitches serve as "exchange tones that substitute temporarily for their neighbors"¹⁴ and provide additional melodic flavor. In effect, then, both *slendro* and *pelog* scales can be said to be pentatonic.

The main difference between *slendro* and *pelog* is not the number of tones in the tuning system but the size of intervals between the tones. In *slendro* the five pitches are more or less

¹⁴ Marc Perlman *Unplayed Melodies: Javanese Gamelan and the Genesis of Music Theory* (Berkeley, Calif.: University of California Press, 2004), 40.

equally spaced throughout the span of an octave, creating relatively equal intervals between adjacent tones that, in Western terms, are larger than a major second but smaller than a minor third. *Pelog*, on the other hand, consists of unequal intervals of large and small size, making *pelog* melodies readily distinguishable from those in *slendro*.

In cipher notation the notes of *slendro* are assigned the numbers 1, 2, 3, 5, 6; the seven pitches of *pelog* are represented by the numbers 1, 2, 3, 4, 5, 6, 7. These numbers do not represent absolute pitches but should be seen more as placeholders within the scale used entirely for notational purposes. As Jennifer Lindsay writes, “no two gamelan sets will have exactly the same tuning, either in pitch or in interval structure.”¹⁵ In other words, pitch 1 (or any other pitch) is not standardized among all gamelan sets, nor is the distance from pitch 1 to pitch 2; rather, each gamelan is given its own unique tuning during the process of making a set of instruments. The reasons for intonational variety stem from both historical and aesthetic factors, according to Lindsay:

The first reason is historical, for Javanese tradition ruled that the ancient, sacred gamelan sets could not be copied exactly. The same ruling applied (and to some extent still applies) to the tunings of the palace gamelans. Even today it is considered impudent and something of an insult to an old, revered gamelan set for someone ordering a new gamelan to deliberately copy exactly the older tuning. The tuning of a gamelan set must be understood as part of its own identity, together with the actual sound quality of the bronze itself There is another reason, though, why the Javanese tuning systems have not been standardized, and this reason is closely related to the first. Javanese musicians understand and appreciate the advantages of subtle differences in tuning in the performance of gamelan music. Expert musicians will know which pieces of music sound best on which gamelan sets, and which gamelan sets sound happy, sad, or majestic, for example.¹⁶

¹⁵ Jennifer Lindsay, *Javanese Gamelan: Traditional Orchestra of Indonesia*, 2nd ed. (New York: Oxford University Press, 1992), 41.

¹⁶ *Ibid.*, 41.

This sensitivity to subtle variations in tuning was one of the qualities of gamelan music Harrison found most appealing. Harrison studied tuning and temperament, finding Harry Partch's *Genesis of a Music* revelatory in its implications for uses of just intonation in modern practice. He drew upon ancient Greek theories supporting mathematically pure intervals and came to dislike the rigidity of equal temperament, believing its invariability to have desensitized Western ears to "hearing pitch as an aesthetic variable."¹⁷ Arguing for the value of other models, Harrison voiced disenchantment with the pervasiveness of equal temperament and pointed to the sophistication of other musical traditions' perception of variations in pitch.

We're pounded at daily by Equal Temperament advocates, by the whole industry which wants to make interchangeable instruments on a planetary basis, all in the same tuning—and an irrational one to begin with. In other places, such as Java, however, the average villager may have a greater understanding, tolerance, and interest in tuning variation than some of the most refined musicians in the West. My classical example is the young Widiyanto. He played on two gamelan whose tunings differed only in one pitch, which varied by the interval 55:54 [32 cents]. "Oh," he immediately remarked, "they are very different."¹⁸

Seeing opportunities for unique syntheses where others often did not, Harrison combined his loves of Just Intonation and gamelan. In building "Old Granddad," an early attempt to fashion an Indonesian gamelan out of homemade materials, and gamelan sets for San Jose State University and Mills College based on traditional instruments, Harrison and his partner Bill Colvig tuned the instruments using pure intervals.¹⁹

¹⁷ Miller and Lieberman, *Composing a World*, 126.

¹⁸ Miller and Lieberman, *Composing a World*, 126. The authors cite an interview with Harrison on February 10, 1994.

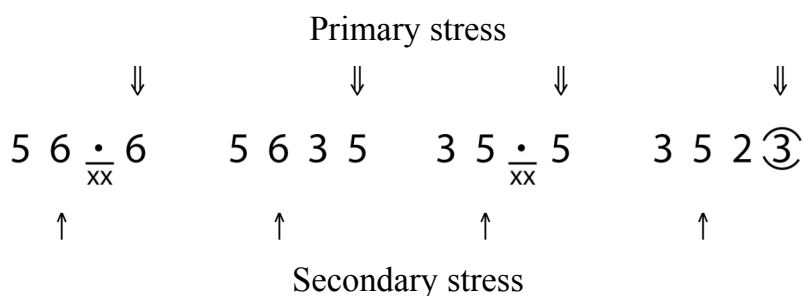
¹⁹ Miller and Lieberman, *Composing a World*, 160.

OTHER CONVENTIONS OF NOTATION

Cipher notation not only expresses melodic pitch content as represented by numerals, but conveys aspects of the metric organization of gamelan music as well. As shown in Example 2.3 above, metrically important moments are underscored by the punctuation of colotomic instruments. In addition to delineating form, points of metric stress—namely, the stroke of the large gong and the strokes of the *kenong*—provide a frame for the occurrence of melodic cadences. The reader should note that, visually, such points of metric emphasis, and hence potential moments of melodic closure, occur at the end of each notated *gongan* or on the last beat of a subsection (e.g., *kenongan*). This convention reveals the fundamental sense of melodic motion moving towards a goal, a conception of rhythmic organization that gamelan scholars refer to as end-weighted. The significance placed on the last beat of rhythmic groupings is felt not only in metric terms, but also in its influence on the melodic progression of the individual parts (discussed below).

In addition to the colotomic phrase markers, the final beat of smaller metric units consisting of four slow beats is also given metric stress. Known as *gatra*, each four-beat grouping is visually separated from its neighbors by a space on either side, a convention that provides visual clarity in delineating each unit but does not represent an actual break in sound. In the case of *Bubaran Robert*, the form's specification of four-beat *kenongan* results in *gatra* and *kenongan* being one and the same (as opposed to a single *kenongan* containing multiple *gatra*). Example 2.4 shows the first line of *Bubaran Robert*, which consists of four *gatra*. The major point of stress within each unit occurs on the fourth beat (indicated by double-lined

arrows); a point of subsidiary stress occurs midway through each unit on beat 2 (indicated by single-lined arrows).²⁰



Example 2.4: Four *gatra* of melodic skeleton of *Bubaran Robert*

The reader will notice that both the first and third *gatra* in Example 2.4 contain a period in the place of a numeral. The appearance of a period indicates that the previously played tone is sustained. For example, the period located on beat 3 in the first *gatra* indicates a continuation of tone 6 from beat 2. In this instance Harrison calls for a muted double strike on the *saron* on the third beat, denoted by the horizontal line under the period and the double “x.” A horizontal line placed across a beat signals that the duration of the beat is to be evenly divided into two equal parts, a rhythmic subdivision comparable to the division of a quarter-note into two eighth-notes. Although Harrison writes these lines of rhythmic subdivision across the bottom of spaces in *Bubaran Robert*, notational practice typically presents them above the provided numerals.

Notation also indicates the octave to be sounded. An unadorned numeral indicates a tone of the central octave. A numeral with a dot placed above it specifies a tone of the upper octave;

²⁰ Perlman compares the metric scheme of *gatra* to a Western measure in quadruple meter, in that both units have a main point of stress and a subsidiary point of stress. Perlman, *Unplayed Melodies*, 53.

a numeral with a dot below it specifies a tone of the lower octave. In *Bubaran Robert* Harrison uses only the central octave.

PATHET

Frequently translated as “mode,” the Javanese word *pathet* embraces a system of restraint that guides the musical treatment of the notes of the scale. Each of the two tuning systems contains three modes called *pathet*. In *slendro* the three modes are *pathet nem*, *pathet sanga*, and *pathet manyura*; in *pelog* the three modes are *pathet lima*, *pathet nem*, and *pathet barang*. The *pathet* of a piece is expressed through the emphasis of particular pitches at important metric junctions and, conversely, the avoidance of other tones at structurally prominent moments. For example, in *pathet lima* tones 1 and 5 are emphasized, while tone 7 is avoided.²¹ The melodic parts also display the *pathet* of a piece through the use of characteristic cadential patterns and patterns of elaboration. As Jennifer Lindsay points out, *pathet* “is therefore a limitation on the player’s choice of variation Awareness of such limitations, and exploration of variation within them reflects a basic philosophical aim of gamelan music, and indeed all art in central Java, namely, the restraint and refinement of one’s own behaviour.”²²

The complexity of the *pathet* system has not been lost on Javanese theorists, who have conducted substantial research on this topic, nor was it lost on Harrison. It is interesting to note that Harrison made no mention of *pathet* in the 1976 version of *Bubaran Robert* but clearly

²¹ R. Anderson Sutton, Endo Suanda, and Sean Williams, “Java,” in *The Garland Encyclopedia of World Music* Vol. 4 (Southeast Asia), ed. Terry E. Miller and Sean Williams (New York: Garland Publishing, Inc., 1998): 657.

²² Lindsay, *Javanese Gamelan*, 40.

indicated the use of *pathet manyura* in the 1981 revision. As Miller and Lieberman relay, Harrison normally defined both the *laras* (*slendro* or *pelog*) and *pathet* in his works for gamelan, but his understanding of this complex concept was limited and, on one occasion, questioned by a highly regarded Javanese musician. I quote liberally from their essential book *Composing a World: Lou Harrison, Musical Wayfarer*, in which the authors cite an interview with Vincent McDermott and personal communication with the composer.

In attempting to crack the mysteries of *pathet*, Lou's reliance on his intuitive musicality may have come up against an excessively hard nut, as Vincent McDermott relates regarding a 1984 encounter at the Arts University in Solo: "Some music of Lou's was played, a piece for which he had identified a *pathet* in the title. He said it was in *manyura*, one of the three *pathet* of *slendro*. During the question period afterwards, one of the most eminent of the people at that school at that time, Pak Martopangrawit, politely asked, 'Why did you say it's in that particular *pathet*?'"

Lou was silent for a moment. After nearly ten years of study, he had thought he understood the attributes of *pathet manyura*, but it now became clear that the concept was far more elusive than he had imagined. "Ignorance," he finally responded, "purely from ignorance." The problem was "politely passed over," recalls McDermott, "but it indicates that the subject of *pathet* is so complicated and so ultimately Javanese in its essence, that although Lou, with Pak Cokro's help, thought he had written a piece in *manyura*, an eminent Indonesian musician immediately wondered why it would be called so." "That's the last time I ever specified a *pathet* in one of my pieces," Lou recalls.²³

MELODIC ORGANIZATION: THE MELODIC SKELETON (*BALUNGAN*)

In addition to the form-defining ("punctuating") instruments, two other categories of vocal and instrumental parts create the layered heterophonic texture characteristic of gamelan music: instruments that create the melodic framework, and parts that elaborate it. The nature of this melodic framework (*balungan*) has been a focal point of study for many ethnomusicologists interested in developing a nuanced understanding of how Javanese musicians recall the melodic

²³ Miller and Lieberman, *Composing a World*, 170.

shape of a specific piece within this still largely oral musical tradition and how they formulate the elaborating parts in relation to the underlying melodic frame. In his recent book *Unplayed Melodies*, Marc Perlman reveals the complexity inherent in this seemingly simple concept of a guiding structural melody:

Karawitan, the music of the Central Javanese *gamelan* ensemble, is a highly sophisticated tradition of multipart music. As many as eleven distinct melodic lines create a rich orchestral texture, one that owes nothing to Western principles of harmony or counterpoint. Ethnomusicologists call this texture “heterophonic,” meaning that it presents different versions of a single melody simultaneously. This is a very imprecise term, but it does capture an important truth: Javanese musicians usually consider the many melodic lines of a *gamelan* composition to revolve around one central melody. Paradoxically, however, it is not obvious what that melody is. Javanese musicians themselves disagree over it; some have suggested that there is no *audible* melodic basis but only an *implicit* one, a central melody neither played nor heard.²⁴

This concept of an essential melody that is not explicitly played on any of the instruments poses an interesting challenge for both Western composers writing for *gamelan* and for those attempting to analyze this music. The different parts played emerge from the musicians’ conception of the “inner” melody of a specific piece and their knowledge of the idiomatic styles of each instrument. Each part is thus one manifestation of that guiding melodic frame. Despite this abstract approach to melody, one part in particular has become fairly centralized within *gamelan*’s stratified texture. Called *balungan* (literally, “skeleton”), this part provides the basic melodic outline audible to all and upon which other parts play more elaborate melodic variations. Played by instruments of the *saron* family (the *slenthem*, *demung*, and *saron barung*)²⁵—metallophones with a range of approximately one octave—the *balungan* is typically played in a

²⁴ Perlman, *Unplayed Melodies*, 1.

²⁵ According to Perlman, these instruments typically perform the same melody in three different octaves. Perlman also states that the *saron panerus* or *peking*, an instrument tuned an octave higher than the *saron barung*, plays a simple elaboration of the *balungan* and thus “falls functionally between the melodic-skeleton instruments and the “elaborating” parts.” Perlman, *Unplayed Melodies*, 38.

slow, even rhythm, and, significantly, it is this melodic line that Javanese musicians write down when gamelan music is notated.

Following traditional notational practice, Harrison writes the *balungan* for *Bubaran Robert*, shown in Example 2.3 and reproduced below in Example 2.5. As discussed in Chapter 1, having an architectural plan is central to Harrison's compositional process—in this case provided by the *bubaran* form but also determined by the melodic skeleton. Pitch choices, as they relate to rhythmic structure and phrasal relationships, impart an organizational frame to the piece, showing Harrison's belief in "the importance of melody (as musical form). . . ."²⁶ Given the role of melody in his attraction to Asian music and his insistence that much of the world's music consists of melody with some sort of rhythmic support, it is not surprising that Harrison would interpret gamelan music as beginning from melodic impulse.

In their analysis of Harrison's treatment of gamelan, Miller and Lieberman offer an observation that supports such emphasis on Harrison's focus on melodic structure:

One way in which [Harrison's] works differ from those of the traditional repertory is that, instead of approaching *balungan* as a framework whose notes may be so disguised that the listener does not even perceive them as a continuous melodic line, he treats it more like his Western melodies; that is, the *balungan* is closer to the surface of the gamelan texture.²⁷

Unlike the "unplayed melodies" discussed by Perlman and others, the *balungan* in Harrison's

pieces is most often presented as a melodic line to be played by a single instrumental part.

Although not a "surface" feature, the *balungan* is traceable as a fairly slow-moving and rhythmically monotonous melody underneath the dense rhythmic activity at the surface of a work. In his own written comments accompanying the score to *Bubaran Robert*, Harrison makes

²⁶ Lou Harrison, "Creative Ideas in Classical Korean Music," *Korea Journal* 2, no. 11 (1962): 34.

²⁷ Miller and Lieberman, *Composing a World*, 161.

mention of “[t]he wave motion of this melody” in the gamelan.²⁸ Given this statement, Harrison undoubtedly perceived the gamelan *balungan* of *Bubaran Robert* to be a melody befitting his own personal definition of what a “melody” is.

The *balungan* melody, restrained in both its range and rhythmic variety, may not seem to be created in the same tuneful fashion as much of Harrison’s music. It is unlikely that the main melody of “Bubaran Robert” would be considered memorable by Western listeners. Primarily conjunct in motion, the melody lacks a sense of motion towards or away from a melodic high point. In other words, strikingly absent from a Western perspective is a discernible overarching phrase shape as a means of structuring the melodic pitches. Rather, Harrison creates a persistent monotony of predominantly stepwise rising and falling motion, the melody turning back on itself in constant changes of direction, making Harrison’s description of wave motion particularly apt.

The melodic shape of the *balungan* reinforces the binary structure implied by the alternation of *gong suwukan* and *gong ageng* at the end of each *gongan*. The gamelan’s 64-beat cycle breaks down into two pairs of 16-beat *gongan*, and each pair of gong phrases creates a relationship of antecedent-consequent, or *padhang-ulihan*,²⁹ through the relative stability of pitch of the two gong tones. The first *gongan* of each pair ends with gong tone 3, a tone of stability in the piece but second in strength to gong tone 6, which is used at the end of the second *gongan* of each pair. These gong tones appear at the end of each line in Example 2.5 and are marked with an asterisk. Much like the relative sense of closure achieved by a half cadence in comparison to an authentic cadence in Western period structure, the striking of the *gong ageng* in coincidence

²⁸ Lou Harrison, “Music for Kyai Hudan Mas,” *Soundings* 10 (Summer 1976): n.p.

²⁹ Neil Sorrell defines *padhang-ulihan* as central to the art of melodic phrasing; they are “terms for balanced phrase-structures, adequately translated by ‘antecedent’ and ‘consequent.’” Neil Sorrell, *A Guide to the Gamelan* (London: Faber and Faber Limited, 1990), 73.

with pitch 6 at the end of each half of the *balungan* creates a finality not achieved midway through each pair of *gongan* with the sounding of pitch 3.

5 6 $\frac{\cdot}{xx}$ 6	5 6 3 5	3 5 $\frac{\cdot}{xx}$ 5	3 5 2 $\overset{*}{\textcircled{3}}$
2 1 2 3	2 $\frac{\cdot}{xx}$ 2 3	2 1 2 3	2 3 5 $\overset{*}{\textcircled{6}}$
5 6 $\frac{\cdot}{xx}$ 6	5 6 3 5	3 5 2 3	2 1 2 $\overset{*}{\textcircled{3}}$
2 1 3 2	5 5 3 2	5 5 3 5	6 6 5 $\overset{*}{\textcircled{6}}$

Example 2.5: *Balungan of Bubaran Robert*, 1976 version

MELODIC ELABORATION: IMPORTANCE OF PITCH COINCIDENCE

With the *balungan* providing the melodic skeleton of the work, the more rhythmically active elaborating parts flesh out the central melody, creating a rich melodic texture in which the “performers do not play or sing in unison with anyone, but need only coordinate with one another in relatively loose ways.”³⁰ The elaborating parts are typically improvised, with the musicians relying on their knowledge of the idiomatic syntax of each instrument, their familiarity with various traditional techniques of embellishment, and their understanding of the relationship of the elaborating parts to the *balungan*.

This process of deriving elaborating parts from the skeletal melody is known as *garap*, meaning “to work out.” A range of forms of elaboration is available to the performers, who make choices based on parameters for ensemble coordination, as well as on their personal

³⁰ Perlman, *Unplayed Melodies*, 38.

musical tastes and the mood of the moment. Thus the various realizations of the embellished melodic lines are marked by individual liberty.

Harrison chose to write out parts for elaborating instruments on many occasions, the music for *Bubaran Robert* included.³¹ According to Miller and Lieberman:

In his early days of writing for gamelan, Harrison was not versed in the creation of ornamental parts of any type, whether in *mipil*, *gembyang*, or *cèngkok* styles. Jody Diamond recalls giving him a “how to” course, working out with him the *bonang* elaborations for *Bubaran Robert* shortly after the 1975 Berkeley summer course.³²

Given in Example 2.6 are the first four *gatra* from *Bubaran Robert*, with Harrison’s *mipil* embellishment in the *bonang*. This ornamental pattern is essentially an oscillation between pairs of *balungan* notes. For example, the first two tones of the *balungan*, tones 5 and 6, are mirrored in the *bonang*, played twice as fast and in alternation. Similarly, the pairs of pitches in the second and fourth *gatra* (5 6, 3 5, and 3 5, 2 3, respectively), as well as the first pair of notes in the third *gatra* (3 5), receive the same embellishment. Exceptions to this pattern occur in conjunction with the final pair of *balungan* pitches in the first and third *gatra*. Here, Harrison writes scalar ascents that culminate on the pitch being held in the *balungan* line and rearticulated at the end of the *gatra* unit. Both patterns of elaboration result in moments of alignment in pitch with the fundamental melody, highlighted in Example 2.6 by the addition of vertical lines drawn between the *bonang* and *balungan* pitches.

³¹ As Harrison became more comfortable with writing for gamelan he often experimented with creative and non-traditional patterns of elaboration, which required notation. We will encounter Harrison’s personal approach to writing elaborating parts in the following chapters of analysis.

³² Miller and Lieberman, *Composing a World*, 173. The authors cite an interview with Jody Diamond, no date provided.

<i>Bonang</i>	5	6	5	6	2	3	5	6		5	6	5	6	3	5	3	5
<i>Balungan</i>																	
		5		6		•		6		5		6		3		5	
						xx											
<i>Bonang</i>	3	5	3	5	1	2	3	5		3	5	3	5	2	3	2	3
<i>Balungan</i>																	
		3		5		•		5		3		5		2		3	
						xx											

Example 2.6: *Bonang* elaboration, *Bubaran Robert* 1976

Through this pinning of the ornamented line to the skeletal melody, *Bubaran Robert* expresses a fundamental principle of gamelan music. As Judith and Alton Becker argue in their article “A Musical Icon,” the most prominent feature of Javanese gamelan music is coincidence.³³ Cyclic in structure, gamelan music is built on the interactions of the various instruments of the ensemble as they play through their individual cycles, an organization of the music often described in terms of the colotomy, discussed above.

The *gongan* (gong phrase) serves as the largest cycle, providing the most basic structure of gamelan music. Within this basic structure, multiple cycles are turning. The *kenongan* is the primary subcycle of the *gongan*, the *kenong* articulating either two times (the halfway point and gong point of the cycle) or four times (marking the four quarters of the cycle) during the *gongan* cycle, determined by the specific form employed. Depending on the complexity of the piece, a variety of other instruments play their own sequences in addition to the soundings of the *kenong*

³³ Judith Becker and Alton Becker, “A Musical Icon: Power and Meaning in Javanese Gamelan Music,” in *The Sign in Music and Literature*, ed. Wendy Steiner (Austin, Tex.: University of Texas Press, 1981), 203-215.

and gong, producing a rich polyphonic texture. While the instruments demonstrate relative independence of each other, the various sequences coincide with the gong—the simultaneous beginning and ending of each cycle.

