

Oleg Tumulilingan

Layers of Time and Melody in Balinese Music

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Time and Culture in Music

This chapter introduces the music of the Balinese *gamelan* and explores the layers of structure of a well-known composition in its modern repertoire. I pursue this as an end in itself, but the composition's structural features and temporality help me draw attention to the broader challenge of how to experience and imagine time in particular musical contexts, both through Balinese music and in comparison with other musics. Let me begin with a view of the latter aims.

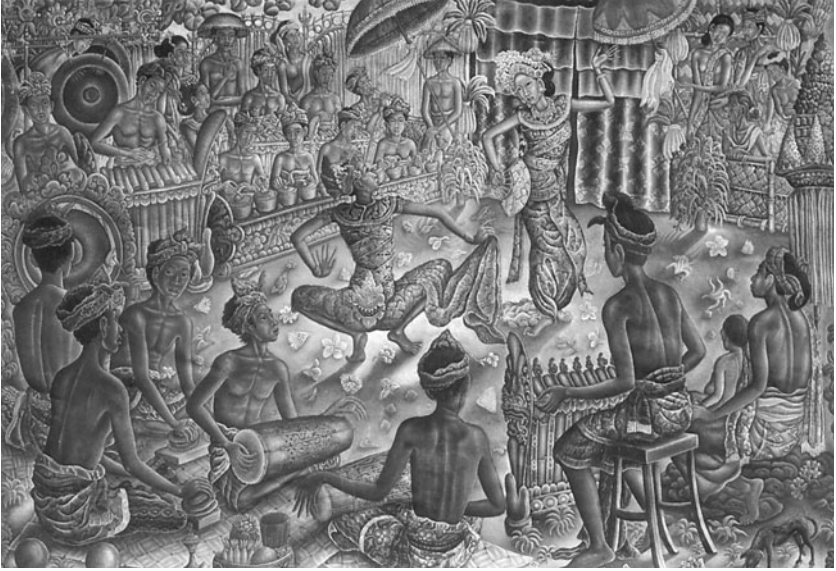
One of the reasons music is so important to people relates to its depiction and seeming resolution of the paradoxes of the human dimensions of time. Once we have taken a moment to reflect, little else is as compelling. Of course time is many things. We perceive it in our world, but must invent ways to describe and understand it. Whatever its actual nature from a physicist's point of view, or from a mystic's, for most people time is conceived through conventionalized images and metaphors. Time is felt at the least to be both a progression (because we age and die) and a regeneration (because of the Newtonian mechanics of orbits and seasons). Anthropologists might explain this duality in terms of individuating, bodily experience versus communal, life-cycle experience. Some philosophers might speak of it as becoming (motion) and being (stasis). Oriented as we are in the contemporary world toward the visual, we often think of these two perspectives as opposed, rather like lines and circles are opposed in a two-dimensional plane—no matter what we know of Ein-

stein's curved time, and no matter what higher nonspatial resolution we suspect exists in religious or cosmic realms. Or one may think of oneself as stationary while time moves "through" us, as opposed to actively moving together along with time. It is hard to imagine how *not* to experience a tension between these contrasting qualities, because they shape experience at the most basic level. But are these extremes as opposed as the geometry of lines and circles suggests? Music has other ideas.

In music patterns of repetition proceed together with those of development and change. Such is also the case with many other experiences we have of the world, including visual and verbal ones. But music holds a special place because, like time, sound is ephemeral and cannot be held. Music's enactment of time can only be roughly approximated by visual, verbal, or mathematical means. Its ineluctability causes us to consider music to bear essential truths that we crave knowledge of. In music we can grow and be reborn simultaneously.