As illustrated in Example 2.6 above, moments of coincidence also extend to the elaborating parts. The embellished variations of the skeletal melody remain tied to one another and to the *balungan* through pitch alignment at points of metric emphasis. While performers possess a great deal of freedom in realizing individual elaborating parts, they maintain ensemble coordination through their constant awareness of the *balungan*'s melodic shape and their planned points of convergence at cadences and other metrically important moments.

That musical meaning comes from coincidence and alignment of the instruments at various structural moments reflects the importance of coincidence in other realms of Javanese culture:

The multiple cycles of gamelan music, the multiple melodies coinciding at predictable points in the music system, seem related in underlying concept to a similar system of Javanese calendrical cycles. The notion of coincidence and the meanings, the beauty, and the power it generates operate across different kinds of reality. The word *kenong* itself may in Javanese have formerly referred to the coincidence of a particular constellation with the moon which was the beginning of the agricultural cycle.³⁴

The significance of calendrical cycles in Javanese culture is evidenced by the presence of five different cycles within the calendrical system, according to Becker and Becker, who cite a five-day, seven-day, thirty-week, twelve-month, and lunar-month cycle in operation in Java. The Javanese schedule important life events to take place on days deemed particularly auspicious due to the coincidence of many of the cycles.

³⁴ Becker and Becker, "A Musical Icon," 208.

Gamelan scholar Henry Spiller connects musical coincidence to the broader Javanese understanding of time as a series of repeated events:

The predictable coincidences that occur as the different strands of melody and colotomic markers converge are homologous to a perception that history repeats itself on many levels: observable cycles, such as the generational cycle of social roles individuals play as their lives progress, agricultural cycles, temporal and astrological cycles, as well as matters of faith, often associated with Hinduism and Buddhism, such as reincarnation of souls and large-scale temporal epochs.³⁵

Coincidence is a central source of meaning in traditional Javanese culture. Harrison may well have been pleased by the connection between musical structure and the wider culture. The cyclic patterning and alignment of parts at moments of structural importance would appeal to his consistent desire to ground musical invention within a coherent set of “rules.”

METRIC AND RHYTHMIC ORGANIZATION

As stated above, gamelan musicians hear music moving towards a moment of metric emphasis, a rhythmic sensibility often defined by scholars as end-weighted. Applicable to all levels of Javanese metric and rhythmic organization, this approach to rhythm has served to befuddle many Western students studying gamelan. Spiller suggests that a shift in perspective is necessary for understanding the subtle, yet significant, difference between Javanese end-weighted and Western front-weighted interpretations of rhythmic groupings.

A gamelan-oriented sensibility places the metrical emphasis in any rhythmic grouping at the end of the group rather than at the beginning, and associates any rhythmic subdivisions with the beat that comes after, rather than before, the subdivisions. Given 4-beat metrical groupings, most people familiar with Western music would regard the beat with the strongest accent as the first beat;

³⁵ Henry Spiller, “Lou Harrison’s Music for Western Instruments and Gamelan: Even More Western than It Sounds,” *Asian Music* 40, no. 1 (Winter/Spring 2009): 38.

they would count two 4-beat measures as “**one** two three four **one** two three four.” An Indonesian listener familiar with gamelan music is likely to hear the same accents, but if pressed to count it out, would be more likely to regard the strongest accent as the last beat in a group of four rather than the first, and count the same pattern “**four** one two three **four** one two three” (and mourn the absence of a stressed beat **four** to bring things to an end).³⁶

This distinction is readily apparent in the visual grouping of *gatra* in Javanese cipher notation. Separated with white space, the four-beat groupings provide a representation of the Javanese approach to counting. In hearing the music move 3333333 musician would count the grouping as 1-2-3-4 (see Figure 2.2a). Assuming a Western listener would perceive the same metric accents, the counting of these four-beat units from a Western musical perspective “would require counting across groupings,”³⁷ as shown in Figure 2.2b.

Bubaran Robert

	5	6	$\frac{\bullet}{xx}$	6		5	6	3	5		3	5	$\frac{\bullet}{xx}$	5		3	5	2	③	
a. gamelan-style counting									1	2	3	4					1	2	3	4
b. Western counting						1		2	3	4	1					2	3	4	1	

Figure 2.2. Representation of rhythmic counting of *gatra* from a (a) gamelan and (b) Western perspective.³⁸

In transnotating gamelan cipher notation into Western score format, common practice among ethnomusicologists and Western composers of gamelan music is to represent points of

³⁶ Spiller, “Lou Harrison’s Music for Western Instruments and Gamelan,” 36-7.

³⁷ Spiller, “Lou Harrison’s Music for Western Instruments and Gamelan,” 37.

³⁸ This figure is a partial reproduction of Spiller’s Figure 4 from his article “Lou Harrison’s Music for Western Instruments and Gamelan,” 37.

metric emphasis as downbeats. Example 2.7 illustrates this metric shift between cipher and Western staff notation using the first *gongan* of *Bubaran Robert*. The ciphers and Western pitches correlate as follows: 2=E \flat , 3=F, 5=A \flat , and 6=B \flat . The tones of the metrically stressed *kenong* strokes, represented by the ciphers 6 5 5 3 as the final pitches of each *gatra*, appear as downbeats in his Western staff notation (reproduced below in Ex. 2.7). With this metric shift, the first *balungan* pitch occurs not on beat one but on beat two in the Western 4/4 metric scheme. For ease in reading *gatra* groupings, I have inserted dotted lines between each four-note unit in the cipher notation above the staff.



Example 2.7: Transnotation of first *gongan* of *Bubaran Robert*
from cipher notation to Western staff notation

This shift of metrical accent from points of arrival to points of origin presents not only a visual miscue of the underlying rhythmic organization of gamelan music but a potential misinterpretation of the melodic relationship between the *balungan* and elaborating parts. Musicians providing the elaborating parts understand their decorating embellishments to come before the sounding of a principal tone of the *balungan*, creating patterns of melodic elaboration that are anticipatory in structure but also antithetical to the tendency in Western music to elaborate a primary melody note after its attack.³⁹ This important distinction is not easily

³⁹ The argument is somewhat oversimplified, as not all embellishments follow the main note's attack. It remains true, however, that Westerners tend to think of rhythm with respect to accented attack points

comprehended by Western musicians and serves as a point of contention in Spiller's rhythmic analysis of Harrison's *Main Bersama-sama* detailed in Chapter 3.

The Javanese approach to elaboration is perhaps best understood by viewing the metrically accented pitches of the *balungan* as melodic guideposts. As Spiller explains:

Musicians providing elaborating parts do not always elaborate each and every note in the skeleton melody; rather, they regard pitches that are stressed . . . as “goal” pitches (sometimes called *seleh*), and choose an appropriate figuration (*cengkok*, *sekaran*, *kembangan*) to lead rhythmically and melodically to the goal pitch.⁴⁰

Such treatment can be seen in Harrison's *bonang* elaboration in *Bubaran Robert*.

The *bonang*'s oscillation of pairs of pitches presented in the skeletal melodic line demonstrates the second *balungan* pitch to be a goal tone, in that the *bonang* embellishment leads to this point of pitch coincidence (having created a “dissonance” with the *balungan* on its metrically weak initial note of the *gatra*) and anticipates the metrically more important pitch of the *balungan* pair. This pattern also holds for the paired *balungan* pitches in the second *gatra*. Hence Harrison's *bonang* elaboration maintains the traditional interpretation of metrical accents as points of arrival. Example 2.8 illustrates this rhythmic-melodic principle of elaboration, with ornamented groupings indicated by boxes in which the final *balungan* pitch of each box serves as a goal pitch. The stepwise ascent that occurs in the second half of the first *gatra* similarly can be seen from the standpoint of a goal pitch. In other words, what is of importance is not the pitch on which the ascent begins but the pitch on which the decorative figure concludes to coincide with the fourth, and most strongly emphasized, beat of the *gatra*.

followed by weaker beats, rather than consistently leading to points of arrival. Also, *most* of the time, embellishments do follow the structural notes rather than lead into them.

⁴⁰ Spiller, “Lou Harrison's Music for Western Instruments and Gamelan,” 37.

<i>Bonang</i>	5 6 5 6	2 3 5 6	5 6 5 6	3 5 3 5
<i>Balungan</i>	5 6	• 6	5 6	3 5

Example 2.8: *Balungan* pitches as goal tones, *Bubaran Robert*

The balance between melodic freedom and ensemble coordination on the part of the elaborating instruments conveys a value fundamental to the gamelan ethos: restraint aimed at elevating the group over the individual.

Gamelan music of all sorts is about playing together with other people in a unified group in which mutual cooperation is rewarded with harmonious music. Expert gamelan musicians use their knowledge and skill not so much to stand out and shine in the group, but to blend seamlessly into the complex musical texture and make everybody shine—an approach to exerting power in all social interactions which Indonesians tend to value highly.⁴¹

Importantly, it is this very “emphasis on communally produced sound over personal virtuosity”⁴² that served as a powerful force of attraction for Harrison.

CONCLUSION

One of Harrison’s first pieces for gamelan, *Bubaran Robert* displays the composer’s interest in unraveling the mysteries of this foreign tradition. In this work we see him employing a traditional form (the *bubaran*) and creating melodic lines that adhere to the end-weighted rhythmic structure of gamelan music and connect to each other through pitch coincidence. Yet

⁴¹ Henry Spiller, *Gamelan: The Traditional Sounds of Indonesia* (Santa Barbara, Calif.: ABC-CLIO, 2004), xviii.

⁴² Miller and Lieberman, *Composing a World*, 186.

we also see him approaching the Javanese concept of *balungan* with his own melodic sensibilities, not conceiving the structural melody as a memorable “tune” but imparting it with a “wave motion” nonetheless. Harrison’s efforts to remain faithful to the traditional formal principles of gamelan in this exploratory work provide an essential foundation for his later strategies in composing for gamelan with Western instruments.

CHAPTER 3

MAIN BERSAMA-SAMA

Written in 1978, *Main Bersama-sama* for gamelan degung and French horn was Lou Harrison's first attempt at combining Indonesian gamelan with Western instruments. Its title literally means "playing together." Harrison's approach to blending these two traditions, to having them "play together," was to place melody at the forefront of the musical texture. His emphasis on melodic construction appears in his unusual use of unison writing in the opening gamelan section, in his writing of a solo obbligato line shared by the *suling* and French horn, in his method for pinning together the parts, East and West, and in his use of "melodicles" in composing the gamelan parts.

The piece begins with a sixteen-beat *buka* (introduction) played by the *bonang*. Then, in direct contrast to the characteristic stratified polyphony of traditional gamelan music, Harrison writes identical material for all of the gamelan parts to play in unison (except for the *jengglong*, which consistently articulates a half-note pulse), shown in Example 3.1. This atypical appearance of homophonic writing for the gamelan perhaps signals that Harrison was searching for a straightforward way of introducing the gamelan's distinctive timbre to an audience unfamiliar with this ensemble. Another possible motivation for this unison texture is that it calls attention to a hallmark feature of Harrison's music: simply stated melody. Given this single melodic line as his main point of reference, one cannot avoid noticing a linear aspect to the music before its texture becomes more complicated, with the result that one may be distracted from hearing this linear unfolding of melody. This collective articulation of a single melodic

line, labeled part A by the composer, foreshadows Harrison's continued interest in the horizontal construction of the music.

Example 3.1: *Buka* and part A (unison writing), *Main Bersama-sama*

In the following section (part B), the music not only transforms into the layered polyphony characteristic of gamelan but also accommodates the Western instrument in the musical fabric. While making the music more typical of the gamelan tradition through this change in texture, Harrison simultaneously deviates from the tradition by incorporating an instrument whose origins lie on the other side of the world. Harrison softens this cultural

disjunction by first introducing the obbligato¹ melody with the *suling* (end-blown bamboo flute), an instrument typically found within a *gamelan degung* ensemble.² After the *suling* has completed its melodic statement, the French horn enters to reiterate the same melodic idea. While the *suling* and French horn have unique timbres, their commonality as wind instruments serves to distinguish their shared melodic line as the featured element in this section of the music.

As aural interest shifts to the solo instrumental melody in part B, the previously cohesive gamelan melody fragments into independently moving parts and the gamelan begins to sound accompanimental in function. The *suling* takes center stage beginning with its pick-ups into m. 10. The *suling* plays two related phrases, subsequently restated by the French horn, after which the two instruments continue to alternate melodic material throughout this section of the work. Although Harrison varies the initial pairing of four-measure phrases found in mm. 9-25 with phrase groupings of three plus five measures in the second alternation of identical melodic material between *suling* and horn in mm. 25-41, he maintains an underlying structure of eight measures per melodic recitation.

Example 3.2 shows this variance in Harrison's construction of 8-measure melodic statements. The first statement (Example 3.2a) displays balanced 4 + 4 phrasing. Within these 4-bar units, Harrison is playing with melodic subgroupings, indicated by his notation of slur markings. The first 4-bar unit articulates a 1 + 3 division of the melodic material, with each

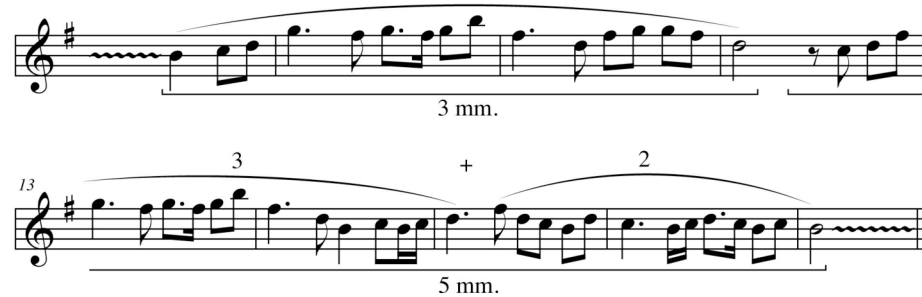
¹ I am using this word in the sense of its reference to a "necessary" or "indispensable" instrumental part, essential to a work's structure. In this work, Harrison does not treat the *suling*/French horn line as a countermelody but as a prominent melody that lies on the musical surface.

² Henry Spiller provides a list summarizing the instrumentation of various ensembles of Indonesia, Cambodia, and Thailand in an appendix to his book *Gamelan: The Traditional Sounds of Indonesia* (Santa Barbara, Calif.: ABC-CLIO, 2004), 349-354.

subphrase beginning with the same 3-note pickup. The second 4-bar unit shifts to a 2 + 2 subdivision that begins with a near restatement of the third bar of the first unit, thus tying the two together into a cohesive 8-measure melody. The second melodic statement (Example 3.2b) expresses a 3 + 5 subdivision, as stated above. The second section of the melody is further articulated into two subgroups of 3 and 2 measures, respectively, demarcated, again, by Harrison's use of slurs.



Example 3.2a: 4 + 4 measure construction of 1st melodic line played by *suling*/French horn (mm. 9-25), *Main Bersama-sama*



Example 3.2b: 3 + 5 measure construction of 2nd melodic line played by *suling*/French horn (mm. 25-41), *Main Bersama-sama*

Harrison's play with melodic construction within a defined length of phrase is but one example of "the polarity between the free and the controlled" that he found "very stimulating."³ In *Main Bersama-sama*, he finds subtle nuances of expression within seemingly simple and straightforward melodies, all the while adhering to a structural framework grounded on the consistent succession of eight-measure melodic segments. But while Harrison writes melodic interest in the *suling* and French horn, he designs this solo line to conform to the gamelan's structural framework. It is, in fact, the gamelan that provides phrase structure and organizes the flow of music, specifically through the motion of the gong cycle.

The measured cycling of eight-bar units corresponds with the length of the gong phrase, and each of the above-mentioned melodic statements comes to completion with the striking of the gong. In his Western score of *Main Bersama-sama*,⁴ Harrison notates these moments of arrival at the gong tone with an "X." The culmination of each gong cycle thus occurs on the downbeats of mm. 17, 25, 33 and 41, emphasizing the note B (see Example 3.3). Though only mm. 9-27 are shown here, the same kind of careful patterning occurs throughout the rest of the piece. Harrison also emphasizes the internal subdivision of the gong cycle into two equal halves with the striking of a gong, this time in conjunction with the note G and occurring on the downbeats of mm. 13, 21, 29, and 37. In mm. 9-25 this internal marker coincides with the end of the first four-measure phrase played by the *suling* and French horn, while the obbligato melody's shift to a three-plus-five construction in mm. 25-41 creates an incongruence with this central

³ Vivian Perlis, *Charles Ives Remembered: An Oral History* (New York: Da Capo Press, 1974), 199.

⁴ As we have observed above, the nature of Harrison's score is a little complicated. I call this a Western score because he writes out all of the individual parts in staff notation, rather than allowing the elaborating parts to be realized by the performers, as is the practice in traditional gamelan performance. Harrison also presents points of structural importance, such as gong strokes, as downbeats in staff notation.

division of the gong cycle. Harrison's play with such structural looseness between the gamelan and Western instrument becomes more prominent in *Threnody for Carlos Chávez* and, in fact, serves as the central creative force of the work, as we will see in Chapter 4.

The image displays three staves of musical notation, each representing a different instrument in a gamelan ensemble. The instruments are labeled on the left: *Suling*, *Saron*, *Panerus*, *Bromong*, *Pirnik*, *Gambang*, *Kendang*, and *Jengglong*. The notation is written in a Western staff format with a key signature of one sharp (F#) and a time signature of 2/4. The *Jengglong* part is circled in blue in each staff, indicating the specific pitches being cycled. A red bracket at the bottom of each staff indicates the 'gong cycle'. The first staff shows the *Jengglong* part starting on a whole note, followed by a half note, and then a quarter note. The second staff shows the *Jengglong* part starting on a whole note, followed by a half note, and then a quarter note. The third staff shows the *Jengglong* part starting on a whole note, followed by a half note, and then a quarter note. The notation is complex, with many notes and rests, and includes various musical markings such as *French Horn*, *20*, *29*, and *30*.

Example 3.3: Cycling of *jengglong* pitches, *Main Bersama-sama*

Harrison crafts the cyclic organization of the music not only through the regularity of the striking of the gong but through the recurrence of a structural melody of half-notes and whole-notes played by the *jengglong*. As shown in Example 3.3, throughout part B the *jengglong* repeats a ten-note series (the pitches G, B, F#, D, G, B, F#, D, C, and B), thereby establishing the underlying melodic motion of the gong phrase and serving as a point of reference for all of the other instruments. The pitches of this skeletal melody, or *balungan*, become guideposts for the individual melodic and rhythmic elaborations played by the other members of the *degung* ensemble. Furthermore, while the fixed length of the gong cycle is reflected by the consistent eight-bar phrasing of the *suling*/French horn melody, the specific pitches played by the *jengglong* are mirrored in the seemingly free and flexible obbligato line.

A comparison of the two lines reveals that Harrison used frequent pitch alignment as a means for having the two parts play together and, more specifically, for incorporating the French horn into the musical texture. The *suling*/French horn line can be reduced to the skeletal pitches of the *balungan*, revealing the remaining pitches to be a melodic ornamentation of that underlying structural melody (see Example 3.4). The solo line, far from expressing independence from the gamelan, embellishes the *balungan*, which is the structural underpinning of the work. Rather than writing two co-existent melodies, one governing the stratified voices of the gamelan and one serving as a prominent solo line, Harrison developed a single melody line as the basis of the music's structure. The steady occurrence of pitch coincidence between the *suling*/French horn melody and the *balungan* is thus a reflection of this shared melodic structure, rather than the result of a more deliberate effort to align two separate melodies played by East and West at key moments of formal structure, as we will see in Chapter 5.



Example 3.4: *Suling*/French horn melody an embellishment of the underlying structural melody, *Main Bersama-sama*

Looking more closely at the relationship between the *suling*/French horn melody and the *balungan*, we can observe another kind of Western influence filtering into the way Harrison is organizing this layered musical texture. Beginning with the third measure of Example 3.4, each downbeat the *suling*/French horn and *jengglong* land on are of the same pitch class; and, until the end of the melodic segment, they approach each similar pitch in contrary motion. I have used arrows to indicate the direction of approach to downbeats in Example 3.4 as a way of highlighting the prevalence of contrary motion. It is as if Harrison is following Western contrapuntal rules, something we will see him abandon in his formulation of the relationship between Western instrument and gamelan in *Threnody for Carlos Chávez*.

What is unknown is Harrison's compositional process of creating the parts. Did Harrison compose the gamelan *balungan* and then embellish this structural melody to arrive at the more tuneful melody played by the *suling* and French horn, or did he first hear the fleshed-out melody and subsequently extract structural pitches from the obligato line to establish the underlying melodic progression? Available sketch material fails to provide any answers. One page from

Harrison's personal notebooks shows both the gamelan's "tutti" melody in part A, with the structural pitches of the *jengglong* written with downward stems, and the *jengglong*'s skeletal framework for part B (see Example 3.5). This outline of the *jengglong*'s pitches in part B also appears (in a slightly modified form) on another page from the composer's notebooks that maps the *gambang* part in relation to this melodic skeleton (see Example 3.6). Taken together, these two pages provide a clear indication that Harrison's decisions of melodic patterning match the sequence of underlying pitches established by the *jengglong*. On a separate page exists a sketch of the French horn melody, written a fourth lower than it appears in the published version of the piece to accommodate the French horn's transposition (see Example 3.7). Crossed-out presumably by Harrison himself, this sketch reveals an earlier, more simplistic conception of the second half of the melodic material and makes no mention of the presence of the *suling* as a partner in conveying the melodic idea. But more important to the present investigation of draft material for clues to Harrison's process of making the gamelan and French horn play together is the visual independence of the French horn melody. What is absent in the sketches is a direct pairing of the horn melody and *jengglong* pitch structure similar to that of the *gambang* and *jengglong*. While it is obvious Harrison linked all parts through a single melody, it remains unclear whether he moved from West to East, from a Western framework of melody towards the Indonesian concept of *balungan*, in his creation of *Main Bersama-sama* or vice versa.⁵

Given the evident correlation between the *suling*/French horn and *jengglong* parts, it is striking that we do not readily hear the obbligato melody as derivative from the gamelan structure. While the *suling*/French horn line may be viewed as one particular elaboration of the *balungan*, just as the *saron*, *panerus*, *bonang*, *rincik*, and *gambang* are elaborations of the

⁵ Lou Harrison notebooks. MS 132 ser.2. Special Collections and Archives, University Library, University of California, Santa Cruz.