There are many ways in which line and circle—or, if one likes, progression and stasis—can be simulated and merged in music. Some music is almost irreducibly elemental and static, built up from the simplest of short, repeating, circlelike patterns. Yet it moves progressively, too, and is invariably inflected, at the very least (with the arguable exception of certain repetitive electronically made musics), with perceptible fluctuations in intensity and delivery that superimpose a sensation of time moving directionally. At the other extreme, some music aims to eschew repetition by constantly changing and striving to move forward though time. It will nevertheless, despite intentions, exhibit recurrences and contextual relationships between sounds or melodies. Even if one could imagine a music in which pattern and repetition were truly absent, our obsessive, order-seeking psyches would try to find ways to impose them or else, in all likelihood, reject the music as incoherent. Music can do no more than represent or suggest certain temporal qualities but the perception of them—the experience of them—is up to us, and depends upon our habits and perspectives.

The piece of music from Bali under consideration contains layered, culturally distinctive constructions of progressive and repetitive time structures. The encounter with Balinese music is itself worthwhile in terms of taking the lid off of it *per se*, and getting to know some of its ingenious features. This possibility alone justifies the study, but as a knowledgeable outsider to the music I have gone further in some regards. I hope that my analysis can provoke an unsuspected cross-cultural experience that even Balinese listeners are quite unlikely to be conscious of. That my perspective is not in itself especially Balinese I can say with some confidence, having spent countless hours in discussion with Balinese about music and related ideas. But it is both fitting and inevitable for a world in which musics are internationally available, and our imaginations lead us to create new, and hopefully beneficial, meanings and uses for



Oleg Tumulilingan by Anak Agung Gde Sobrat. Courtesy Neka Gallery, Ubud, Bali.

them. One can realistically hope that Balinese might thank us for our thoughts on their music, as we might thank them for thoughts on ours.

In terms of any general discussion about time, some additional implications (at least for those likely to read this book) will be cultural. The distinctions between so-called “linear” and “cyclic” have become for many—both in music and other cultural domains, and consciously or not—associated with certain perspectives in a regrettably black-and-white way. Their symbolism is enormous and tenacious. The linear, always-changing kind of time is associated with historical progress and a Western, bourgeois, capitalist (call it what you will) view. On the positive side, this kind of time symbolizes the modern and liberated cutting edge of humankind’s inventiveness; on the negative it signals hegemony, domination, elitism, and rootlessness. By contrast, repetitive musics are associated with “traditional” cultures—or their modern heirs, popular musics. On the positive side, this is thought of as communal and participatory; offering needed antidote and resistance to the decadence of the modern and hyperindividual; seen negatively it is crude and naïve, or else an overcommercialized, mechanistic commodity corrupted by the same capitalism it holds out against.

These symbols are old-fashioned and simplistic beyond the point of cliché. Nowadays they may grate on the sensibility of any of the millions who love and identify unproblematically with groove-based popular or traditional mu-

sics, the formally elaborate narratives of modern Western music, the patient trajectories of North Indian classical music, or others among the vast possibilities that exist. Why, then, do the symbols persist, embedded in cultural norms that pit the West against the rest? Merely asserting, as has been done, that they are false and outdated has not yet put them to bed. We are better off trying to dislodge them with concrete counterexamples such as the one I will discuss. Balinese music is a good place to do this kind of work because it has often been invoked (for the wrong reasons, in my view) as an exemplar of nonlinear time, an icon of an exotic culture that is irreconcilable with the cosmopolitan West. In a nutshell, the tired assumption is that Balinese music is static and Western music isn't.¹ I am not here to argue that this is or isn't the case as much as I am to persuade that the distinction between static and progressive musical time is itself false. Musical time, consistent with experience of lived time, is not either/or. It is both/and.

Balinese Gamelan

Fabled Bali isle, a small province of Indonesia with a culture blending Southeast Asian and Hindu elements, has a deep and continuing history of musical abundance. Chant, song, and ensemble musics flourish there, often combined with poetry, dance and theater. Music remains as indispensable in the twenty-first century for Bali's many religious rituals as it was also for royal ceremonies of former times, and it continues in many informal, "folk" contexts. This is not to suggest that Bali itself is stable; it is engaged in constant debate and struggle over how to variously alter, adapt, discard, and reinvent its traditions to cope with modern Southeast Asian and global realities. Curiously, however, in the face of all this, its dense, dynamic instrumental music has proliferated with a vengeance. One part of its success has to do with the fact that for about a century it has been heard not only in ongoing, well-anchored ritual roles, but with growing frequency at secular events. In conjunction with recordings made and distributed worldwide, this has created considerable international demand. Like its home, Balinese music became famous. Ensembles have toured

1. This idea of "static time" in Bali generally (and gamelan particularly) flourished throughout the mid-twentieth century, reaching an apogee with Geertz (esp. 1973). It was stressed in ethnomusicology beginning with Colin McPhee's writings of the 1930s, up to Becker and Becker's seminal article about Javanese music (1982; see reference to this also in the Vetter/Sutton chapter in this volume), and Bassett 1995. The impact of such thinking is waning though slow to dissipate, as it is linked to perceptions about the irreducibility of cultural differences (Agawu 2003).

abroad since 1931, and since the 1950s thousands of foreigners have been drawn to learn the dance and music either by going there to study or by using exported instruments. I am one of them, captivated by playing, researching and composing it since 1977.

The nonvocal music is played on one of many different kinds of sets of mainly percussive instruments (with some bamboo flutes and one bowed instrument, the *rebab*) called *gamelan*, a word related to one for “hammer,” which refers to the variously shaped mallets used. *Gamelan* in Bali can be owned by temples, schools, government offices, tourist resorts, individuals and especially by village districts called *banjar*, which store them in a public hall where people meet to practice together. More than eighty players and as few as two may be required, and the many varieties of instruments can be of wood, bamboo, leather (for drum skins), and, most characteristically, forged bronze shaped as keys or gongs of all sizes.

Historically, *gamelan* genres have specific uses and repertoires; for example, there is one genre called *gamelan gender wayang*, which has only four instruments of ten bronze keys each and a cohesive family of music compositions used for shadow puppet plays (an important theater form) and a few other kinds of rituals and theater. Every *gamelan* genre has a certain instrumentation, musical style, and particular way of adapting Balinese scales and tuning systems that makes it audibly and visually unique. The compositions, too, are distinctive and composed-out, though as intellectual property they are fluid, varying from village to village and subject to changes and modifications made by thoughtful players or ensemble leaders. As carefully composed and detailed as they are by the time a group commits itself to learning one, however, compositions are always taught orally and memorized strictly. This lengthy and satisfying transmission process catalyzes group social cohesion. And *gamelan* organizations also vary dramatically, both in terms of the sound of the instruments they play on and the character, skill, spirit, and history of the generations of musicians in each group.

The quintessential and most popular Balinese *gamelan* since Indonesia’s 1945 independence is an ensemble requiring some twenty-five to thirty musicians. It includes about fifteen impressive bronze-keyed metallophones in several ranges spanning over four octaves, many sizes of gongs, from large and profound to tiny and pealing, two conical, double-headed drums, and bamboo flutes. It is known as *gamelan gong kebyar*, or *kebyar* for short. *Kebyar* is also the associated style: virtuoso, capricious, dazzling, complex—both in performance and musical concept. Listening to kebyar on CD as a newcomer can be overwhelming if one wants to know how the music is organized. One contends first with the sheer fact of a hail of reverberating, mallet-beaten bronze producing storms of crashing overtones. The music pulsates and throbs and is

often thunderous and breathless, but sometimes suddenly hushed, and just as startlingly, loud and breakneck again. It is in a tonality all its own and saturated with stops, starts, turns and jumps between multiple melodies, textures, and tempi.

Yet cosmopolitan ears—alive to the way that foreign sound worlds beckon like secret epiphanies—sense order regulating the fury. But how to know it? There is no substitute for the “real thing” of immersion study. But with the help of CD track 12 and the transcriptions provided, I will guide you quickly through the basics and into some subtleties.