MAIN BERSAMA-SAMA

BUKA

humi

(jengglong)

(alternate)

I

II

Example 3.5: Sketch of unison melody in part A (*jengglong* pitches indicated with downward stems) and the gong cycle, with structural melody played by *jengglong*, for part B, *Main Bersama-sama*. Used by permission.

for Bill George

Gambang

Buka

Jengglong & Gongs

2nd Gong

Example 3.6: Sketch mapping the *gambang* part to the underlying structural melody, *Main Bersama-sama*. Used by permission.

structural melody, why does this line stand out as melody rather than simply as a layer of embellishment? Timbre is the obvious foreground answer. But another answer might lie in Harrison's rhythmic construction of the individual parts. Unlike the rhythmic regularity of the accompanimental gamelan parts, with these instruments maintaining almost constant eighth-note or sixteenth-note motion, the *suling*/French horn line unfolds in a less predictable, or fixed, way.



Example 3.7: Sketch of French horn melody with a simplified second half (the material presented after the internal repeat sign), *Main Bersama-sama*. Used by permission.

Various note values, from quarter-notes to dotted-eighths to sixteenths, create a flexibility of rhythmic patterning not afforded the other instruments. The use of pick-up notes helps to generate the line's forward motion. These pick-up notes are present not only at the start of each eight-bar melodic statement, or even just at the beginning of each four-measure phrase, but occur with each melodic fragment, directing the melodic motion and contributing to the perceived

sense of elasticity and freedom enjoyed by the *suling* and French horn. That Harrison imbued this line with expressive content is evident in his application of slur markings, which convey the easy, flowing character of the melody. Furthermore, the *suling*/horn line is the only part given phrase markings.

Harrison's compositional emphasis on the obbligato melody can also be observed, in Henry Spiller's estimation, in the harmonic implications that can be inferred from the construction of the solo line and realized in the gamelan parts, more specifically the *bonang*. Analyzing the opening eight-measure melody played, in turn, by the *suling* and French horn in part B, Spiller understands the pitches to imply "a chord progression from G major to B minor (at m. 11) back to G major (at m. 13). The second half of the solo part also implies a chord progression, this time ending with B minor (at m. 17)."⁶ From this assessment, Spiller theorizes a compositional method for the piece:

I believe that Harrison conceived the gamelan part he composed as a kind of chordal accompaniment that explicitly supports the melody's implied harmony, with the structural pitches providing a kind of bass line (ironically analogous to that of Bach's "Prelude" in C), and the other gamelan instruments providing similarly analogous decorating figurations that prolong the bass note's harmony. Although these figurations are stepwise, they outline triads; the effect of triadic harmony is further strengthened because "stepwise" in the context of the hemitonic pentatonic degung tuning, which can be roughly approximated with the Western pitches G-F#-D-C-B, includes a couple of major thirds (D-F# and G-B), which again supports a harmonic hearing of the figurations.⁷

The significance of this harmonic reading of *Main Bersama-sama* comes in its relationship to the rhythmic construction of the gamelan parts, notably the *bonang*. Spiller's primary argument is that Harrison, perhaps unwittingly, favored Western rhythmic sensibility in writing the gamelan accompaniment to the melody's implied harmony. As represented by

⁶ Henry Spiller, "Lou Harrison's Music for Western Instruments and Gamelan: Even More Western than It Sounds," *Asian Music* 40, no. 1 (Winter/Spring 2009): 42.

⁷ Ibid., 42.

Javanese *kepatihan* notation, Indonesian musicians sense metrical accent as occurring at the end of each four-note grouping rather than at the beginning (as a Westerner would hear it). In other words, gamelan music takes an end-weighted approach to rhythm. In terms of conventional techniques of elaboration performed on the individual instruments, the musicians regard pitches that receive metric emphasis as goal tones, creating melodic figurations that lead to the upcoming goal note. These goal notes are usually played on the *jengglong* in traditional *degung* repertory. As Spiller demonstrates, Harrison's use of figuration establishes harmonic support and, as a result, expresses a front-weighted Western approach to rhythmic organization.

The notated *bonang* part clearly illustrates a reversal in direction of melodic reference. Whereas gamelan music is built on anticipation, on fleshing out a basic melody in expectation of the upcoming structural pitch, *Main Bersama-sama* looks backwards rather than forwards in its pitch groupings. Spiller offers an example of a typical *bonang* idiom in Sundanese *sekar alit* ("small piece"), which I have reproduced in Example 3.8 below. He notes that the *bonang* "anticipate[s] the upcoming structural pitch by iterating it off the beat in broken octaves."⁸ In *Main Bersama-sama*, Harrison employed the characteristic *bonang* figuration but altered the point of reference.

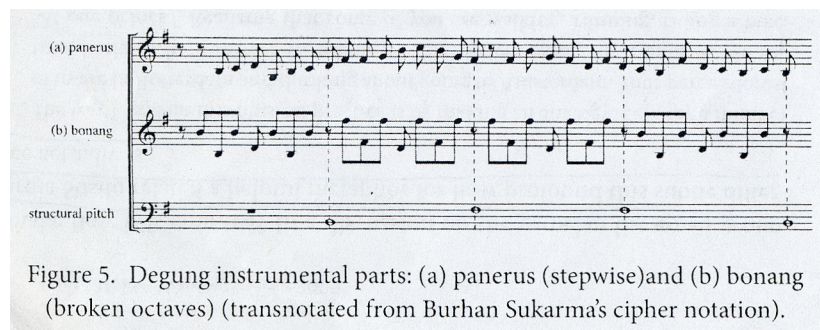
The notated *bonang* part includes the typical idiomatic broken octaves; instead of anticipating the upcoming structural pitch, however, the part directs the *bonang* player to *sustain* the previous structural pitch instead (see Figure 6c). The result is not especially dissonant to Western sensibilities, but it utterly confounds normative Sundanese expectations.⁹ [emphasis original]

Specifically, Spiller highlights the octave F#'s in m. 11 that follow the *jengglong*'s skeleton melody pitch and the octave D's in support of the *jengglong*'s pitch in the succeeding measure.

⁸ Ibid., 40.

⁹ Ibid., 42.

Example 3.9 provides a replication of Spiller's Figure 6c. Having questioned the implications surrounding the relationship developed between the solo line and gamelan parts, Spiller concludes that "the piece makes the gamelan's rhythmic sensibility conform to Western expectations, which in turn transforms gamelan music's layered, goal-oriented, end-weighted approach to polyphony into a sort of Western homophonic, front-weighted, harmonic accompaniment."¹⁰



Example 3.8: Reproduction of Spiller's Figure 5. *Bonang* figuration anticipates the upcoming structural pitch.

As Spiller has persuasively argued, rhythmic expectations have been transformed; but Harrison's unconventional treatment of the gamelan extends beyond this rhythmic understanding of the music and can be found in his melodic conception of the gamelan parts as well. Rather than imitate traditional techniques or allow for the flexibility of performance that comes with unwritten elaborating parts, Harrison used his own unique, game-like compositional strategies to construct the gamelan's melodic material. While I have thus far shown Harrison's love of melody to be expressed in length of phrase (the *suling*/French horn melody) and in the creation

¹⁰ Ibid., 43.

Figure 6 consists of three musical staves labeled (a), (b), and (c). Each staff contains multiple staves for different instruments: suling, sarong, panerus, bonang, rindik, gambang, kendang, and yenglong. The notation is in 5/8 time. (a) shows the end of the first section. (b) shows the beginning of the second section, with some notes circled. (c) shows the bonang's broken octave figurations, with some notes circled.

Figure 6. Excerpt from score of *Main Bersama-sama* (source: Harrison 1985): (a) last few measures of the first (unison) section, (b) excerpt of second (sekar alit) section, and (c) bonang's broken octave figurations that follow (rather than anticipate) the skeleton melody pitch.

Example 3.9: Reproduction of Spiller's Figure 6c. *Bonang* figuration follows (rather than anticipates) the skeleton melody pitch played by the *jengglong*, *Main Bersama-sama*.

of underlying structure (the *balungan*), I will also demonstrate how he applied his melodic interest to the creation of small musical segments based on melodic contour.

Harrison's self-imposed compositional game of patterning and of creating limitations through the use of small melodic cells ("melodicles") can be found throughout *Main Bersama-sama*. Although the gamelan parts display typical four-beat groupings of *gatra*, close investigation of Harrison's pitch choices reveals deliberate and intricate patterning much in line with his compositional approach to many of his works for Western instruments. Harrison experimented with the use of "melodicles" as early as the 1930s, and the importance of this technique as a component of Harrison's compositional style is evidenced by his discussion of such motivic manipulation as the first item in his *Music Primer*.¹¹ This technique permeates the melodic structure of *Main Bersama-sama*, showing Harrison's personal (and Western) voice in his use of the gamelan.

Harrison's rigorous use of melodicles is best seen in the *gambang* part. A xylophone with wooden keys, the *gambang* is distinct in timbre from the bronze instruments that typically make up a *degung* ensemble. Perhaps this timbral contrast drew Harrison to spend compositional energy on the *gambang*'s embellishment of the structural melody. In creating the melodic line to be played by the *gambang*, he limits himself to two contour patterns in determining the *gatra* played in part B. Each contour pattern can be described in terms of interval ascent or descent between adjacent pitches, with ascent marked by a "plus" sign and descent a "minus" sign, and a number indicating the interval size. Thus the motion from pitch 2

¹¹ Lou Harrison, *Lou Harrison's Music Primer: Various Items About Music to 1970* (New York: C. F. Peters Corporation, 1971), 1.

to pitch 3 would be labeled +1.¹² In this labeling system, the first *gatra* (3635) can be labeled by its contour, +2 -2 +1, and this pattern will from now on be known as melodic *a*. The second *gatra* (3233) displays the second contour pattern, -1 +1 0 (or octave equivalence), which will be called melodic *b*. Each notated line of four *gatra* consists of an alternation of melodic *a* and melodic *b* (see Figure 3.1):

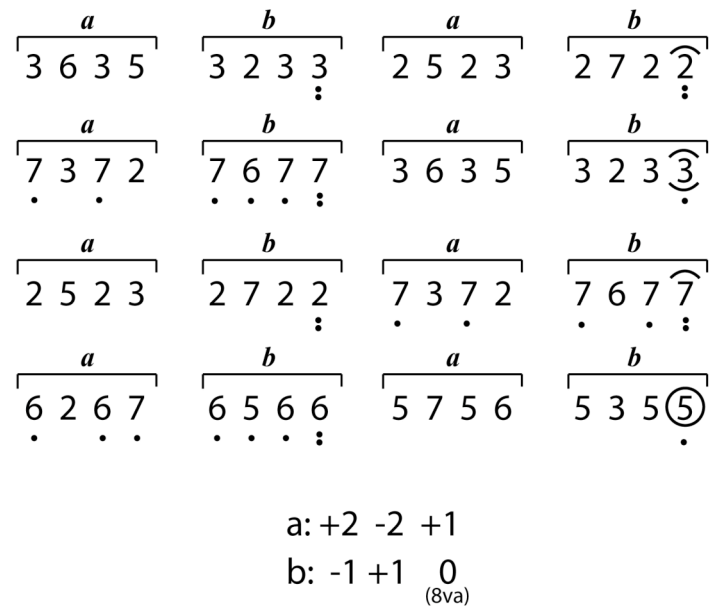


Figure 3.1: Two contour patterns, labeled melodic *a* and melodic *b*, played by the *gambang* in Part B, *Main Bersama-sama*¹³

¹² For practical purposes, each successive step between numbered pitches is counted as an interval size of 1, regardless of the gapped intervals created by the *pelog* scale. Additionally, pitches 1 and 4 are disregarded in counting interval size, with the motion from 7 to 2 and from 3 to 5 seen as successive steps within the melodic framework of the piece. Thus, an ascent from 7 to 2 would be labeled +1; likewise, a descent from 5 to 3 would be labeled -1. Interval size is also calculated according to shortest distance traveled. For example, the motion from 2 to 7 in the fourth *gatra* of the first line is considered to be a descent of one scale degree (favoring conjunct melodic motion) rather than an ascending leap of four scale degrees.

¹³ A pitch discrepancy occurs in the second beat of the second *gatra* of the last line. The published score includes individually notated parts using ciphers and a full score written in Western notation, and, whereas the *gambang* part indicates that pitch 2 is to be played at this moment, the full score clearly indicates the pitch B (corresponding to pitch 5). Due to the unmistakable alternation of melodic *a* and *b*, it seems that pitch 5 is the intended pitch, and that Harrison's writing of pitch 2 was a simple oversight. Furthermore, the full score appears in Harrison's beautiful handwriting, whereas the individual parts appear to be copied in someone else's hand. Lou Harrison, *Main Bersama-sama* (Lebanon, N.H.: American Gamelan Institute, n.d.).

But what if one considers the melodic motion between *gatra*? Here, too, Harrison deliberately constrains his options, and, in doing so, carefully links melodicles *a* and *b* through the use of two new melodicles. Combining the last two pitches of each odd-numbered *gatra* with the first two pitches of each even-numbered *gatra* (for example, 3532 as the connector spanning across the first two *gatra*) results in melodicle *c*, with the contour +1 -1 -1. Similarly, melodicle *d* is created through the connection between the last two pitches of each even-numbered *gatra* and the first two pitches of each odd-numbered *gatra* (for example, 3325 formed from the respective halves of the second and third *gatra*), and each occurrence of melodicle *d* conforms to the contour of 0 (or octave equivalence) -1 +2. Melodicles *c* and *d* alternate in the same consistent fashion as the rotation of melodicles *a* and *b* (see Figure 3.2).

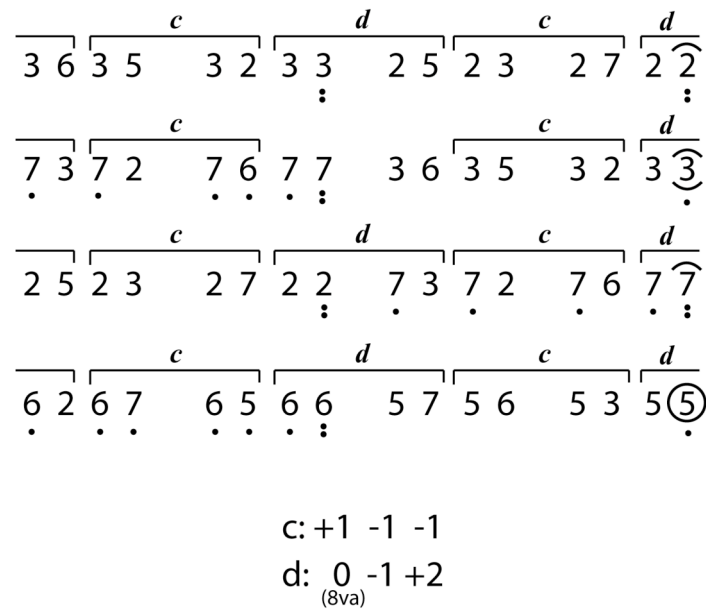


Figure 3.2: Two contour patterns, labeled melodicle *c* and melodicle *d*, that connect *gatra*, *Main Bersama-sama*

Harrison's use of contour as a structural element extends to abstracted layers of the work. By stepping back from the surface level, we discover Harrison's awareness of the possibilities for cohesion at various levels of structure. As noted above, the end-directed structure of melodic motion in gamelan music places emphasis on the last pitch of each *gatra*. Within each *gatra* the second pitch also receives rhythmic/structural prominence, second in strength to the final pitch. Harrison adheres to this metric hierarchy in his writing for the *gambang*, establishing "pedal" tones on the weak beats of each *gatra* (beats one and three). The second and fourth beats are more active and deserve further consideration.

In the melodic progression of the pitches located on strong beats, Harrison's layered organization continues to become evident. These pitches all fall into a single melodic contour, labeled melodic *e* (see Figure 3.3). Again, Harrison carefully connects each occurrence of melodic *e* with an additional contour pattern. Melodic *f*, contour +1 +1 -1, bridges the four-note groupings and is found consistently throughout this section, varied through use of its retrograde in one statement (see Figure 3.4).

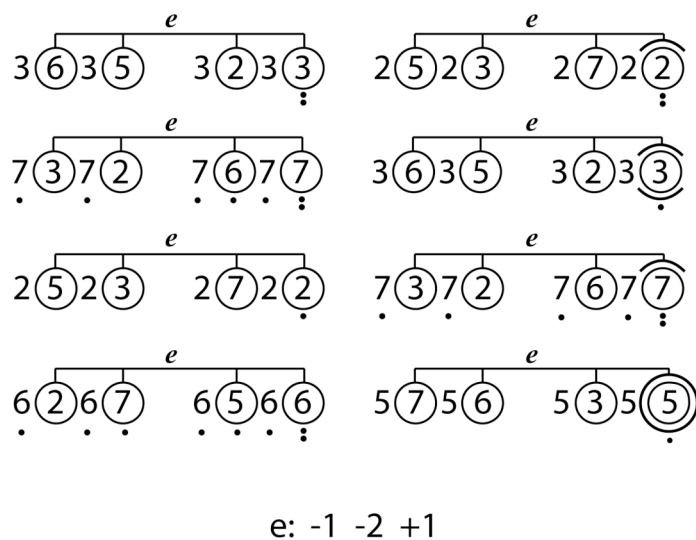


Figure 3.3: Melodic *e* operating at a level of melodic abstraction, *Main Bersama-sama*

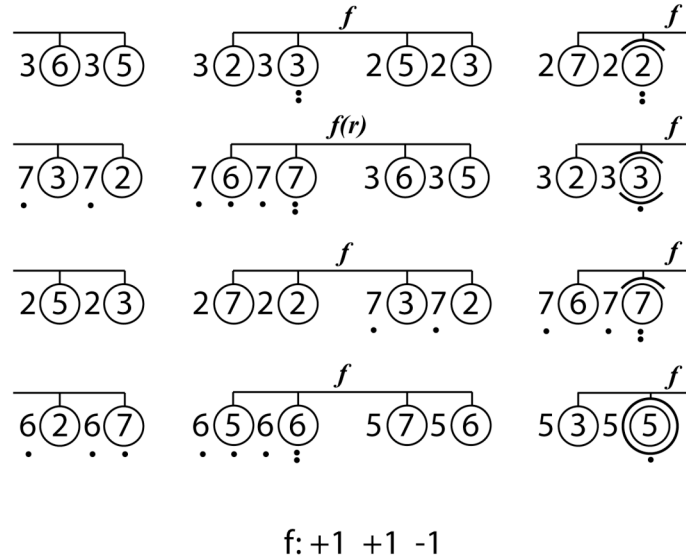


Figure 3.4: Melodicle *f*, connecting each occurrence of melodicle *e*, *Main Bersama-sama*

One further distillation of the *gambang*'s melodic progression leaves us with the fourth, and metrically strongest, pitch of each *gatra*. In observing melodic structure at this larger level, we find a new melodicle (see Figure 3.5). The first line reduces to 5332, with the contour -1 0 -1 (melodicle *g*). Lines three and four also follow this pattern; the second line, however, deviates from this pattern and has the contour -1 +3 -1 (melodicle *h*). Harrison's reason (or perhaps compositional need) for altering the second line derives from his pervasive use of melodicle *g*. Not only does this melodicle serve as the structure for lines one, three, and four at this architectural level, but it also operates as the bridge that connects each line to the others (see Figure 3.6). Plainly stated, melodicle *g* joins the last two pitches of one line to the first two pitches of the following line, resulting in a tightly woven melodic fabric.