We are concerned with a *gending*, or musical composition, called *Oleg Tumulingan*, created in 1951. It remains popular in Bali to this day, where everyone saves their breath and just says *Oleg*. *Oleg* is modern and secular: it was commissioned from musician Pan Sukra and dancer Ketut Maria for the occasion of the first major international tour of Balinese music and dance, in which the troupe from Peliatan village spent six months of 1952 in England and the United States, finishing with a much-hyped run in Las Vegas (the same group had also played at the Paris International Exposition in 1931).² But there is a well-known story about how the Peliatan musicians refined and elaborated what they took to be Sukra and Maria’s “rough draft” after learning it and peremptorily dismissing the unwitting pair back to their home village. The anecdote is instructive both for demonstrating how malleable Balinese compositions are in performers’ hands and equally because it indicates that the *Oleg* under discussion later, performed by musicians at the STSI music academy in 1991, is only one of many possible versions. With a popular piece like *Oleg*, variants would all use mostly the same music; the differences would come in the ordering of things, the tempi and dynamic changes overlaid, and the outlay of various kinds of melodic and rhythmic detail. Our analysis is thus only of this version, not of any elusive “*Oleg*” itself. Other versions would to a certain extent provoke their own analyses.

Oleg is associated with its choreography, which is every bit as fixed as its music (though similarly variable in detail from village to village). The movements, postures, and choreographic patterns of Balinese dance comprise a complex mirror of the music. Although a proper exploration of these essentials cannot be made to fit into the primarily musical concerns of the present chapter, the dimensions of richness they impart should be invoked and borne in mind. *Oleg*’s begins with an elaborate, abstract solo depicting a seductive female bumblebee flitting among flowers. With fingers outstretched and eyes sharply

2. *Oleg*’s creation is described in Coast (1953).

focused, the dancer's body is angled into the S-shaped basic posture of Balinese female dance, with feet slightly apart, fingers and toes bent up, and arms half-extended and raised to shoulder height (see page 207). Movement, by turns for arms and facial expressions only, or by small footsteps or knee bends, or in running sweeps around the stage, is organized into segments that correlate closely with musical phrasing and form. Costumed with a shimmering gold headdress and elegantly patterned sarong, the dancer's torso is wrapped in long strips of bright purple (or red, or green) and gold layers. A pair of thin scarves hanging from either side of a waistband are often lifted with the fingers and outstretched to where they hang just below the arms to simulate wings. Two-thirds of the way through, a dancer portraying a male bee joins her for a flirtation.

My observations on *Oleg's* music are limited to the tightly constructed five minutes and twenty-two seconds of music (in this recording) accompanying the first half of the solo part of the dance. Although never performed separately, the music there is self-contained and could stand alone. It is not used later in the piece, and when it ends, after a very clear and slowed-down cadence, there is a full pause before the remainder commences. *Oleg* in full lasts for about fourteen minutes.³

Basics of Balinese Gamelan via Oleg

Skipping over *Oleg's* dramatic, fragmented introductory passages for the moment, let us take our entrance into the music during the ensuing slow section. Our concern is with melody and formal structure; the drumming, although clear and engaging on the recording and important for many reasons, is not of itself vital to the present analysis and will merit only tangential mention in what follows. One also hears the bamboo flutes prominently here. Although much prized for their sweetness, these essentially duplicate, via decorative paraphrase, the melodies played on the bronze instruments. Hence, we will focus on the latter to explain the music, as would the Balinese. Bear in mind the following practical terms, all of which have fairly precise Balinese equivalents: *beat*, understood as one of a series of equal time units of fundamental importance; *cycle*, a series of (in this case) sixteen beats "filled" with melody, drumming, and so on; *punctuation*, the stressing/marking of certain beats in each

3. For analysis of other parts of *Oleg*, see Tenzer (2000, *passim*) and Ornstein (1971, *passim*). For more on the dance, see Bandem and DeBoer (1995).