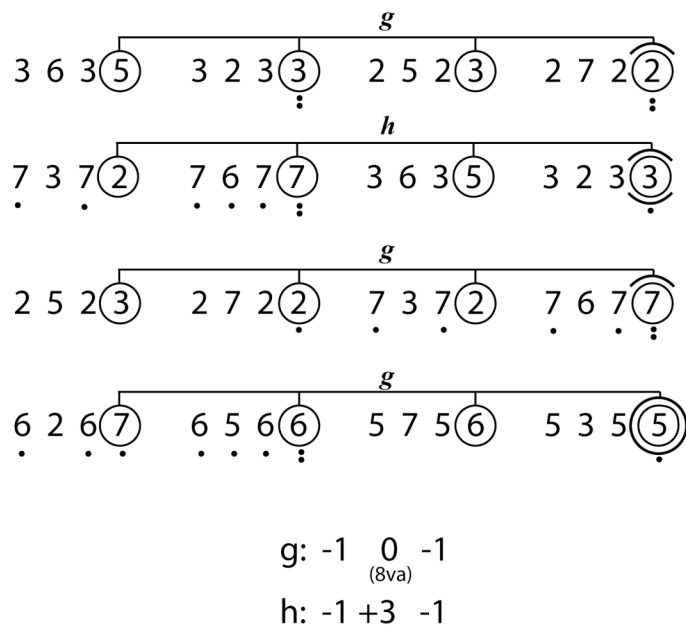


Figure 3.5: Melodics *g* and *h*, operating at the level of beat “4’s,” *Main Bersama-sama*

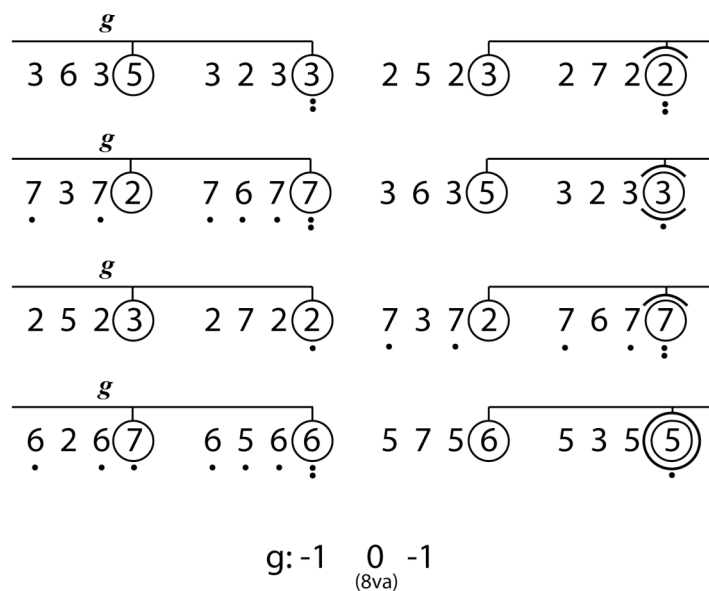


Figure 3.6: Melodicle *g*, connecting each line to the next, *Main Bersama-sama*

Harrison's intricate scheme of overlapping occurrences of melodic *g*, however, could not be negotiated flawlessly, necessitating his one break with the pattern in the second line (the presence of melodic *h*). If this line were to follow the overriding contour pattern, its pitches would be transformed to 2776 (contour of -1 0 -1). In order to maintain the use of melodic *g* as a connector between lines, the pitches of the third and fourth lines would also face alteration. The original sequence of pitches, 5332 2753 3227 7665, would become 5332 2776 6553 5332. What is immediately noticeable about this transformation is its effect on the cyclicity of the *gongan*. Harrison's "flawed" version with the use of melodic *h* upholds the length of the recurring gong cycle. The transformed version, on the other hand, results in a cycle of only three-quarters of the established length, which would necessitate a restructuring of the composition's formal framework. Hence, Harrison's insertion of melodic *h* preserves the underlying structure of the work while using melodic *g* as thoroughly as possible. Of even greater practical consideration is the alignment of these final pitches of each *gatra* with the melodies operating at the surface (melodies *a* and *b*).

In addition to contour patterning, Harrison further organizes the *gambang* pitches through the process of repetition. In Figure 3.7, notice groupings that span two *gatra*. The first three pairs of *gatra* repeat, providing another layer of structure to the first three lines. Harrison seems to be playing with groupings of three against two. The fourth line remains more independent from the first three lines. The line, however, is not without ties to other formal aspects of the composition. The final pitch of each *gatra* in this line (7665) comes from the final pitch of each line in part A.

Buka: $\overline{777} \cdot 7$ $2 \ 7 \ 6 \ 6$ $\cdot^7 6 \ \overline{567}$ $\cdot \overline{65} \ 6 \textcircled{5}$

A: $\dots \widehat{2}$ $\dots \widehat{2}$ $\cdot \ 2 \ 5 \widehat{2}$ $\dots 2 \textcircled{7}$
 $3 \ 2 \ 7 \widehat{6}$ $\cdot \overline{56} \ 7 \widehat{5}$ $\cdot \ 5 \ 5 \widehat{5}$ $\dots 5 \textcircled{6}$
 $\cdot \overline{53} \ 5 \ \widehat{32}$ $\overline{727656} \widehat{7}$ $\dots 3 \widehat{2}$ $7 \ 6 \ 7 \textcircled{6}$
 $\dots \widehat{2272}$ $\overline{76567676}$ $56 \ 7 \ \overline{7777}$ $\overline{777656} \textcircled{5}$

B: $\{ 3 \ 6 \ 3 \ 5 \overset{1}{\cdot} \ 3 \ 2 \ 3 \ \underset{\cdot}{3} \} \{ 2 \ 5 \ 2 \ 3 \overset{2}{\cdot} \ 2 \ 7 \ 2 \ \underset{\cdot}{2} \}$
 $\{ 7 \ 3 \ 7 \ 2 \overset{3}{\cdot} \ 7 \ 6 \ 7 \ \underset{\cdot}{7} \} \{ 3 \ 6 \ 3 \ 5 \overset{1}{\cdot} \ 3 \ 2 \ 3 \ \underset{\cdot}{3} \}$
 $\{ 2 \ 5 \ 2 \ 3 \overset{2}{\cdot} \ 2 \ 7 \ 2 \ \underset{\cdot}{2} \} \{ 7 \ 3 \ 7 \ 2 \overset{3}{\cdot} \ 7 \ 6 \ 7 \ \underset{\cdot}{7} \}$
 $\underset{\cdot}{6} \ 2 \ \underset{\cdot}{6} \textcircled{7} \quad \underset{\cdot}{6} \ \underset{\cdot}{5} \ \underset{\cdot}{6} \textcircled{6} \quad 5 \ 7 \ 5 \textcircled{6} \quad 5 \ 3 \ 5 \textcircled{5}$

Figure 3.7: Melodic repetition in part B; relationship between part A and fourth line of part B, *Main Bersama-sama*

As we have seen, Harrison's melodic inventiveness is expressed in a variety of forms in *Main Bersama-sama*, his first attempt at combining gamelan with Western instruments. In finding opportunities for writing both graceful melodic lines and tightly knit patterns, Harrison shows that a simple, seemingly "tuneless" melody (by Western standards) can give rise to expressive freedom and intricate melodic organization based on compositional constraint. Taking a single melody (the *balungan*) as the guiding linear strand for the work, he employs the gong cycle as the frame for melodic motion and thus adopts the structural underpinning of gamelan. But his emphasis on melodic construction reveals his distinctive voice, as he finds himself entwined in the interplay between freedom and method that defines these hybrid works.

This interplay becomes all the more pronounced in his next experiment in joining a Western instrument with gamelan, *Threnody for Carlos Chávez*.

CHAPTER 4

THRENODY FOR CARLOS CHÁVEZ

Written for gamelan and viola, *Threnody for Carlos Chávez* demonstrates Harrison's interest not only in blending gamelan and a solo Western instrument but also in exploring the interaction between formal design and the apparently spontaneous development of musical material. Originally given the working title of *Main Bersama-sama II*, the piece is a "playing together" of structure and freedom, as well as of East and West. As my analysis will reveal, Harrison took great care in creating the gamelan's multiple layers and in carefully devising the ensemble's patterned phrasing at multiple levels of structure only to challenge this regularity, deliberate patterning, and cyclicity with the melodic freedom and rhapsodic character of the viola line. We can see his craft in both his planning of the gamelan layers and in the quasi-improvisatory character of the viola writing. Harrison casts the viola as a kind of independent "agent," as if an improvising player is coexisting with the highly structured gamelan. Just as Harrison has repeatedly caused us to reflect on the fundamental nature of "melody" and "form," he may here be calling attention to the Western propensity for thinking of the composer as the controlling force. The composer *is* still controlling things here, but the violist *seems* to operate as a kind of free agent. *Threnody for Carlos Chávez* thus simultaneously displays both Harrison's decades-long fascination with combining diverse sound resources and his belief that having a formal compositional plan, far from inhibiting the sense of flexibility or play within in a work, strengthens a work's creative possibilities.

That this tension between architectural design and expressive liberty held Harrison's interest is evidenced by remarks from many of his students. Drawing from their interviews with several of Harrison's students, Leta Miller and Fredric Lieberman write:

Those who have studied composition with Lou often highlight his emphasis on freedom supported by structure. . . . [Robert] Hughes, Richard Dee, Seymour Barab, and others report that Lou teaches composition by assigning exercises that seem at first so restrictive as to stifle individuality. By learning to find the expressive possibilities within the rules, however, the student gains exceptional control of the compositional process.¹

In examining *Threnody's* formal design, I find that Harrison exercised compositional control by employing John Cage's square root form as the basis of the gamelan's structure. Harrison included a brief description of Cage's square root form in his *Music Primer* published in 1971, stating that Cage invented this form in the mid-1930s and "refer[red] to the type of structure as 'the whole having as many parts as each unit has small parts, & these, large & small, in the same proportion.'"² Adopting this model, Harrison organized the basic structure of *Threnody for Carlos Chávez* as a pattern of nine *gongan* (gong phrases), each consisting of nine primary beats and written as nine-measure units in the Western score.

Harrison's nine by nine construction allows for groupings built on patterns of three at different levels of architecture, with each grouping arranged into 2 + 1 divisions. This

¹ Miller and Lieberman, *Composing a World: Lou Harrison, Musical Wayfarer* (Urbana, Ill.: University of Illinois Press, 2004), 220.

² Lou Harrison, *Music Primer: Various Items About Music to 1970* (New York: C. F. Peters Corp, 1971), 10. Harrison provides a simple example of how Cage's square root form might be realized: "Suppose, for example, that one composes a phrase ten measures long. The entire form will now be 10 x 10, or, 100 measures. Suppose that the original phrase divides naturally (by cadences or differences) into groups of 4, 3, & 3 measures. The 100 measures whole form will now divide into sections of 40, 30, & 30 measures. Each 10 measures (throughout) will repeat the original 4, 3, 3 grouping, & the large form will reflect these groups as sections—the pattern is heard both in the large & in the small. There are so many ways of using this idea that I have only explained the simplest." It is interesting to note that Harrison connects the use of square root form with Asian music, commenting that "Young San Whay Sang (the splendid Korean Court work) contains one movement which is perfectly formed in square root form, as to phrase & length, but is varied slightly as to sub-groupings."

underlying structure based on threes begins with the basic design of the *gongan*, played by the *jengglong*. Each of the nine *gongan* conforms to one of three melodic sequences, labeled A, B, and C in the condensed score for gamelan written in cipher notation.³ With each melody the *jengglong* varies its rhythmic patterning, further distinguishing each section from the others: in A, the *jengglong* plays constant dotted half-notes; in B, the same three-bar rhythmic pattern is repeated in each of the three main segments; and, in C, every measure has the same rhythmic pattern (see Example 4.1). The three melodic segments are organized into the pattern of AAB AAB CCB to create the piece's fundamental structure based on nine *gongan*.



Example 4.1: Three *gongan* patterns played by the *jengglong*, *Threnody for Carlos Chávez*

At a macro level, the piece's eighty-one measures divide into three sections of twenty-seven measures each. The first two sections follow a repeated pattern of AAB, and the third section differs with its introduction of the C melody. This melodic change in the third and final

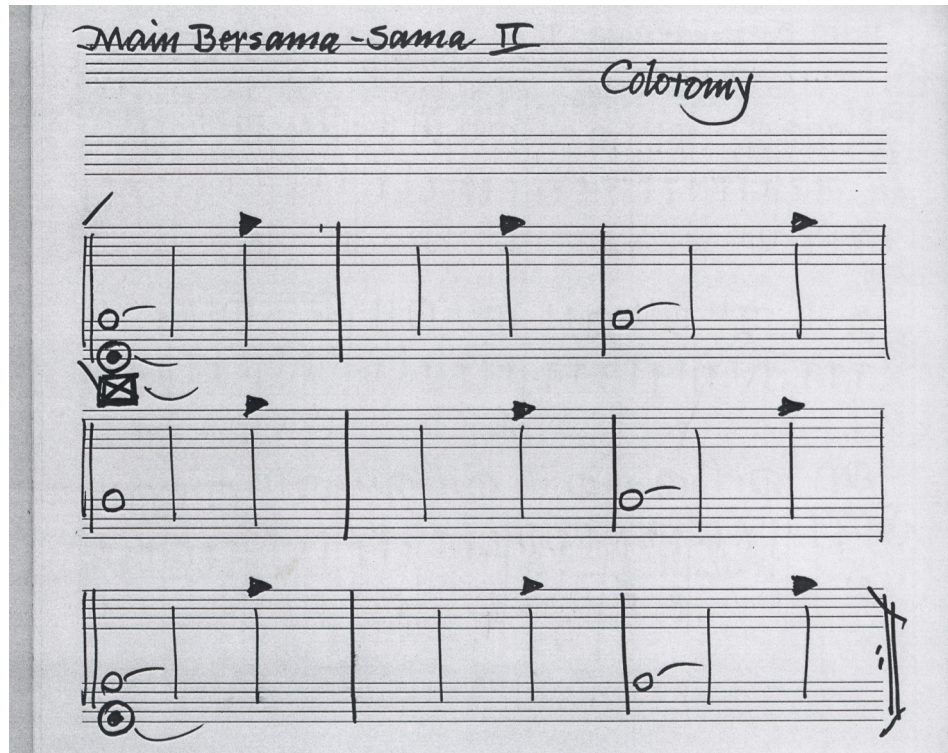
³ Lou Harrison, "Threnody for Carlos Chavez," in *Music for Gamelan with Western Instruments* (Aptos, Calif.: American Gamelan Institute by arrangement with Hermes Beard Press, 1992), 57. It should be noted that the one-page score written in cipher notation does not appear to be in Harrison's hand. It is thus unclear whether the labeling of segments A, B, and C was Harrison's convention or a later addition. Despite the uncertain origin of these labels, I have adopted them throughout my analysis of the piece, as they allow for a clear articulation of the gamelan's underlying melodic and formal structure.

section of the piece creates the 2 + 1 design that will become more and more evident throughout the analysis. Similarly, each section itself expresses the 2 + 1 architecture (i.e., AAB); and, this division is further maintained at the level of the *gongan*, discernible in the grouping of three-measure segments in the A and C *gongan*. For example, using ciphers, *gongan* A consists of the pitches 567 567 327.⁴

Harrison's keen attention to formal structure is perhaps most easily seen in his sketches for *Threnody for Carlos Chávez*. The composer's sketch of the colotomy outlines the organization of each twenty-seven-measure section, illustrating both the importance of groupings of three and Harrison's use of the recurring gong cycle, in addition to melodic construction, to provide the desired structural scheme (see Example 4.2). The twenty-seven measures are written as three lines of nine measures each, which are further divided into three groups of three measures each. The gong strokes, represented by note-heads, occur at the beginning of each nine-measure segment, delineating the fundamental structural units of the piece. Each *gongan* also receives an internal punctuation at the beginning of the third group of three measures, establishing the 2 + 1 architecture.

The 2 + 1 division is further expressed by Harrison's indication of a larger gong cycle that spans the entire twenty-seven-measure section. A circled solid note-head is written at the beginning of the first and third lines, which indicates the expected ratio of parts on a larger

⁴ Although other scholars have noted the layering of triple divisions (see Miller and Lieberman, *Composing a World*, 169; Bill Alves, "Kembangan in the Music of Lou Harrison," *Perspectives of New Music* 39, no. 2 (Summer 2001): 41-44), the gamelan's form has never been followed to this extent. Nor has it been previously suggested that Harrison adopted John Cage's square root form as an architectural foundation for the piece.



Example 4.2: Harrison's sketch of the colotomy, *Threnody for Carlos Chávez*.⁵ Used by permission.

scale.⁶ Finally, in looking at the smallest groupings of three-measure units, the 2 + 1 pattern appears in Harrison's writing of triangular flags at the front barline of the third measure of each group. This consistent delineation of the last third of each unit is articulated by the *bonang*, as shown in the Western score.⁷

⁵ Lou Harrison notebooks. MS 132 ser.2. Special Collections and Archives, University Library, University of California, Santa Cruz.

⁶ While this twenty-seven-measure gong cycle appears in Harrison's sketch of the colotomy, it is not evident in the published score apart from the melodic delineation of this scheme as voiced in the AAB and CCB patterning of nine-measure phrases played by the *jengglong*.

⁷ The written notes accompanying the score state that "the bonang starts a triplet leading to the kempul pitch . . ." (see Harrison, "Threnody for Carlos Chavez," 55). It seems that Harrison's mention of the *kempul* is perhaps a reference to the possibility of performing *Threnody* on a Central Javanese style gamelan, as opposed to the work's scoring for *gamelan degung*. The *jengglong* and *kempul* share similar roles in the *degung* and Central Javanese traditions, respectively. Harrison's written comment thus

The existence of such a clear outline of the form of *Threnody for Carlos Chávez* once again supports the assertion by Miller and Lieberman that Harrison believed a coherent structural framework was fundamental to the compositional process. For Harrison, a well-planned formal structure needed first to be established in order for him to find the expressive possibilities of a work. Miller and Lieberman relay the following from an interview with composer and conductor Robert Hughes:

Lou seldom starts out with a gut, sensual idea. Rather, he begins with the scaffolding, which is usually some kind of logically rational preconceived formula that turns loose, as he manipulates the materials, into wonderfully sensuous, forward-flowing music.... he begins composing by determining his structural basis.⁸

In constructing the scaffolding of this work, Harrison employed principles of gamelan but clearly sought ways to personalize his writing for the Indonesian ensemble. Most notably, he experimented with the rhythmic organization of *gatra*, basing all metric layers on three-beat patterns instead of the expected duple divisions created from standard four-note *gatra* patterns. This divergence from convention did not simply stem from a desire to be innovative but reflects Harrison's ability to find a connection between his diverse musical interests—in this case, the traditional music of Java and medieval rhythmic modes. Miller and Lieberman describe this connection as conveyed by Harrison himself:

Other gamelan works by Harrison are constructed along complex, overtly cross-cultural lines drawing from historical Western concepts, thus manifesting unique hybrid forms. In *Threnody for Carlos Chávez* (1978), for instance, Lou deliberately adapted the Medieval/Renaissance system of “prolations” to the gamelan. This metric organization, in which a given note type could contain either two (imperfect) or three (perfect) notes of the next faster time value,

suggests that he intended for both the *bonang* and *jengglong/kempul* to provide the structural emphasis he desired.

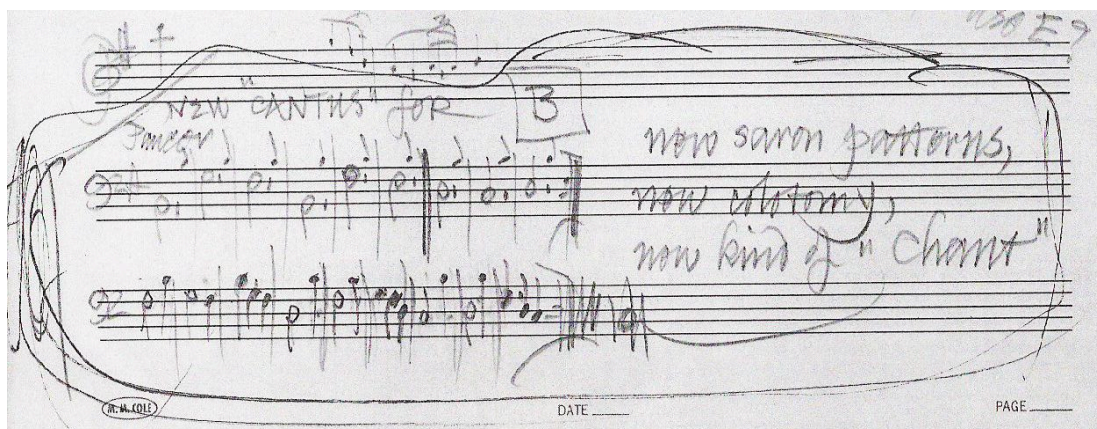
⁸ Miller and Lieberman, *Composing a World*, 206. The authors cite an interview with Hughes on January 14, 1996.

reminded him of the hierarchical but thoroughly duple structure of gamelan music. “I had never heard nor seen a [gamelan] piece in which every layer was triple. *Threnody for Carlos Chávez* is. The whole piece is divided into three, and each one of those units into three, and so on for eight layers.... I had discovered a conjunction between Javanese music and Medieval rhythmic modalities in the ‘imperfect’ system [that is, metric layers with entirely duple division], and so it occurred to me: why not try triple as well?” The further Lou ventured from traditional Javanese musical form, the more he had to write out his elaborating parts for the players who were now reading cipher notation to create decidedly unfamiliar styles.⁹

This conscious conflation of gamelan and Western medieval principles is perhaps another expression of Harrison’s conception of “playing together.” Thus, in Harrison’s mind, this idea may not have operated purely along geographical lines but crossed boundaries of time as well.

That Harrison mentally linked the gamelan’s structure to aspects of medieval music is further evidenced by his reference in the sketch material to the skeletal melody played by the *jengglong* as a cantus firmus (see Example 4.3). Having laid out the fundamental melodic motion of the opening section, Harrison created new melodic patterns to serve as the basis of the B and C sections of the piece, describing these melodies as a “new ‘cantus’ for B” and a “new kind of ‘chant’.” These words show him connecting the Indonesian concept of *balungan* with the Western medieval cantus firmus as a generator of musical form and melodic elaboration.

⁹ Miller and Lieberman, *Composing a World*, 169. The authors cite an interview with Harrison on March 8, 1994.



Example 4.3: Sketch material referring to the *jengglong*'s skeletal melody as a cantus firmus, *Threnody for Carlos Chávez*.¹⁰ Used by permission.

Harrison juxtaposes the gamelan's deliberate patterning and carefully constructed formal design with a long, sinuous melody that resists any kind of orderliness. The viola line, far from following the gamelan's consistent groupings built on patterns of three, appears purposefully to avoid a sense of clear patterning. The melody unfolds in a rhapsodic and fluid manner, suggesting that perhaps the listener is not meant to parse its structure. While the viola part is meant to sound unfettered, Harrison has actually constructed the melody with the same sort of careful calculation that he had lavished on the gamelan parts. This freedom from patterning places the viola in opposition to the strict organization of the gamelan.

The resultant discord between the two musical entities is, I believe, the precise relationship Harrison aimed to achieve. As revealed in an interview with Virginia Rathbun, the union of structure and freedom, of craft and spontaneity, intrigued Harrison and served as a focal point of his compositional process:

¹⁰ Lou Harrison notebooks. MS 132 ser.2. Special Collections and Archives, University Library, University of California, Santa Cruz. Harrison's reference to a "new 'cantus' for B" is short for "cantus firmus."

I have felt for a long time, and still do, that the real problem, the real interest in music is the conflict, the friction, the pulls and responses between what is coming along spontaneously as the material and the intellectual superimposition of the whole form, the shape of the entire movement. It's the friction between those two that produces interesting music. At least, I keep feeling that that's it. It's a balancing act, a juggling act between what bubbles up spontaneously and has continuity of its own and a general form which you know that you want to use. It's a constant juggle right up to the last joint between the final section and that other that comes out. And that's an interesting juggling; it makes for what I think is exciting music. I like the idea anyway; and for me that's part of it. There are very few, except small pieces, that I would write out spontaneously to the end. Mostly, I have decided what the general shape of the movement is going to be. This is the more precise form. I often think in terms of the overall form first. . . .¹¹

Thus for Harrison, the balance negotiated between the formal architecture of a work and the spontaneous unfurling of musical material is of prime importance. In *Threnody for Carlos Chávez*, this friction is created through the pairing of pattern (the gamelan) with complete resistance of pattern (the viola).

While the gamelan's tightly knit framework illustrates Harrison's desire to keep the gamelan coherently tied to form and structure, the viola's deliberately incoherent and improvisatory character reveals Harrison's strategy of composing a melody that consistently avoids such regular structural organization. The viola resists the pattern handed to it by the gamelan, freeing itself from the underlying regularity of phrase length by eliding phrases, leaving melodic cadences open-ended, or cadencing at moments that do not coincide with the gong phrase. The melody's elusive structure also disconnects it from familiar Western phrase patterns and expectations of melodic form. Thus in voicing its independence, the viola resists more than the gamelan's formal scheme. It also challenges recognized Western conventions of melody. As stated at the outset of this chapter, Harrison seems to present the viola almost as a kind of

¹¹ Virginia Rathbun, "Lou Harrison and His Music" (M.A. thesis, San Jose State University), 49.

“character” with agency. That this “Western” intruder in the gamelan ensemble is not behaving in familiar Western ways is perhaps another kind of Harrisonian “playing.”

Knitting melody with harmony has long been accepted as common practice in Western music. Students of music theory, for example, learn how to harmonize a tune. A common expectation is that a melody should be given harmonic support. Harrison, however, questions this view by letting the viola and gamelan simply float together. In *Threnody for Carlos Chávez* we do not find in the gamelan a cloudy hinting at harmonic underpinning, as Spiller has suggested in the case of *Main Bersama-sama*.¹² The gamelan’s stratified polyphony does not create a harmonic context for the viola melody. Rather, to borrow Leta Miller’s metaphor: the two “rub shoulders.”¹³

Harrison underscores this latent looseness between the viola and gamelan by first introducing the two operating together. In so doing, he both reminds us of the way melody and accompaniment “ought” to interact and makes it easier for us to notice the prevailing friction that exists between the gamelan’s organized structure and the viola’s rhapsodic melody. The ensuing divergence becomes all the more prominent when placed in relief against the conspicuous coordination voiced at the beginning of the work.

The piece thus begins with the viola sounding as if it is attuned to the gamelan’s melodic structure (Example 4.4). Its melodic outline parallels that of the gamelan, as the viola aligns its fundamental pitches with the skeletal pitches of the *balungan*. Pitch coincidence occurs between the viola and the *jengglong*, *panerus*, and *saron* parts on the downbeats of mm. 1-7. In other

¹² Spiller suggests that Harrison’s construction of the solo line in *Main Bersama-sama* implies a harmonic progression, supported by the gamelan’s “chordal accompaniment.” Refer to p. 66 for a full discussion of this topic.

¹³ Leta E. Miller, “Lou Harrison and the Aesthetics of Revision, Alteration, and Self-Borrowing,” *Twentieth-Century Music* 2, no. 1 (March 2005): 106.

words, the viola and gamelan seem to be voicing a single shared melody in a kind of “heterophony, with the Western instrument presenting an embellished and more rhythmically free version of the structural line (reminiscent of Harrison’s approach to combining the French horn and gamelan in *Main Bersama-sama*).

Example 4.4: Pitch coincidence between the viola and gamelan instruments on the downbeats of mm. 1-7, *Threnody for Carlos Chávez*

Yet, from the outset we see Harrison playing with conventional approaches for fitting a tune with its accompaniment. The parallel octaves throughout the first seven measures of the piece blatantly ignore Western principles of voice leading, demonstrating a deliberate expression of freedom from accepted rules of counterpoint. The viola’s unconstrained melodic unfolding further conveys this underlying looseness in its relationship with the gamelan as seen in the small details of its construction. As early as m. 2 the viola expresses its independence, emphasizing the pitch D and thus creating a strong dissonance with the *jengglong*’s structural pitch C

(Example 4.5). If we hear with Western ears the viola part against the “bass line”/*balungan* played by the *jengglong*, we may note harsh dissonances in mm. 2, 5, and 6 (ninths and sevenths). Such dissonances would never be sustained for so long in any style of Western tonal counterpoint. Thus, these details are another hint at the latent disagreement between the viola and gamelan parts.

Example 4.5: Contrapuntal relationship between viola and *jengglong*,
Threnody for Carlos Chávez (* strange “resolution” of 7th)

Looked at from an Indonesian perspective, on the other hand, the D in m. 2 in the viola line can be understood within the framework of conventional melodic elaboration: its appearance anticipates the next structural pitch of the *balungan*. The *saron* and *panerus* similarly play melodic figures that anticipate the arrival of D on the downbeat of m. 3 (see Example 4.4). While the *saron* and *panerus* consistently play elaborations of the *balungan* that are structurally organized to lead to the next fundamental melodic pitch, the viola vacillates between melodically anticipating the next pitch of the *balungan* (downbeats of mm. 3, 4, and 6) and purely arriving on the structural pitch in time with the *jengglong*’s melodic motion (downbeats of mm. 2, 5, and 7).

While the viola seems to line up with the gamelan's structure, the small details of melodic tension between the two forecast what will happen as the music develops.

The viola's opening phrase comes to a close with the arrival on G in m. 7. Harrison achieves a sense of melodic closure through both duration and pitch organization. He bestows the viola with its longest note-value of the entire piece at this moment, creating a temporary suspension of melodic motion. Harrison's melodic arrangement of pitches from the *pelog* scale, represented by the pitches B, C, D, F#, and G, also establishes a tonal organization in which the arrival on G sounds satisfactory, if not aurally inevitable, at first hearing. This cadence, however, is tempered by the underlying presence of a competing tonal center: B. As we will see, Harrison constructs the viola melody so that it is possible and necessary to hear it within the context of both G major and B phrygian.

The opening six measures of the viola melody establish a pitch hierarchy that favors the notes B, D, and G, as these pitches occur with great frequency, are played with relatively long durations, and typically fall at places of metric stress. This triadic emphasis is primarily achieved through frequent emphasis of the notes B and D, which, in conjunction with the pitch F#, allows for an alternate hearing of the phrase as suggestive of B-Phrygian. Examples 4.6a and 4.6b illustrate two possible ways of hearing the melody, with the pitches of the G major triad highlighted in Example 4.6a, and the pitches of the B minor triad in Example 4.6b. Beginning in m. 5, the melody shifts more strongly towards the G major triad, as the fifth of the chord, D, becomes particularly central to the viola's melody in mm. 5 and 6. The prominence of the dominant scale-degree in these two measures, reiterated through oscillation with its lower neighbor, sets the stage for the melody's expected move towards and cadence on G, which sounds and feels like tonic.



Example 4.6a: G Major? (mm. 1-10), *Threnody for Carlos Chávez*



Example 4.6b: B Phrygian? (mm. 1-10), *Threnody for Carlos Chávez*

Harrison places such a strong arrival point, however, in direct opposition to the moments of musical completion defined by the underlying gong cycle. The melodic cadence in m. 7 is strengthened by the use of pitch coincidence between the viola and several of the gamelan instruments, as mentioned above; but, this alignment fails to overcome the viola's quickly growing disregard for the gamelan's carefully patterned structure. Rather than coordinate its

phrase ending with the conclusion of the gong cycle, the viola asserts its own length of phrase, with the melody coming to a close in m. 7, three measures before the striking of the large gong at m. 10 (Example 4.7). The viola's clear phrase ending coincides with the internal gong tone, which marks the 2 + 1 subdivision of each gong phrase, and not the more structural gong tone signaling the completion of the gong phrase.

The musical score consists of two systems. The first system shows measures 1 through 7 for the Viola and measures 1 through 10 for the Jengglong. The Viola part (treble clef) has a phrase ending at measure 7. The Jengglong part (bass clef) has a phrase ending at measure 10. A bracket labeled 'Gong Cycle' spans from measure 1 to measure 10. The second system shows measures 8 through 10 for the Viola and measures 11 through 14 for the Jengglong. The Viola part continues its phrase, and the Jengglong part continues its phrase. The score is in 2/4 time with a key signature of one sharp (F#).

Example 4.7: Phrase misalignment between the viola and gong cycle, *Threnody for Carlos Chávez*

The misalignment of structural points—cadences in the viola part and gong tones in the gamelan—illustrates Harrison's stated interest in "the friction, the pulls and responses between what is coming along spontaneously as the material and the intellectual superimposition of the whole form, the shape of the entire movement."¹⁴ The music simultaneously comes to a pause in one melodic idea (that played by the viola) and continues to move forward in its presentation of another melody (the *balungan* played by the *jengglong*). What seemed like two related interpretations of the same melody at the beginning of the piece has become an expression of parallel, but independent, melodies. The two melodies float beside one another, converging and

¹⁴ Rathbun, "Lou Harrison and His Music," 49.

diverging according to the melodic whims of the viola. For instance, the melodic closure achieved with the arrival of G on the downbeat of m. 7 does not provide an entirely clear phrase structure. The G is sustained by the viola throughout the bar; and, coupled with the gamelan's unwavering melodic turning, this tie into the next measure creates an elision of phrases. The G thus sounds as both an ending and a beginning of melodic material. When the gamelan concludes its melodic cycle with the striking of the large gong on the downbeat of m. 10, the viola corresponds in pitch but finds itself in the middle of a new phrase rather than poised at a similarly significant moment. Significantly, the pitch alignment that occurs between the viola and gamelan on the gong stroke occurs on the pitch B, thereby emphasizing the competing pitch center of the piece.

Throughout *Threnody for Carlos Chávez* the viola serves as a foil to the expectations put in place by the gamelan's regular cyclic phrase structure and patterning. Following a rare rest in its sinuous line, the solo melodic instrument begins a new phrase on the second beat of m. 15, completely out of sync with the gong cycle (Example 4.8). Not only does the viola disregard the formal scheme articulated by the gamelan, but it also obscures the metric organization of the music. Given the brief moment of silence in its melody and the duration of its starting pitch, the clear phrase beginning sounds metrically strong, aurally signaling a downbeat rather than its actual weak-beat entrance. Throughout the piece our sense of meter is clouded by many of the details in the viola part. The gamelan projects a regular metric framework, while the metric structure of the viola part is fluid and ambiguous. Harrison's sense of play with the viola's freedom of expression thus extends to the listener's perception of time.

The image shows a musical score for two instruments: Viola and Jengglong. The score is divided into two systems. The first system covers measures 10 to 14, and the second system covers measures 15 to 19. In the first system, a bracket under the Jengglong staff is labeled 'Gong Cycle'. In the second system, a bracket under the Viola staff is labeled 'B'. The Viola part is written in treble clef with a key signature of one sharp (F#). The Jengglong part is written in bass clef with a key signature of one sharp (F#). The Viola part features a series of ascending leaps, while the Jengglong part features a series of descending leaps.

Example 4.8: Independence of the viola's phrase structure from the underlying gong cycle, mm. 10-19, *Threnody for Carlos Chávez*

The demarcation of larger musical sections displays a similar disjointedness between the viola and gamelan ensemble. As previously discussed, the work's architecture hinges on the ordering of *gongan* patterns (labeled A, B, and C) played by the *jengglong*. The *jengglong* changes its melodic pattern from A to B with the arrival of the primary gong tone at the end of the second statement of the A melody (shown in the Western score beginning in m. 19). At this point, both the *jengglong*'s pitches and rhythmic design transform to express a new, distinctive melodic structure guiding the gamelan. Yet, once again, the viola challenges one's hearing of the large-scale formal organization of the work. While section B, also labeled the "refrain" in the published score, conforms to and affirms the strict nine-measure segmentation of the gamelan's framework, an audible change in musical material occurs prior to this structural moment with the viola's alteration of its own idiom. The viola's essentially conjunct motion and flexible rhythm shifts to a series of ascending leaps that use the same rhythmic figure (see Example 4.9). This presentation of a new melodic idea, a new character, announces the shift from one section of the music to the next and begins on the third beat of m. 18. Part B thus sounds as if it starts with the

viola's preemptive melodic transformation, one beat before the gong tone and the gamelan's start of *gongan* B.

Example 4.9: Change in the *gongan* pattern and in the viola's melodic idiom, *Threnody for Carlos Chávez*

While the viola distracts us from readily perceiving the underlying form of the piece, its melody does not offer a clear formal structure of its own. The tune is rhapsodic and irregular enough that it seems as though we are not meant to parse it. In other words, given Harrison's desire for a spontaneous and improvisatory tune as a counter to regular patterning expressed by the gamelan, the way of hearing this melody is left deliberately open.

In the absence of regular phrase structure, other means for providing coherence seem to be missing as well. The viola's graceful line deliberately avoids clear, repeated patterns and discernible groupings. Motives, particularly Harrison's "melodicles" and "rhythmicles," are not to be found in the solo melody. Even the prevalent neighbor-note figures strike one as formulaic embellishing patterns, rather than "motives" in the usual sense. Pitch centrality, which plays a

role in the gamelan's structure through its organization around the gong tone, fails to hold the melody to a single focal point throughout the piece. Rather than perceiving a melody that is governed by a clear large-scale formal or tonal plan, it seems as though we are meant to follow the melody's unfolding note-for-note—"what bubbles up spontaneously and has continuity on its own"—constantly focusing on the present without concerns for the past or the future. Large-scale form is forsaken, or is momentarily forgotten, for the pleasure of immersing oneself in the beauty of a single melodic line.

Unattached to the gamelan's melodic sequences, the viola floats freely, sometimes with the gamelan and sometimes against it. In contrast to the prevalent pitch alignment between the Western instrument and gamelan in *Bubaran Robert* and *Main Bersama-sama*, *Threnody for Carlos Chávez* displays a greater independence between the Western and Eastern instruments. Table 4.1 illustrates the frequency with which the Western instrument deviates from the fundamental pitches of the *balungan*. The reader should recall our previous discussion of the first seven measures of the work in which Harrison creates a sense of cohesion between the viola and gamelan through their voicing of the same pitch class at structural points (represented by downbeats in the Western score). Table 4.1 reflects this initial pitch alignment between the *balungan* and viola melody but, more importantly, also shows the viola's increasing independence from the gamelan's highly structured form. Moments of pitch coincidence are notated by a quotation mark (") in the column of viola pitches, thus making it easier to see the points of deviation; and, *balungan* pitches falling on metric points other than downbeats have been indicated. This pitch flexibility reflects not only the viola's freedom from the gamelan's framework but also its freedom from one prevailing pitch center.

	<i>Balungan</i> pitch	Viola pitch
m. 1	B	“
m. 2	C	“
m. 3	D	“
m. 4	B	“
m. 5	C	“
m. 6	D	“
m. 7	G	“
m. 8	F#	G
m. 9	D	G
m. 10	B	“
m. 11	C	G
m. 12	D	G
m. 13	B	D
m. 14	C	F#
m. 15	D	“
m. 16	G	“
m. 17	F#	“
m. 18	D	“
m. 19	F#	“
m. 19, beat 3	B	F#
m. 20	G	C
m. 20, beat 3	F#	“
m. 21	B	F#
m. 21, beat 2	G	“
m. 21, beat 3	F#	“
m. 22	D	“
m. 22, beat 3	B	“
m. 23	F#	“
m. 23, beat 3	B	“
m. 24	G	“

	<i>Balungan</i> pitch	Viola pitch
m. 24, beat 2	F#	“
m. 24, beat 3	D	“
m. 25	C	“
m. 25, beat 3	B	D
m. 26	D	B
m. 26, beat 3	B	F#
m. 27	F#	B
m. 27, beat 2	D	B
m. 27, beat 3	C	D
m. 28	B	“
m. 28, beat 3	B	“
m. 29	G	B
m. 29, beat 3	B	“
m. 30	F#	B
m. 30, beat 3	B	“
m. 31	B	F#
m. 31, beat 3	B	F#
m. 32	G	F#
m. 32, beat 3	B	F#
m. 33	F#	D
m. 33, beat 3	B	“
m. 34	D	G
m. 34, beat 3	B	F#
m. 35	C	D
m. 35, beat 3	B	D
m. 36	D	“
m. 36, beat 3	B	G
m. 37	D	“
m. 37, beat 3	B	D

Table 4.1: Pitch deviation of the viola melody from the gamelan *balungan*, *Threnody* for Carlos Chávez

As mentioned above, the first seven measures of the viola's melody present both G and B as guiding pitch centers, with the phrase eventually leaning towards G and culminating with a strong arrival on "tonic" in m. 7. It becomes tempting to continue to read the melody as centered around G in light of this first melodic cadence point; my analysis will follow this path, only to show the ambiguity that lies at the heart of the melody's construction.

Measures 8 through 14 continue to emphasize the pitch G (see Example 4.10). Tied from the previous measure, this central note lingers in one's ear as the melody begins to weave its way once again. The G is quickly rearticulated on the second big beat of m. 8 and is then given prominence through rhythmic duration and its metric placement on the downbeats of mm. 9 and 11. The shape of the melody in m. 11 further strengthens this pitch center by accentuating the "tonic-dominant" relationship. The melodic line highlights D through repetition and its rhythmic suspension into beat 3 before moving to G, which is also held into a metrically strong beat. From this point the phrase steadily descends in pitch, ending on a sustained low D, which can be heard as the dominant and leaves the end of the phrase "open," an effect that is reinforced by the arrival on low D, near the bottom of the viola's range.



Example 4.10: Viola melody, mm. 8-14, *Threnody for Carlos Chávez*

G continues to sound like the central pitch of the viola's melody in mm. 15 and 16. In addition to starting the new phrase, the note becomes a kind of center of gravity to which the melody continuously returns (see Example 4.11). In m. 15 the quicker-moving D and F# lead the tune back to G twice. Measure 16 closely resembles the melodic figure played in m. 11, again placing stress on the “tonic” and “dominant.” A difference between the rhythmic constructions in both measures, however, results in the final G in m. 16 serving as a pick-up to the ensuing downbeat; the subsequent F# assumes greater prominence for the next few measures. The new metric weight placed on the F# alters the melody's progression, as the parallel construction between mm. 11-14 and mm. 16-18 finds different resting points for the two segments—D in m. 14 and F# in m. 18. From this point of view, the metrically accented F# in m. 17 propelled the shift in pitch focus from G to F#, the latter becoming a pedal point in the viola's new melodic character in Part B.



Example 4.11: Viola melody, mm. 15-20, *Threnody for Carlos Chávez*

The new prominence of F# in the passage projects the underlying tonal ambiguity we observed earlier in the viola part. While a G major triad serves as a principal organizing element in Part A of the music, Harrison softens the strong sense of G major with simultaneous implications of a B minor triad. The long, drawn-out B's in mm. 1, 3, 8, 10, and 12, support this

competing tonality, as their voicing is perhaps better understood as the root of a B minor triad than as the third of a G major triad. Similarly, the D's played in the opening section function ambiguously as chord tones in both triads.

For example, the previous reading of m. 11 as bringing out the G-D "tonic-dominant" complex can be re-examined in light of Harrison's juxtaposition of G major and B minor triads. The emphasis placed on D in this measure not only illuminates the pitch's tonal function as the "dominant" of the G pitch center, but also invites the listener to hear this pitch as part of the B minor triad outlined in the surrounding measures. The pitch B dominates m. 10 and again serves as a focal point in the melody in m. 12. The viola's descent to B in m. 12 articulates a B minor triad, with the melody then returning to the third of the chord at the end of the measure.

Continuing in this vein, the viola's momentary rest on F# during its descent to D in mm. 13-14 suggests that further reinterpretation of the melody's organization is in order. Given the weightiness of the B in m. 12, one could argue that the sustained F# in m. 13 aurally relates to this second central pitch, imparting dominant function, more strongly than it connects to G as its leading tone. The phrase's concluding pitch, D, originally interpreted as the fifth of the G major triad, similarly operates within the B minor sonority. Yet, although the melody's descent through mm. 12-14 highlights the pitches B, F#, and D, the following phrase's beginning on G in m. 15 sounds like a natural extension of the melody's unfolding. The ability of the D to function within both tonalities allows one's ear to easily move from B minor to G major. This flexibility in hearing the melody's structure was, in my view, precisely Harrison's intent. In creating tonal ambiguity, Harrison imbued the music with continuous melodic interest and thus found a strategy for sustaining a length of melody without losing the listener's attention.

The flexible character of the melody's construction continues to express itself in the shift to F# as the melody's focal pitch with the start of Part B. The metric emphasis placed on F# in m. 17 highlights this pitch as part of the B minor triad outlined in the measure and serves as the upper bookend to the melody's octave descent to F# in m. 18. For the following three measures, the viola continually reiterates this pitch, first as a pedal point in a series of melodic leaps and then through neighbor-note motion expressed in the piece's hallmark triplet meanderings (see Example 4.12). Through sheer repetition, Harrison causes the listener to hear this pitch as newly important in the melody's structure.