cycle with an identifying pattern of strokes played on gongs of different sizes and sounds; and *strata*, the numerous layers of melody, punctuation and drumming that fill out cycles, each with a mainly consistent rate of subdivision.⁴

Oleg is composed within the scale/tuning environment characteristic of *gamelan gong kebyar*. This is a five-tone subset of a seven-tone aggregate found regionally and well-known by the Javanese word *pélog*.⁵ Different *gamelan* reflect the system in their own ways, and historically there has been no standard. What makes the *kebyar* five-tone scale recognizable is its pitch level (the first of the five tones will lie somewhere between Western [B] and [D#]), and the general pattern of intervals within each octave: small-small-large-small-large. The “small” can vary from less than a half step to more than a whole step, and the “large” between a wide minor third and a narrow perfect fourth. Approximating one possible version, my transcriptions use the Western sequence [C#–D–E–G#–A–(C#)]. Connections among adjacent pitches in this list are stepwise moves in *kebyar* even though it may not look that way on the Western staff (as between [E] and [G#] or [A] and [C#]). Admittedly the use of Western notation creates these sorts of problems, but the familiarity of the system itself is compensation. Throughout the transcriptions, too, there is nothing on the [F] or [B] places on the staff; analogs of these tones are not present at all. This explanation, however, can not really account for the special sound-world of the ensemble. The gamelan shimmers and pulsates intensely, as a result of the complex overtone clouds created by the action of wood striking bronze, and also the purposeful mistuning of pairs of instruments to create rapid acoustical beating.

Consider first the slow, settled passage lasting a single cycle from 1:00 to 1:32, at the entrance of the bamboo flutes (the sixteen beats last for a generous two seconds each at this pace). Five strata of the bronze instruments playing in this passage are transcribed in figure 6.1. One sees and hears how they are rhythmically stratified, like an inverted trapezoid set over a base of gongs at stratum 5. Each stratum is strictly set at a given rhythmic density (at least in this passage, which is a more or less default arrangement subject to much variation later).

4. Throughout I avoid Balinese terms for names of instruments and musical techniques when possible, fearing that an abundance of these would muddy the waters for my intended audience of mainly newcomers to Balinese music. Similarly, I avoid any discussion of general aspects of the music not directly related to the present analysis. Of course such information is readily available. Writings in English on Balinese music include McPhee (1966); Tenzer (1998, 2000); Harnish (1999); Basset (1995, 2004 [in French]); Gold (2001, 2004); Vitale (1990, 2003); and McGraw (2005).

5. The sixth and seventh tones of the scale are simply not present on the tuned bronze *kebyar* instruments, though flutes, rebab and occasionally-used singers can make them available. Other types of Balinese gamelan do avail themselves of all seven tones.

FIGURE 6.1. Oleg: *Melodic Strata and Gongs in cycle 8 (1:00–1:32. see appendix for fuller transcription).*

1:00

Stratum 1 (Payasan; slow version)

Stratum 1.1 (Payasan; fast version)

Stratum 2 (neliti)

Stratum 3 (pokok)

Stratum 4 (jegogan)

Stratum 5 (gongs)

Beat Number: (16) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

P.T. P.T. P.T. P.T. P.T. P.T.

P.T. P.T.

Kempli
Gong

Kempur Kempur Kempur Gong

Although the music looks a bit rhythmically monotone on paper, we hear the musicians articulating the individual notes in varied ways, whereas the flutes and the drums add extra rhythmic and melodic nuance. Melodically, each stratum from 1 to 4 has its fixed sequence of tones. Scan the score vertically for the beats at which each stratum aligns with the ones above or below it. These nodal points are always related at the unison or octave or else by locally passing or neighboring tones (labeled P.T.). In this way one also hears, and can see, that the whole complex is unified through pitch-class identity and function as reflections of a single melodic concept.