Example 4.12: Viola melody in Part B (mm. 19-28), *Threnody for Carlos Chávez*

When viewed from the larger perspective of the overall shape and movement of the viola line throughout Part B, the new prominence of F# serves as a “dominant” in relation to the melody's final cadence on the pitch B. The melody outlines a B minor triad in mm. 22-23. Following an internal cadence on F# in m. 23, the melody progresses to a phrase ending on C, which sounds tonally inconclusive. Measures 25-27 round out the section, sounding like a coda in the sudden use of longer note values and the repetition of a six-note pattern (G-F#-D-F#-G-B) that, even with rhythmic variation, presents B as the pitch of great import. The sequential

downbeats on B carry this central pitch into the opening of Part A (in the melody's repeat of the first twenty-seven measures) and Part C (in the melody's progression to the final third of the piece).

Maintaining its emphasis on B, the viola changes its character once again with the start of Part C (see Example 4.13). The melody becomes more static, as the viola sustains a single pitch throughout most of the measure before making a small flourish only to return to the primary note. The melody's tonal ambiguity, beautifully crafted in Part A, temporarily ceases, as the solo line seems focused on B and then F#. ¹⁵ In m. 60 the viola breaks free of the B-F# pitch axis, ascending through a B minor triad before arriving on G in the succeeding measure.



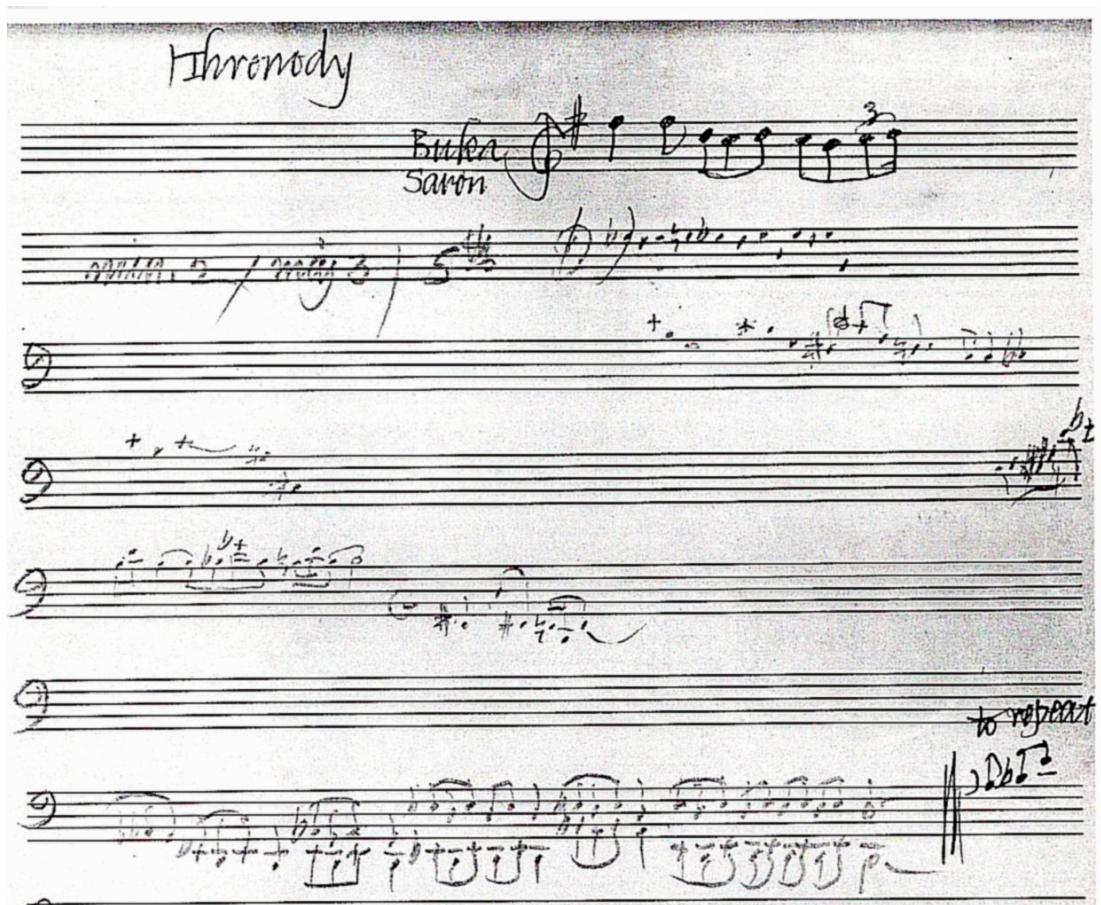
Example 4.13: Viola melody in Part C, *Threnody for Carlos Chávez*

At this point the G major triad becomes part of the tonal fabric again. Measures 61 and 62 highlight the pitches G and D rhythmically. Echoing the melodic figure played in m. 15, m. 61 emphasizes G by returning to this note through ascending motion of the pitches D and F#, which serve to strengthen the tonal center of G major. The subsequent measure continues the

¹⁵ The gamelan's structural melody reinforces this single pitch center through the *jengglong*'s playing of a *pancer* on B.

melody's organization around a G major triad, with the viola voicing the "fifth" of the triad on each large beat and outlining the entire triad in the primary pitches of the rhythmic subdivision of the second beat. The melody's descent over mm. 61-62 ends on D on the downbeat of both the first and second endings, with Harrison creating another moment of tonal uncertainty. The D sounds as an implied dominant of G, but can also be heard as the third of a B minor triad when considered in relation to the viola's ensuing F#'s and B's in m. 63. Indeed, pitch focus seems to shift from G to B as the melody proceeds to either the protracted B's of the repeat of Part C or the reiterated F#'s at the start of Part B.

As shown by the above analysis, this flexibility in the way of hearing the melody's structure seems to have been Harrison's aim in all aspects of the melody's construction. From the viola's unclear and irregular phrase structure to the absence of melodic and rhythmic motives as compositional germs to a play of pitch centricity, Harrison created a rhapsodic line that resists clear patterning and a single reading of its structure. Interestingly, it appears that Harrison also briefly flirted with using his own technique of interval control as a possible way of crafting the melody. An existing sketch shows his written selection of the intervals of a minor 2nd, major 3rd, and 5th as the imposed constraints on the horizontal unfolding of the melody, as well as several short melodic fragments that conform to this interval restriction imperfectly (see Example 4.14). In the end, Harrison abandoned interval control in favor of the flexible and ambiguous structure of the viola melody we know today.



Example 4.14: Sketch suggesting Harrison's attempt to construct the viola melody according to constraints of interval control, *Threnody for Carlos Chávez*.¹⁶ Used by permission.

The rhapsodic, unconstrained quality of the viola melody is also, perhaps, a reflection of Harrison's decision to rename the piece a threnody in honor of his friend and fellow composer Carlos Chávez. A threnody is a lamentation or funeral song, a genre that suggests a free-flowing expression of mourning for the loss of a loved one. The reader will note that I have spoken about the viola almost as if the instrument were a character, and, in a way, it is possible to view the viola as representing the voice of the person who is singing the lament. One would not expect a

¹⁶ Lou Harrison notebooks. MS 132 ser.2. Special Collections and Archives, University Library, University of California, Santa Cruz.

lamentation to be ordered and controlled, and the viola's free and unrestrained lyrical impulse serves as a beautiful expression of someone in mourning. In this light, the gamelan can be seen as representing the community surrounding that person, offering structure and stability.

Surprisingly, where attempts at hearing and understanding the viola melody from a Western musical perspective break down, it is the gamelan's construction that is best explained from a Western, and not Indonesian, point of view. The gamelan's strict phrasing and precise patterning is dependent on a Western reading of the music. Specifically, the patterns detected from note groupings reflect a Western sensibility with respect to rhythm and meter.

The AAB pattern evident at multiple levels of structure reveals a front-weighted, and hence Western, perspective on rhythm as it pertains to pitch selection. For example, the skeletal melody played by the *jengglong* in the first *gongan* (refer to Example 4.1) clearly presents this predicament of rhythmic perception and the role it plays in determining whether or not the AAB structure is aurally decipherable.¹⁷ Heard from a Western, front-weighted perspective of rhythmic organization, the melody begins with the striking of the gong and ends just prior to the next gong tone, playing the following pitches: 567 567 327. The repeated first segment (567) and contrasting final unit (327) plainly fit the overriding pattern of the piece. In contrast, an Indonesian, or end-weighted perception of rhythm suggests an alternate hearing of the *jengglong*'s slow-moving melody. The melodic pitches move toward the gong tone or tone of metric stress, making the final pitch (unheard in front-weighted reading of the *gongan*) the most important pitch structurally. The melody becomes 675 673 275, and the pattern becomes lost.

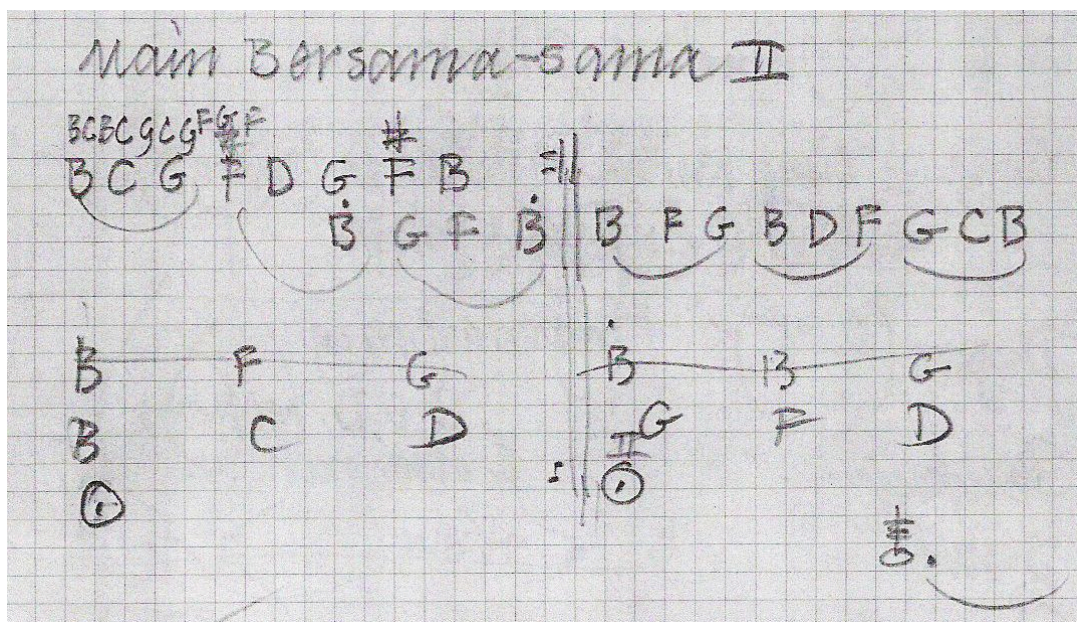
¹⁷ This dichotomy of front-weighted vs. end-weighted rhythmic structure and the problem it presents in analyzing Harrison's music for gamelan is skillfully addressed by Henry Spiller in "Lou Harrison's Music for Western Instruments and Gamelan: Even More Western than It Sounds." *Asian Music* 40, no. 1 (Winter/Spring 2009), 31-52. See Chapter 3: *Main Bersama-sama* for a more detailed consideration of this topic.

In a similar fashion, the B and C *gongan* patterns (refer to Example 4.1) express the AAB design only when viewed from a Western perspective. The distinct rhythmic profile of the B *gongan* operates within the rhythmically front-weighted framework, with the initial half-note/quarter-note pattern repeated in the second bar before changing to a measure of three successive quarter-notes. The C *gongan*, in which every measure has the same rhythm (half-plus quarter-note), displays the same melodic patterning as the skeletal melody of *gongan* A. Disregarding the *pancer* (interspersed tone) on pitch 5, the melody can be notated as 532 532 767 when begun with the gong tone that concludes the previous gamelan phrase. The 2+1 scheme thus necessarily entails a Western parsing of the music. Significantly, Harrison's hearing of the melody as moving forward from the gong tone is evident in his sketch of the colotomy (see Example 4.2) and in another sketch detailing his organization of pitches for the first *gongan* pattern, shown in Example 4.15. Here we see Harrison outlining the pitches B C D G F D (written as the lowest line of pitch names in the reproduced sketch). Somewhat faintly, a repeat sign is placed between the two groups of three notes, thus establishing the AAB pattern of the skeletal melody: BCD BCD GF(#)D. Harrison marks the gong strokes (indicated by a circled period) and places them at the beginning, rather than the end, of the melodic segments.

In a provocative analysis of Harrison's adaptation of fundamental principles of gamelan music, Bill Alves examines the relationship between various layers of musical structure.¹⁸ Asserting that Harrison's interest in melodic construction finds parallels with the Javanese musical process of *kembangan*,¹⁹ Alves draws a connection between medium- and large-scale

¹⁸ Alves, "Kembangan in the Music of Lou Harrison," 29-56.

¹⁹ Providing a literal translation of *kembangan* as "flowering," Alves defines the term in musical practice as "the intricate melodic figurations that characterize Javanese gamelan music.... [K]embangan describes the ways in which a melody can "bloom" from a skeletal basis to elaborate filigrees that fit together, fractal-like, at different levels of density. The resulting complex melodic, tonal, and metrical hierarchy is



Example 4.15: Sketch material illustrating pitch selection for the skeletal structure of Part A, *Threnody for Carlos Chávez*.²⁰ Used by permission.

representations of AAB structure in *Threnody* and surface design. He identifies two primary melodicles played by the *saron*, the gamelan instrument with the highest rhythmic density, and describes the contour of one melodicle (melodicle “a”), consisting of a repeated tone and a step down, as another reflection of the AAB pattern.²¹ A third melodicle appears in his analysis of the melody played by the *kempul* (*jengglong*).

Alves’s interest in understanding Harrison’s melodic structures by labeling melodicles and their permutations serves the added purpose of then observing these melodicles at abstracted levels of structure. For example, taking only the third, and rhythmically most prominent, note of

at the heart of the structure of Javanese gamelan music, a structure which thus strongly appealed to the melodicist Harrison.” [Alves, “Kembangan in the Music of Lou Harrison,” 30.

²⁰ Lou Harrison notebooks. MS 132 ser.2. Special Collections and Archives, University Library, University of California, Santa Cruz.

²¹ Alves, “Kembangan in the Music of Lou Harrison,” 41.

each *gatra* played by the *saron* creates a melody in which one of the primary melodicles can still be identified. Alves similarly abstracts pillar pitches from the *jengglong* melody, revealing the presence of melodicle “a” when taking every third note (shown in Alves’s Example 19) and the AAB structure when considering just the gong tones (shown in Alves’s Example 20).

Reproduced in Example 4.16, both schemas begin with the gong tone played at the end of the *buka* and dispense with the final gong tone as an isolated event. Thus Alves’s interest in highlighting the AAB pattern at both motivic and structural levels leads him also to display his, and Harrison’s, Western sensibility with respect to rhythm and meter.

EXAMPLE 19: A FURTHER ABSTRACTION OF
THRENODY FOR CARLOS CHÁVEZ

EXAMPLE 20: GONG TONES OF THRENODY FOR CARLOS CHÁVEZ

Example 4.16: Alves, Examples 19 and 20.
Showing presence of melodicle “a” at abstracted layers
of the work, *Threnody for Carlos Chávez*

Alves’s analysis presents an interesting paradox: in order to understand Harrison’s expression of *kembangan* in *Threnody for Carlos Chávez*, the presence of this melodic flowering of a skeletal idea at various levels of metrical structure necessitates a Western reading of that very metrical structure. Whether or not Harrison was concerned with the paradoxical conflicts between East and West in these compositions, we cannot transcend a superficial assertion of the

music's "hybridity" without the sort of close analysis I have offered above. Moreover, we risk misunderstanding the complex nature of Harrison's music if we are content to think of "hybrid" works as a sort of hazy, or haphazard blending of Western and Eastern elements. The ingrained conflicts present in the *Threnody* reveal that his pieces for gamelan and Western instruments can, and should, be understood as a sophisticated play of structure and freedom.

CHAPTER 5

BUBARAN ROBERT, 1981

As we have seen in the previous chapters of analysis, Harrison's interest in melodic expressivity was not confined to his writing for the solo Western instruments, but inhered in his construction of the gamelan parts as well. That melody served as a generating force for his construction of both entities, East and West, did not mean, however, that a Western listener would understand the gamelan in melodic terms. In both *Main Bersama-sama* and *Threnody for Carlos Chávez*, the solo Western melodic lines seem to fulfill Harrison's notion of writing memorable "tunes"; the gamelan *balungan*, on the other hand, may not be heard as similarly tuneful by Western audiences. Perhaps realizing this gap in melodic understanding, Harrison constructed his 1981 revision of *Bubaran Robert* in such a way that it challenges listeners to confront their ideas of what a melody is.

Specifically, Harrison challenges listeners to hear the gamelan as an equal partner in the musical fabric and not merely as an accompaniment to the Western instrumental line. I am not suggesting that the gamelan serves an accompanimental role in either *Main Bersama-sama* or *Threnody for Carlos Chávez*. What I am proposing, rather, is that Harrison's structuring of the interaction between the gamelan and Western instrument in his revised version of *Bubaran Robert* invites, even demands that the listener to engage more fully with the gamelan on its own terms. This engagement is achieved through the alternation of passages played by gamelan alone and passages played by gamelan and piccolo trumpet, and through the gamelan's maintenance of a single melodic structure in both solo and combined passages. Significantly, Harrison's own

melodic interest in the gamelan increased with his addition of a melody for piccolo trumpet, as he tightened the gamelan's melodic structure in anticipation of this substantial alteration to the work.

In revisiting a pre-composed work,¹ Harrison found himself reinvestigating the melodic potential of a traditional form. As detailed in chapter 3, in traditional gamelan music, short forms such as the *bubaran* are governed by the colotomic structure of the gong cycle. The *kenong*, *kempul*, *kempyang*, and *ketuk* mark internal subdivisions of the gong cycle, and the specific interaction of these instruments establishes the formal structure of the music. Harrison's interest in understanding formal aspects of Javanese gamelan music is evident in *Bubaran Robert*, with its titled acknowledgement of employing *bubaran* form, as well as its indication of scale (*slendro*) and *pathet* (*manyura*). Yet, just as Harrison explored the world of gamelan, keeping an eye towards tradition, he also pursued his own compositional strategies. His 1981 revision of the work is yet another instance of his application of individual compositional strategies to melodic construction. In this revised version of *Bubaran Robert*, form is determined not only by Harrison's employment of a traditional colotomic structure, but also through melodic

¹ Harrison's reuse and revision of earlier compositional writings is discussed by Leta Miller and Fredric Lieberman in *Composing a World: Lou Harrison, Musical Wayfarer* (see pp. 231-233). See also Leta E. Miller, "Lou Harrison and the Aesthetics of Revision, Alteration, and Self-Borrowing," *Twentieth-Century Music* 2, no. 1 (March 2005): 79-107. It is interesting to note that, in composing his works for gamelan and Western instruments, Harrison returned to his first attempt at writing for traditional gamelan, *Music for Kai Hudan Mas*, on two occasions. *Bubaran Robert*, the third piece in the collection, retained its original title with the addition of the piccolo trumpet part, and it is this revised version of the piece that is best known today. *A Cornish Lancaran* for saxophone and gamelan follows the same pattern of adopting a previously written gamelan part as the backdrop for a prominent solo line played by the Western instrument. In this case, Harrison used a section of the first piece in *Music for Kyai Hudan Mas*, *Gending Samuel* (the section marked "Lancaran style"), as the basis for his later work. (See Lou Harrison, "Music for Kyai Hudan Mas," *Soundings* 10 (Summer 1976): n.p.) The anthology *Gending-Gending California* compiled by Harrison and Trish Neilson contains a slightly altered version of the *lancaran*, titled *Lancaran Samuel* in this collection. Additionally, Harrison's *Double Concerto for Violin, Cello, and Gamelan* was based on two previously published gamelan works, *Gending Hephaestus* and *Ladrang Epikuros*, which can be found in the anthology *Gending-Gending California*.

patterning. The changes he makes to the gamelan reveal a tightening of structure. Harrison cannot let go of his compositional practice of building form through melody, and he overlays a melodic scheme on top of the *bubaran* structure.

This layering of two formal designs occurs within the gamelan's *balungan*, as the particular configuration of *ketuk*, *kempul*, and *kenong* iterations provides a backdrop against which Harrison displays his melodic idea. The colotomic instruments create a regularity of pulse and phrase structure, but Harrison establishes a larger pattern of repetition through melodic motion that spans two gong phrases, thereby dividing the entire *balungan* into two equal halves. The *balungan* is reproduced in Example 1 below, and I have indicated the two halves through the use of a dotted line. Harrison writes nearly identical melodic material for each half of the *balungan*, highlighted by motion to tone 3 at the end of the first gong phrase and to tone 6 at the end of the second gong phrase comprising each half of the musical material. The two halves, in fact, follow the same melodic sequence of *gatra*, differing only by the omission of the third *gatra* (3 5 • 5) and subsequent addition of a new final *gatra* (325356) in the second half. The location of the omitted third *gatra* is marked with an asterisk in Example 5.1. In this binary construction, Harrison interprets melody as a significant, even form-defining, feature of gamelan.

5 6 $\frac{\bullet}{xx}$ 6	5 6 3 5	3 5 $\frac{\bullet}{xx}$ 5	3 5 2 ③
2 1 2 3	2 $\frac{\bullet}{xx}$ 2 3	2 1 2 3	2 3 5 ⑥

5 6 $\frac{\bullet}{xx}$ 6	5 6 3 5 *	3 5 2 3	2 1 2 ③
2 $\frac{\bullet}{xx}$ 2 3	2 1 2 3	2 3 5 6	3 <u>2535</u> ⑥

Example 5.1: Two halves of the *balungan*, *Bubaran Robert*

The near symmetry of the two halves of the *balungan* did not take form until Harrison's reworking of the melodic material five years after the piece's initial 1976 publication. The original version of *Bubaran Robert*, while structurally organized around gong tones 3 and 6, displays a through-composed approach to developing the gamelan's principal melody, with the fourth line expressing independence from what came before it. Example 5.2 presents the *balungan* of both published versions of the work. While the concluding gong tone on pitch 6 is preserved, Harrison changed essentially every other pitch played in this final gong phrase in his 1981 revision.

A comparison of the two versions reveals a tightening of formal structure and a pronounced affirmation of the two structural gong tones. The 1976 version of *Bubaran Robert* highlights the pitches 2 2 5 6 as the metrically prominent *kenong* pitches of the fourth line. The revised version, in comparison, emphasizes the two pillar pitches upon which the entire melody hangs. I have indicated these pitches with arrows in Example 5.2. Harrison's revision not only refocused the *balungan*'s central pitch structure, but it showed newfound concern for creating a cohesive form by means of melodic design. The fourth line became stripped of its previous melodic freedom, as Harrison continued the repeated sequence of *gatra* already established in the third *gongan*. The resultant binary structure thus replaced the freer form of the original version of the piece. Furthermore, this alteration shows Harrison's concern with maintaining careful control of form and other parameters at the same time as the music suggests a kind of fluent, even intuitive melodicism.

$\begin{array}{cccc} \text{5 } \underset{\text{xx}}{\dot{6}} \text{ 6} & 5 \text{ 6 } 3 \text{ 5} & 3 \text{ 5 } \underset{\text{xx}}{\dot{5}} & 3 \text{ 5 } 2 \text{ ③} \\ 2 \text{ 1 } 2 \text{ 3} & 2 \underset{\text{xx}}{\dot{2}} \text{ 3} & 2 \text{ 1 } 2 \text{ 3} & 2 \text{ 3 } 5 \text{ ⑥} \\ 5 \text{ 6 } \underset{\text{xx}}{\dot{6}} & 5 \text{ 6 } 3 \text{ 5} & 3 \text{ 5 } 2 \text{ 3} & 2 \text{ 1 } 2 \text{ ③} \\ \boxed{2 \text{ 1 } 3 \text{ 2} \quad 5 \text{ 5 } 3 \text{ 2} \quad 5 \text{ 5 } 3 \text{ 5} \quad 6 \text{ 6 } 5 \text{ ⑥}} \end{array}$	$\begin{array}{cccc} \text{5 } \underset{\text{xx}}{\dot{6}} \text{ 6} & 5 \text{ 6 } 3 \text{ 5} & 3 \text{ 5 } \underset{\text{xx}}{\dot{5}} & 3 \text{ 5 } 2 \text{ ③} \\ 2 \text{ 1 } 2 \text{ 3} & 2 \underset{\text{xx}}{\dot{2}} \text{ 3} & 2 \text{ 1 } 2 \text{ 3} & 2 \text{ 3 } 5 \text{ ⑥} \\ 5 \text{ 6 } \underset{\text{xx}}{\dot{6}} & 5 \text{ 6 } 3 \text{ 5} & 3 \text{ 5 } 2 \text{ 3} & 2 \text{ 1 } 2 \text{ ③} \\ \boxed{2 \underset{\text{xx}}{\dot{2}} \text{ 3} \quad 2 \text{ 1 } 2 \text{ 3} \quad 2 \text{ 3 } 5 \text{ 6} \quad 3 \text{ 2 } 5 \text{ 3 } 5 \text{ ⑥}} \end{array}$
$\begin{array}{cccc} \uparrow & \uparrow & \uparrow & \uparrow \end{array}$	$\begin{array}{cccc} \uparrow & \uparrow & \uparrow & \uparrow \end{array}$
<u>1976</u>	<u>1981</u>

Example 5.2: Changes to the melodic contour of the fourth *gongan*, *Bubaran Robert*

An analysis of the revised *balungan*'s undulating melody suggests that Harrison organized these core melodic pitches not as long, floating phrases, but as short musical segments to be manipulated and reordered. Through various transformations of small melodic ideas, melody could be created from limited musical material. As noted in previous chapters, Harrison frequently challenged himself to create melodies or entire pieces from small melodic (and rhythmic) cells throughout his compositional career and referred to these musical fragments as “melodicles” (and “rhythmicles”). Having employed melodicles in his construction of elaborating parts in *Main Bersama-sama* (detailed in chapter 4), Harrison returned to this familiar technique in his second look at *Bubaran Robert*.

In *Bubaran Robert*, each *gatra* (grouping of four beats) stands alone as a small melodic cell and can be described by its internal shape, which is determined by the interval size and direction between two adjacent pitches. Conforming to a handful of such contour patterns, the *gatra* provide an overall unity to the *balungan*'s structure. The first line presents two melodicles in alternation, labeled A and B (see Example 5.3). Melodicle A expresses a contour shape of rising an interval of one scale degree and then maintaining that pitch level for the final two beats of the *gatra* (+1, 0, 0). Melodicle B rises one scale degree, descends two scale degrees, and then

ascends one scale degree to return to its starting pitch (+1, -2, +1).² The third and fourth *gatra* of the line repeat melodicles A and B, sequenced down a scale step. The second line introduces two new melodicles, labeled C and D. Melodicle C follows a descent of one scale degree and then changes direction to ascend two subsequent scale steps (-1, +1, +1). Melodicle D follows a steady scalar ascent (+1, +1, +1). In addition to transpositions of melodicles A and B, the retrograde inversion of melodicle A appears in the second and fourth lines. The final *gatra* presents a more elaborate version of melodicle D.

$\overbrace{5\ 6\ \cdot\ 6}^a$ xx	$\overbrace{5\ 6\ 3\ 5}^b$	$\overbrace{3\ 5\ \cdot\ 5}^a$ xx	$\overbrace{3\ 5\ 2\ ③}^b$
$\overbrace{2\ 1\ 2\ 3}^c$	$\overbrace{2\ \cdot\ 2\ 3}^{a(ri)}$ xx	$\overbrace{2\ 1\ 2\ 3}^c$	$\overbrace{2\ 3\ 5\ ⑥}^d$
$\overbrace{5\ 6\ \cdot\ 6}^a$ xx	$\overbrace{5\ 6\ 3\ 5}^b$	$\overbrace{3\ 5\ 2\ 3}^b$	$\overbrace{2\ 1\ 2\ ③}^c$
$\overbrace{2\ \cdot\ 2\ 3}^{a(ri)}$ xx	$\overbrace{2\ 1\ 2\ 3}^c$	$\overbrace{2\ 3\ 5\ 6}^d$	$\overbrace{3\ 2\ 5\ 3\ 5\ ⑥}^{d'}$

Example 5.3: Pattern of gamelan *gatra*, *Bubaran Robert*

This labeling of *gatra* according to their melodic contour strongly illustrates the large repetition of melodic material mentioned above and Harrison's overall tightening of form. The two halves of the *balungan* follow the same sequence of *gatra*, with the exception of the omitted third *gatra* (melodicle A) in the second half and the added final *gatra*. In analyzing the ways in which Harrison's music incorporates structural principles of gamelan music, Bill Alves points to

² The *slendro* scale uses pitches 1, 2, 3, 5 and 6. Thus, interval size is calculated using only these scale degrees, making the distance from tone 3 to tone 5 one scale degree. Similarly, motion from tone 6 to tone 3 is measured as a descent of two scale degrees.

the deletion of the third *gatra* of *Bubaran Robert* as a metric shifting of the following melodicles to earlier time points. Notably, the new melodicle introduced at the start of the second line (melodicle C in my labeling) now falls on the gong, a metrically strong position, at the end of the third line. “This shifting of *gatra* from metrically weak to strong parts of the formal structure is a favorite trick of Javanese composers as well...”,³ notes Alves, citing Jody Diamond’s comparison of *Bubaran Robert* to the traditional piece *Bubaran Rediguntur*.⁴

While Alves and Diamond see this metric shifting as an element of compositional play in both Harrison’s writing and in traditional Javanese gamelan music, Harrison’s realignment of *gatra* in the second half of *Bubaran Robert* suggests another kind of structural “game.” The *balungan*’s binary construction carries over to the piccolo trumpet part, added in 1981. As we will see more clearly below, the trumpet plays two highly similar eight-measure phrases corresponding to the two halves of the gamelan, thus highlighting the parallelism already created. Unlike the *balungan* melody, the trumpet melody maintains its skeletal eight-bar structure in its second phrase and does not eliminate material in order to follow the gamelan’s forward leap. As a result, the gamelan and trumpet play “out-of-phase” for much of the second half of the repeated cycle of music. Harrison eases this tension by loosely tying the two parts together through pitch coincidence, establishing octave alignment on the fourth beat of the thirteenth through sixteenth *gatra* (on the downbeats of mm. 13-16 in the Western score). Example 5.4 illustrates Harrison’s use of pitch alignment in the final *gongan* in Western score form, with the pitches of note (and of greatest metric stress) encircled.

³ Bill Alves, “Kembangan in the Music of Lou Harrison,” *Perspectives of New Music* 39:2 (Summer 2001), 41.

⁴ Jody Diamond, “In the Beginning Was the Melody: The Gamelan Music of Lou Harrison,” *A Lou Harrison Reader*, ed. Peter Garland (Santa Fe: Soundings Press, 1987), 101.



Example 5.4: Pitch coincidence between the *balungan* and solo piccolo trumpet line in the final *gongan*, *Bubaran Robert*

The “misalignment” of the two melodies creates an interesting juxtaposition of the trumpet and gamelan, as Harrison writes two seemingly independent melodies that operate according to separate principles yet somehow make sense together. Harrison seems to be making a humorous, if hidden, comment on how two musical traditions can be disconnected yet perfectly in harmony with one another. This hidden “puzzle” is yet another example of the compositional games that lie beneath the beguiling “naturalness” of the musical surface in Harrison’s music.

Because of his blending of two highly different melodies, Harrison had to find a way for the gamelan and piccolo trumpet to “play together.” His strategy seems to have been periodic pitch coincidence at moments key to the unfolding of this traditional Javanese form.⁵ In revisiting his 1976 version of *Bubaran Robert*, Harrison chose to maintain the hierarchical structures of pitch and regularity of phrase length originally established in the work. The paired 16-beat *gongan* lead to the gong tones on pitches 3 and 6, and this underlying melodic motion extends to the contour of the trumpet’s melody.

⁵ This use of pitch coincidence differs from the prevalence of pitch alignment between the gamelan and French horn in *Main Bersama-sama*, which was the result of their sharing a single melodic outline. Given the piccolo trumpet’s distinct melody from the *balungan*, points of pitch coincidence suggest a more concerted effort on Harrison’s part to establish moments of connection between the gamelan and Western instrument.

In writing the solo trumpet line, Harrison pairs the Western instrument with the *balungan*, which he has notated in Western staff notation (see Example 5.5). The *slendro* scale is represented by the following Western pitch approximations: 1=D^b, 2=E^b, 3=F, 5=A^b, 6=B^b. The trumpet comes into alignment with the gamelan's fundamental melody at the gong strokes. These points of coincidence are marked by elongated circles in Example 5.5.⁶ Harrison's transnotation of the *balungan* from ciphers to pitches on a staff presents the metrically stressed endpoints of metric units as downbeats. In other words, the gamelan's arrival at its first gong stroke (on tone 3 or F) occurs on the downbeat of m. 5; similarly, the second *gongan* concludes on the downbeat of m. 9, the third on the downbeat of m. 13, and the fourth on the downbeat of m. 1. The trumpet melody follows suit in its emphasis on the pitches F (3) and B^b (6) at these structural moments, as Harrison essentially pins the trumpet and gamelan parts together through pitch alignment. Not only does the trumpet simultaneously voice the gong tones, but the extended rhythmic duration of these pitches lends weight to the final tone of the second, third, and fourth *gongan* (downbeats of mm. 9, 13, and 1).

⁶ Because the Western notation of the *balungan* can only be an approximation of the actual pitches, such notation provides a kind of blueprint for the piccolo trumpet player, indicating moments of pitch coincidence with the gamelan. It is the responsibility of the trumpet player to make pitch adjustments according to the particular tuning of a set of gamelan instruments. A notated B-flat in the trumpet part thus indicates that the note to be played may somewhat resemble a B-flat in Western tuning but that the performer should listen and match pitch to the gamelan. It is also important to note that, in building gamelan sets for San Jose State University and Mills College, Harrison and his partner Bill Colvig tuned the instruments using pure intervals. This tuning has implications for other vertical sonorities in the piece.

Example 5.5: Structural pitch coincidence between the trumpet and *balungan*, *Bubaran Robert*

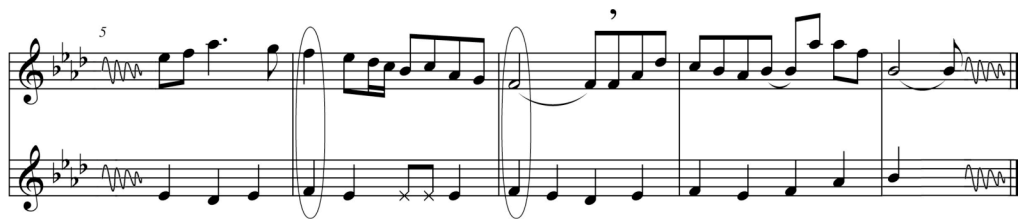
In addition to aligning with the four gong tones, the trumpet melody and gamelan *balungan* align at more localized moments of rhythmic prominence, namely on the fourth beat of *gatra*. In the second *gongan*, Harrison places emphasis on pitch 3 by reserving this pitch for the final (and strongest) tone of the first, second, and third *gatra*. These points are indicated with an asterisk in Example 5.6a. The trumpet coincides in pitch with the fourth beat of both the first and second *gatra* in the line (see Example 5.6b). The fourth *gongan* similarly highlights pitch 3 as the metrically stressed final beat of the first and second *gatra*, with the trumpet also

articulating pitch 3 (F in Western staff notation) at these moments. In anticipation of the gong tone to be sounded at the end of the fourth line, both the gamelan and trumpet play pitch 6 on the last beat of the third *gatra*. Operating in tandem, pitch coincidence and metric emphasis show the fourth *gongan* to highlight the two primary tones of the piece, 3 and 6, as the fourth beat of each *gatra* creates the pattern of 3366 (refer to Example 5.4).

*
*
*

 2 1 2 3 2 $\frac{\cdot}{xx}$ 2 3 2 1 2 3 2 3 5 ⑥

Example 5.6a: Emphasis on pitch 3 in second *gongan*, *Bubaran Robert*



Example 5.6b: Localized pitch alignment between piccolo trumpet and *balungan* in second *gongan*, *Bubaran Robert*

This melodic reduction of the second and fourth *gongan* to the pitches 3336 and 3366, respectively, also underscores the parallelism of the two lines. Harrison notes in the published score that the final ending of the piece may be taken at the conclusion of either the second or fourth line. As we have seen, these are the two places where the gong corresponds with the structural pitch 6. Allowing performers a certain freedom in deciding where to end the piece, this indication corresponds with the binary division of the *balungan*. More importantly, Harrison's performance indication confirms a melodic scheme that spans two gong phrases and corresponds to his belief that melody can provide structure on a large scale. The gamelan thus

simultaneously expresses both formal ideas: binary form in its melodic organization and *bubaran* form in its colotomy or gong phrasing.

In addition to the modification of the last line of the *balungan*, Harrison's 1981 revision of *Bubaran Robert* also incorporates a change in the work's introductory lead-in, or *buka*. In both versions, the *buka* reflects the melody of the final gong phrase, tying together the outer bookends of the gamelan's structural design. The *buka* from the 1976 version duplicates nearly the entire fourth line, omitting only the first two pitches played in the last *gongan* (see Example 5.7). Harrison repeats the opening motion from tone 3 to tone 2, with a suspended beat placed between the two pairs. This unusual grouping of five beats, breaking from the traditional four-beat *gatra*, suggests that Harrison intended for the listener to focus on this downward motion. Separated by a beat of rest, the descending pairs serve as a motive that reasserts itself in the rhythmically weighted second half of the following *gatra*. Harrison does not maintain this two-note descent throughout the *buka*, but counterbalances this descending contour with the predominantly rising motion that follows. Having accustomed the listener to expect a return of this motive, Harrison proceeds to invert the paired neighbor tones. The third and fourth *gatra* conclude with a stepwise ascent, from tone 3 to 5 in the third grouping, and from 5 to 6 in the fourth. (The reader should recall that, in the *slendro* scale—represented by the ciphers 1, 2, 3, 5, and 6—3 and 5 are adjacent scale degrees, and thus are stepwise in the same sense as 5 and 6.) Harrison further emphasizes this upward motion by connecting the final two *gatra* through their melodic contours, the fourth *gatra* simply a rising transposition of the melodic outline of the third.

Buka

3 2 • 3 2 5 5 3 2 5 5 3 5 6 6 5 ⑥

4th *gongan*

2 1 3 2 5 5 3 2 5 5 3 5 6 6 5 ⑥

Example 5.7: Comparison of *buka* and fourth *gongan* of *Bubaran Robert* 1976

In Harrison's revision, the *buka* continues to parallel the final gong phrase (see Example 5.8). Rather than begin with the first *gatra* of the fourth line, however, the new *buka* takes the second half of the second *gatra* as its starting point. Harrison begins with a repeated two-note ascent from pitch 2 to pitch 3, the very opposite of the opening of the original *buka*. Notably, the repeated fragment occurs without a pause between utterances and moves from a position of metric strength to one of weakness. This rhythmic progression de-emphasizes the motive, as the repeated upward gesture becomes part of the larger melodic ascent from tone 2 to 6 that spans the second *gatra* and follows the natural rhythmic flow of the music. The final *gatra* reiterates this upward movement, adding rhythmic interest to the introduction's overall ascending motion to the gong tone.

buka

• • 2 3 2 3 5 6 3 2535 ⑥

4th *gongan*

2 $\frac{\cdot}{xx}$ 2 3 2 1 2 3 2 3 5 6 3 2535 ⑥

Example 5.8: Comparison of *buka* and fourth *gongan* of *Bubaran Robert* 1981

Harrison's other revision to *Bubaran Robert*, the addition of the solo piccolo trumpet melody, shows his growing interest in experimenting with novel ways of combining gamelan and Western instruments. Having produced two works that unite these musical resources (*Main Bersama-sama* for French horn and gamelan and *Threnody for Carlos Chávez* for viola and gamelan, both dated 1978), Harrison now returned to a previously written gamelan piece with the challenge of adding a solo Western line. As I have shown, Harrison allowed himself to make significant changes in the gamelan part. His addition of a melody to be played on piccolo trumpet supplied a further, and equally significant, transformation of the work, and thus posed the puzzle of fashioning a coherent work that blended East and West.

According to the comprehensive catalog of works compiled by Miller and Lieberman, Harrison's revision of the gamelan was completed in February 1981, two months before the addition of the trumpet melody (dated April 28, 1981).⁷ The binary structure created by the gamelan revision thus set the framework for the trumpet's formal scheme. As mentioned above, the trumpet's melodic line coincides with structurally significant pitches of the *balungan*, notably the gong punctuations on pitches 3 and 6. Written as two parallel phrases, the trumpet melody seems to be organized around the gamelan's pairing of sixteen-beat *gongan*, coordinating its length of phrase with each half of the *balungan*.

Both phrases, labeled A and B in the piccolo trumpet part, express a similar melodic design while sounding fluid and somewhat unpredictable (see Example 5.9). In contrast to the gamelan's balanced structure of gong phrases (represented by two four-measure phrases in Western notation), the trumpet melody comprises odd "turns of phrase" and rhythms that do not

⁷ Miller and Lieberman, *Composing a World*, 304. The 1981 published version and a copy of the score written in one of Harrison's personal notebooks bear the February 1981 date. A sketch of the trumpet part confirms the revision date of April 28 noted by Miller and Lieberman. (Lou Harrison notebooks. MS 132 ser.2. Special Collections and Archives, University Library, University of California, Santa Cruz.)

The image displays a musical score for two instruments: Piccolo trumpet and Balungan. The score is divided into two main sections, A and B. Section A consists of the first two systems of music, while Section B consists of the last two systems. Each system contains a staff for the Piccolo trumpet and a staff for the Balungan. The Piccolo trumpet part is written in a treble clef with a key signature of three flats (B-flat, E-flat, A-flat). The Balungan part is written in a treble clef with a key signature of three flats. The Piccolo trumpet part features various melodic lines, including a phrase labeled 'A' in the first system and a phrase labeled 'B' in the third system. The Balungan part provides a rhythmic accompaniment, often using 'x' marks to indicate specific rhythmic patterns. The score concludes with a double bar line and a final note in the Piccolo trumpet staff.

Example 5.9: Comparison of the two trumpet phrases, labeled A and B, *Bubaran Robert*

necessarily flow in familiar “Western” ways. Harrison seems to organize phrase A as two unequal subphrases, delineated by his insertion of a breath mark in m. 7 and thus consisting of a six-measure unit with a two-measure tag ending. Yet throughout the eight-measure melody, Harrison creates curious groupings that are suggestive of internal cadences. For example, mm. 1-4 follow a general descent from F to B^b, and the rhythmic weight imparted to the B^b leads the listener to question whether the phrase has ended. Similarly, the second half of m. 4 through the downbeat of m. 6 could potentially be heard as a melodic unit, suggesting another internal

cadence. As we have seen Harrison do in his writing of the solo Western melodies in *Main Bersama-sama* and *Threnody for Carlos Chávez*, he builds a tune that is endlessly fascinating and offers something intriguing the more one listens to his turns of phrase.

The trumpet's second phrase, a modified version of the melody presented in phrase A, is more animated in its expression, giving voice to a greater number of rhythmically charged sixteenth-notes and placing emphasis on higher pitches in the trumpet's range. While A^b5 is the highest pitch sounded by the trumpet in the first phrase, the second phrase extends the melody upwards to B^b. The trumpet articulates this upper-register B^b5 only twice. The first instance occurs on the final beat of m. 10, and the note's rhythmic tie into the downbeat of m. 11 creates a strong dissonance (from a Western musical perspective) with the gamelan *balungan*. In light of the pronounced occurrence of intervals of a fifth or unison/octave sounding between the *balungan* and trumpet line on downbeats (beat 4s, or *kenong* strokes, in cipher notation) throughout *Bubaran Robert*, this dissonance gives added emphasis to the trumpet's new highest pitch. The second appearance of a high B^b occurs in m. 16, in this instance drawing momentum from the repeated motion from F to A^b in the previous bar. The staccato F on beat 3 of m. 15 acts as a springboard to the syncopated A^b, and the subsequent F, also marked staccato, propels the melody even higher to the B^b in the following measure.

This variation in the trumpet's melodic profile is not the only alteration made to the second phrase. Harrison also varies the melody's rhythmic flow, making a small but significant change to the rhythmic profile of the second phrase. The opening of the phrase mirrors that of phrase A; the first five notes are identical in pitch and rhythm. The difference in metric placement between the two phrase beginnings, however, creates an altered rhythmic reading of the second phrase. Phrase A articulates its opening two sixteenth-notes as pick-ups leading into

the more heavily weighted dotted-quarter F placed on a metrically strong downbeat. While phrase B repeats this rhythmic figure, the sixteenth-note pickups occur one beat earlier, leading to the metrically weak fourth beat of the measure (beat three of the gamelan *gatra* groupings). Similar to the melodic disjointedness that occurs between the trumpet and gamelan with the gamelan's omission of its third *gatra* in the second half of the *balungan*, phrase B begins "out-of-phase" rhythmically. The trumpet's early entrance signals its moment of independence from both the model provided by phrase A and the underlying structure established by the gamelan. Yet this out-of-phase quality is mediated by Harrison's reliance on the gamelan principle of pitch coincidence, bringing the trumpet and gamelan together at moments of structural importance.

While pitch coordination knits the gamelan and trumpet melodies together, the brilliant timbre and tessitura of the trumpet places the Western instrument in the foreground of the musical texture. The gamelan, originally the sole melodic focal point of the piece, becomes secondary, as this new melody takes center stage. The trumpet part, labeled "Trumpet Procession" in the score, not only adds a new voice on top of the gamelan's stratified polyphony, but re-characterizes the work. As Miller and Lieberman note, for many years *Bubaran Robert* served as the graduation processional music at Mills College.⁸

The processional quality of the work stems from the music's steady rhythm and repetitive melody, as the piece continually repeats its sixteen-measure form, never changing musical character or introducing new material. Because the structure of the trumpet line is rather enigmatic, and its relationship to the gamelan is also complex, many listeners, I believe, would welcome the chance to rehear the two parts together multiple times. The cyclicity and repetitiveness of the music allows for a flexibility of length of time needed for a ceremonial

⁸ Miller and Lieberman, *Composing a World*, 68. Jody Diamond also states this use of *Bubaran Robert*. See Jody Diamond, "In the Beginning was the Melody," 103, n. 3.

occasion, making it well suited for any length of procession. Finally, the stately sound of the trumpet and gamelan drum (*kendang*)⁹ provides an air of grandeur to the music that is suggestive of the trumpet's historical use in military bands and in the court trumpet corps.¹⁰

For many westerners, piccolo trumpet immediately calls to mind Baroque style, including famous pieces such as J.S. Bach's first Brandenburg Concerto, or the "Trumpet Voluntary" heard so often at weddings and other ceremonial occasions. It is difficult to imagine that Harrison was not intending to allude to that style, and perhaps even to characteristic "turns of phrase." Handel was among those whose melodic gifts Harrison particularly admired.¹¹ That said, this tune sounds more "Harrisonian" than typically "Baroque," though it may have the kind of *Fortspinnung* quality that prevents it from falling neatly into the four-bar phrases one associates with the later Classical style.

Harrison's inclusion of the trumpet, while reinforcing the gamelan's binary structure with its parallel eight-measure phrases, creates a new aural perception of the work's form. Although constructed as two complementary halves, the music is performed as a sequence of interludes in which the trumpet enters intermittently within the gamelan's continuous churning. In a written note accompanying the trumpet part, Harrison indicates that the trumpet is to enter the musical texture only after the gamelan has finished playing the first pair of gong phrases. The trumpet

⁹ Harrison typically did not notate the drum parts for his gamelan works but allowed the performers to realize these parts according to the specific patterns that accompany traditional forms.

¹⁰ Margaret Sarkissian and Edward H. Tarr, "Trumpet," in *Grove Music Online* (accessed Feb. 15, 2010).

¹¹ Asked in an interview who were his principal influences in Western music, Harrison responded: "George Frederic Handel. I used to get up and put on the *Water Music* before anything else because of the melodic aspect. I always marveled at it. And I formulated as fact that his melodies are at once arbitrary and inevitable. At any one point they could go in any direction. But the one that he chose is the obviously inevitable one. It's a curious sensation that keeps one alive to the melody." (See Richard Kostelanetz, "A Conversation in Eleven-Minus-One Parts, with Lou Harrison about Music/Theatre," *Musical Quarterly* 76, no. 3 (Fall 1991): 398-399.)

then begins with its second phrase, labeled B in the Western score, proceeds to play the A phrase, and then rests while the gamelan continues with its cycling of the *balungan* and elaborating parts (refer to Example 5.9). Following the purely gamelan interlude, the trumpet reenters, now beginning with the A phrase and bridging into the B phrase before resting once again. As Harrison states in the published part, the trumpet is to maintain this ordering of phrases and *tacet* sections throughout the performance of the piece.

In creating this dynamic between the gamelan and solo Western instrument, Harrison establishes a larger formal structure that is based on his intermittent foregrounding of the trumpet melody. Unlike *Threnody for Carlos Chávez*, which presents a free-flowing, continuous solo melody that floats above the gamelan, and *Main Bersama-sama*, which articulates a single solo line shared by the Western instrument and a solo Indonesian instrument that remains prominent above the gamelan polyphony throughout much of the work, *Bubaran Robert* expresses a shifting musical texture that highlights the alternation of sections of music that include the trumpet with those that do not.¹² This fluctuation in instrumental forces becomes a central feature of one's hearing of the work, as it emphasizes the added color of the trumpet.

By the same token, the trumpet's absence results in a foregrounding of the gamelan not achieved in Harrison's earlier hybrid works. In writing passages for gamelan alone, Harrison challenges the listener to hear the gamelan as melodic in its own right. By juxtaposing two melodies, the piccolo trumpet line and the gamelan *balungan*, Harrison asks us to consider the nature of melody itself, and also how these two melodies interact ("play together").

¹² It should be noted that *Main Bersama-sama* also includes a twice-recurring section that involves only the gamelan. This section is non-traditional in its homophonic texture, and it is this distinction from the expected stratified polyphony of the work's larger section in the gamelan itself that marks the two as texturally different.

Harrison's deep interest in understanding the structural workings of traditional gamelan music did not, as we have seen, result in an abandonment of melodic invention. Rather, as is consistently the case for Harrison, certain "rules of order" are established—in this case, the colotomic structure of the gamelan—within which he creates music that is melodically driven. The *bubaran* form functioned as a template into which he could "pour" his melodic creativity. As Miller and Lieberman state, Harrison was "most attracted to the shortest and least complex forms of traditional gamelan music because their comparatively fast tempi permit foregrounding of the melody in a way that is uncharacteristic of much gamelan music in larger forms."¹³ The devotion he showed to shaping the *balungan* provides evidence for their claim. More importantly, Harrison's interest in melodic expressivity led him to challenge Western-trained ears (perhaps his own included) to hear the gamelan as more than accompaniment. By allowing the gamelan to speak in turn with the trumpet, Harrison constructed *Bubaran Robert* as a meeting of two worlds not fully realized by his two previous works for gamelan and Western instruments.

¹³ Miller and Lieberman, *Composing a World*, 165-66.

CHAPTER 6

CONCLUSION

In a 1992 interview with a staff writer for the *Philadelphia Inquirer*, Lou Harrison relayed an early experience that revealed to him the unique nature of melody:

Years ago, I lived for a while in some railroad flats in San Francisco. Another fellow who lived there was deaf. I could communicate with him by gestures, and I would play music for him, and he could get some sense of the rhythm and dynamics of a piece by feeling the vibrations. But the one thing I could never get across to him was what melody is. And I realized that no one who cannot hear can ever understand what a melody is. I . . . concluded that melody is something special.¹

This anecdote shows that at an early age Harrison was forced to confront the nature of melody and to ponder its elusive qualities. Having concluded that melody is “something special,” he could not accept his contemporaries’ assessment that tonal/modal melodies offered little in the way of compositional complexity or aural interest. Undeterred by the critical judgments of “serious 20th-century composers” on the East Coast, Harrison experimented with melody throughout his career, but perhaps never more revealingly than in his pieces for gamelan and Western instruments.

These pieces, if studied and listened to closely, show ingenious attempts to “define” melody and to demonstrate its value as a tool for negotiating the delicate balance between planned structure and creative inspiration. Far from being the product of intuition, these compositions reveal a fertile mind committed to establishing a work’s architectural design

¹ Frank Wilson, “Home Entertainment: His Is a Rare Classical Tune,” *Philadelphia Inquirer*, May 14, 1992.

through methods that lie outside of customary tonal/harmonic constructs. As Peter Yates contended as early as 1959, Harrison “has been, since Ives, the most fundamentally original of American composers, the one best able to compete in creative ability with the young, radical postwar theorists of Europe.”²

How is it, then, that Harrison’s inventiveness has gone unrecognized by many of his peers and the concert-going public? (Not that listeners have not delighted in his music; rather their appreciation has been somewhat limited to surface features.) It seems there are two possible answers to this question. One answer is simply that we have not been looking for invention; the second is that Harrison did not intend for us to find it.

Our inclination to overlook melody as a source of Harrison’s compositional innovation no doubt reveals more about our own musical biases and limitations than Harrison’s aesthetic preferences.³ We apparently do not know how to hear with Harrison’s keenness, nor, it seems, have we tried to learn. Our tendency to accept his music at face value, to take pleasure in its freshness of melodic expression without questioning the underlying principles of organization, has resulted in our failure to discover the intricacies of his creative voice. Some scholars, notably Miller, Lieberman, Alves, and Spiller, have started us along the path of understanding Harrison’s engagement with melody and other musical features that intrigued him. But, as my

² Peter Yates, introductory essay to *Some Twentieth Century American Composers: A Selective Bibliography*, by John Edmunds and Gordon Boelzner, Vol. 1 (New York: The New York Public Library, 1959), 21.

³ It should be noted that Leta Miller and Fredric Lieberman have taken us a far way in understanding Harrison’s attraction to and use of melody, outlined in Chapter 1 (see pp.6, 12-15). Their discussion of Harrison’s use of compositional controls, some of them melodic in nature (i.e., interval control and the use of melodics), has been particularly revealing. See Leta Miller and Fredric Lieberman, *Composing a World: Lou Harrison, Musical Wayfarer* (Urbana, Ill.: University of Illinois Press, 2004), 206-209; Leta Miller and Fredric Lieberman, *Lou Harrison* (Urbana, Ill.: University of Illinois Press, 2006), 14, 108-111. Similarly, Bill Alves’ melodic analysis of Harrison’s writing for gamelan has informed us of his approach to creating melody in another musical tradition. See Bill Alves, “Kembangan in the Music of Lou Harrison,” *Perspectives of New Music* 39, no. 2 (Summer 2001): 29-56.

analyses show, there is much more to be learned by engaging in close readings of individual pieces.

Still, the possibility that Harrison did not mean for us to discover the underlying processes of his compositions is suggested by his own comments about his aesthetic aims. In stressing his concern with beauty, as in the following quotation, he may have been seeking to deflect our attention from his craftsmanship:

I am quite opposed to Frank Lloyd Wright's remark that just as modern architecture has done away with unnecessary cornice adornment of buildings, so has modern music done away with melody. On the contrary, I feel that essentially and necessarily, music is an adventure in time awareness and that the singlest, most simple route to this beauty is through melody; for herein is form, shape, "recollection," surprise, architecture, and the "take-home-pay" of memorable tune.⁴

We must counter Harrison's frequent assertions that he was simply writing tunes by appealing to the sense of play he clearly brought to the compositional process. This compositional play is not a freedom from rules but, as related by Miller and Lieberman and presented more closely in my analyses, a game of creating expressive works in which the underlying technical constraints are not easily identified. Acknowledging the delight he found in disguising his working methods, Harrison stated, "It's part of the game of writing music. I don't want to be taking the listener on a guided tour of my compositional technique."⁵ The game is a private one, intended only for himself.

What makes Harrison's music so different from that of his contemporaries is its deliberate avoidance of a belabored aesthetic. He never sacrifices the surface charm of a piece for technical concerns. Because his technical methods are concealed by an elegant, and at times

⁴ Lou Harrison, "Music for the Modern Dance," *American Composers Alliance Bulletin* 2, no. 3 (October: 1952): 11-12.

⁵ Quoted in Miller and Lieberman, *Composing a World*, 220.

playful, aesthetic, scholars and critics have tended to focus on the readily observable features of his music. Thus, Alan Rich notes,

In the best known of his music [Harrison] comes up with an ingenious kind of transcultural music. . . . In [some] pieces he will start with the ravishing orchestrations of Indonesian gamelan music, its array of bright percussion . . . and patterned rhythms. . . . Then he'll set against this the sinuous shapes of Western melody—real song tunes of the sort nobody else writes anymore, at least not as well.⁶

But there is more to Harrison's best-known music than novel combinations of instruments and stylistic juxtapositions.

As stated at the outset of this study, Harrison's pieces for gamelan and Western instruments have understandably attracted more attention than his other works, but even they have so far been only partially understood. To my mind, the reason for this partial understanding stems from scholars' desire to hold up these compositions as cross-cultural icons (or, conversely, to dismiss them as the work of a free-spirited Californian dabbling with Asian sources). By reading these works through a pre-selected lens of East-West "hybridity," scholars have effectively stepped away from confronting the pieces directly, satisfying themselves with broad characterizations; or they have been so intent on uncovering features that can be defined as "Indonesian" or "Western" that they have been blind to what I perceive as more intriguing and telling structures and relationships present in these works.

Although I originally set out to detail aspects of Harrison's cross-cultural mixing, I found, as my research proceeded, that I needed to widen my perspective and engage with the music on its own terms. Instead of pursuing a preconceived notion of what hybridity means (or ought to mean), I have discovered what it came, over time, to mean for Harrison. The four works I have presented—*Bubaran Robert* 1976, *Main Bersama-sama*, *Threnody for Carlos*

⁶ Alan Rich, "Land of the Giants," *California* (August 1987): 42.

Chávez, and *Bubaran Robert* 1981—show us that Harrison’s “playing together” of East and West is more instructively a playing together of diverse conceptions of melody.

Each analysis causes us to rethink how we understand the fundamental building blocks of the composition in question (and perhaps of music in general). By superimposing upon gamelan a solo voice that cannot help but seem curiously foreign to it, Harrison spotlights melody in a way we cannot ignore. But, as my analyses have shown, the tune never just floats in a sensuous, gamelan “haze.” The complex interrelationship of all the parts forces us to reconsider each time what the structural functions of each component actually turn out to be.

Harrison seems to conceive of the gamelan parts as a kind of framework with certain fixed properties. Each work employs a structural gong cycle, articulates a central organizing melody (the *balungan*), and expresses the principle of pitch coincidence. But the interaction of the solo melodic instrument and the gamelan differs from one piece to the next. What these pieces show is the scope of Harrison’s diverse strategies for combining melodies played by instruments from two different traditions. In addition, more than simply showing the range of his melodic experimentation, these four works reveal the gradual development of Harrison’s personal definition of hybridity.

Starting with *Bubaran Robert* 1976, we see Harrison learning a new form of music, and specifically a new kind of melody and process of melodic elaboration, in this traditional piece. His first attempt to combine gamelan and Western instruments, *Main Bersama-sama* (1978), displays the two in cooperation. Harrison followed this experiment of “playing together” with a near opposite approach in *Threnody for Carlos Chávez* (1978), in which the Western instrument’s rhapsodic melody resists the gamelan. Only with *Bubaran Robert* 1981 did he allow the two forces to truly play together, structuring the work in such a way that the gamelan

and Western instrument seamlessly flow between moments of independence and collaboration, all the while asking to be heard both on their own terms and in relation to each other.

Offering far more than merely memorable tunes played by the Western instruments, these pieces show the lasting effect of Harrison's early experience of trying to express what melody is to his deaf roommate. Whether in a long-breathed tune or a skeletal melody spanning a *gongan* or melodicles organized as four-note *gatra*, he is describing melody to us. As my previous chapters suggest, Harrison's experiments with gamelan suggest that we know less about melody than we might think. In other words, much like his roommate we are deaf, as it were, to what melody can be and what it can do. These pieces reveal the rich ways in which Harrison thought about the function of melody; and in doing so, they ask us to comprehend melody as he heard it, as something intricately crafted and ever new. Harrison's experience with his roommate caused him to think continually about the nature and function of melody, down to its roots. His music, heard in all its fullness, invites us to do the same.

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APPENDIX A:
GLOSSARY OF TERMS

Rather than attempt to formulate my own succinct and precise definitions for terms mentioned in the text, I have decided to draw upon the work of scholars well-established in the field of gamelan study. I have listed below the works consulted. The author of each definition is indicated by his or her initials appearing in parenthesis at the end of each entry. The absence of initials indicates that I have provided the definition for that term.

Lindsay, Jennifer. *Javanese Gamelan: Traditional Orchestra of Indonesia*, 2d ed. New York: Oxford University Press, 1992.

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balungan:	Skeletal melody of a gamelan composition, more correctly called <i>balunganing gendhing</i> (NS)
bonang:	In Central Javanese gamelan, a generic term for a family of horizontal gong chimes with ten to fourteen pots arranged in two rows; in Sundanese <i>degung</i> , fourteen-pot horizontal gong chime arranged in one row on a V- or U-shaped frame (HS)
bubaran:	Central Javanese form consisting of 16-beat <i>gongan</i> , with each gong phrase divided into four <i>kenongan</i>
buka:	Solo introductory phrase of a gamelan piece (NS)
cèngkok:	Central Javanese term for melodic pattern, melody, melodic style, or process of melodic movement (HS)

colotomy:	A musical foundation or timeline in which regular time periods are delineated by punctuating sounds; also called colotomic form (HS)
gambang:	Javanese, Cirebonese, or Sundanese xylophone, usually with about eighteen to twenty-one wooden keys laid over a trough resonator (HS)
gamelan degung:	A uniquely Sundanese gamelan ensemble in the <i>pelog degung</i> tuning system
garap:	Lit. “to make, to do.” (1) Any particular instrumental technique. (2) Performance practice in general. (3) The elaborating parts (<i>ricikan garap</i>). (4) The musician’s activity of interpreting a <i>gendhing</i> by performing one of the elaborating parts. (MP)
gatra:	A melodic phrase of four <i>balungan</i> beats (MP)
gembyang:	The musical interval formed by two tones separated by five scale degrees; acoustically comparable to an octave (MP)
gendhing:	(1) The most general term for fixed-meter gamelan compositions. (2) The largest group of compositional forms, larger than <i>ladrang</i> and containing at least two movements, each of which can be repeated (MP)
gentorak:	A bell-tree used in Balinese gamelan
gong ageng:	In Central Javanese gamelan or Balinese <i>gong kebyar</i> ensemble, an extremely large hanging gong (HS)
gong suwukan:	In Central Javanese gamelan, a hanging gong (smaller than <i>gong ageng</i> ; also called <i>gong siyem</i> or <i>siyem</i> (HS)
gongan:	A musical passage occupying the time interval between two <i>gong</i> -strokes (MP)
jengglong:	In Sundanese <i>degung</i> , gong chime with six low-pitched gongs, suspended vertically or arranged horizontally (HS)
kembangan:	From <i>kembang/sekar</i> (“flower”); certain kinds of patterns for melodic instruments (esp. <i>bonang</i>) and drum (JL)
kempul:	In Central Javanese gamelan, a gong chime consisting of several small hanging gongs (HS)

kendang:	Javanese, Balinese, Cirebonese, and Sundanese two-headed barrel-shaped drums (in Sundanese, more typically spelled <i>gendang</i> ; in Javanese, spelled <i>kendhang</i>) (HS)
kenong:	In Central Javanese gamelan and Sundanese <i>gamelan salendro</i> , a horizontal gong chime with one to six large, high-pitched gongs (HS)
kenongan:	A musical passage ending on a <i>kenong</i> -stroke (MP)
ketuk:	A small knobbed gong (HS)
lancaran:	A compositional form whose <i>gongan</i> consists of eight <i>balungan</i> beats divided into four <i>kenongan</i> (MP)
laras:	One of two tuning systems, <i>slendro</i> and <i>pelog</i> (MP)
manyura:	Name of one of the <i>pathet</i> in the <i>pelog</i> tuning system (MP)
mipil:	Embellishing pattern on the <i>bonangs</i> (NS)
padhang-ulihan:	Antecedent and consequent. Two words used to describe the phrase-structure of gamelan pieces (NS)
pancer:	Javanese and Sundanese musical process in which a note is inserted between each of the melody's existing notes (HS)
panerus:	In Sundanese <i>degung</i> , fourteen-key metallophone (also called <i>demung</i>); in Sundanese <i>gamelan salendro</i> , six- or seven-keyed metallophone, one octave lower than <i>saron</i> (HS)
pathet:	One of six (or seven) “modes” in <i>slendro</i> and <i>pelog</i> (MP)
pelog:	A Javanese, Sundanese, and Cirebonese seven-pitch non-equidistant tuning system (HS)
pelog barang:	One of two 5-tone subsets of the <i>pelog</i> tuning system
pelog bem:	One of two 5-tone subsets of the <i>pelog</i> tuning system
saron:	Single-octave metallophone with keys suspended over a trough resonator (JL)
slendro:	A Javanese five-pitch equidistant tuning system; equivalent to Sundanese <i>salendro</i> (HS)

suling: End-blown bamboo flute (NS)

wela: Omitted *kempul* stroke in a Javanese colotomic form (HS)