The concept applies to each stratum in a different way. Stratum 1, played by the *payasan* (figuration) instruments is the densest and most prominent. I represent it here with a single sixteenth-note line despite the fact that there are actually twelve musicians working it out in different ways on three different kinds of instruments.⁶ Only two of the twelve musicians play what I have written; two others play it an octave higher. Eight more play complementary parts in various possible configurations and registers that, in the end, all meld into a seamless, articulate band of sound (see appendix for a detailed and complete rendering of this passage including flutes, drums, and all melodic configurations).

Stratum 1.1 shows the same material as it would be played at a fast tempo (this is for illustration only, because even elsewhere in *Oleg*, because of alterations in phrasing, it is never actually rendered in precisely this way). Here two musicians would play the stems-down tones and two more play the stems-up part, interlocking closely to create a line just like that in stratum 1 but impossible for individuals to play at such a speed. Four others would double this quartet an octave higher, and the remaining four players in the stratum 1 group would play complex complementary parts as before. Balinese music is renowned for such interlocking (called *kotekan*), and it has been documented copiously.⁷

Stratum 2, what is termed *neliti* (“that which is correct or precise”), proceeds once per beat. Although there is a metallophone called *ugal* that *can* play the *neliti* if its player wishes, at slow tempi he or she is much more likely to ornament it. When the twelve players of stratum 1 drop out momentarily, as they often do, ornaments in stratum 2 stands out (1:50, 2:41 etc.). But in the passage shown in figure 6.1, not only is the *ugal* close to inaudible, the *neliti* is itself something of an imaginary guide, analogous to the sequence of chord changes present in a jazz tune, which are certainly *there* even though they may be liter-

6. They are *pemadé*, a set of four metallophones with a two-octave range; *kantilan*, another set of four identical to the first but one octave above it; and *reyong*, a row of twelve tuned gongs two octave plus two tones) played by four musicians each commanding two or three of them, and sharing one or two others with the player(s) beside them.

7. Bandem (1993), Vitale (1990), Tenzer (2000), Tilley (2003).

ally present only in an abstract way. And as with jazz changes, following this quasi-imaginary progression is important.

Strata 2, 3, and 4 are usually each played on one of three specially designated pairs of instruments, each pair in its own register. A pair called *penyacah*, not heard on this recording, play the *neliti* verbatim. Balinese call stratum 3 *pokok*, or core (or root, or trunk) tones, because of its central place in the texture. In stratum 4, the deep *jegogan* support the *pokok*, playing at half its rate.

Stratum 5 displays the punctuating gongs so indispensable to the structure and feeling of Balinese *gamelan*. The upper part shows the *kempli*, a small mounted gong making a “tk” sound. Here it plays every two beats, reinforcing the *pokok*. At faster tempi, to help the interlocking parts stay oriented, it would play at *neliti* rate. Below we see the hanging instruments *gong*, *kempur*, and *klentong* (abbreviated G, P, and t), aligned in density with stratum 4. The deep *gong* marks cycle endings/beginnings, the midsize *kempur* marks the first and third quarters, and the high “tong” sound of the *klentong*, harder to hear on the recording, the midpoint.

Oleg’s sixteen-beat cycle, as a generative space for melody and a regenerating seed for form, is defined and identified by this pattern of gong, kempur, and klentong. The music should be counted and felt in such a way that the gong arrival at beat 16 receives the strongest accent. Because this is also the point at which the cycle begins, the notation commences with a labeled beat 16. But all the tones above it are in parentheses, as if to suggest the end of a previous cycle.

Oleg does not “own” this punctuation pattern; in fact, it is used in so many compositions and is so taken-for-granted that Balinese have no agreed-on name for it.⁸ In the part of *Oleg* we have taken up this formation is always present, holding fast while everything changes around it, like signposts in a shifting landscape.

Oleg’s Architecture I: Tempo and Dynamics

Architecturally speaking, what makes *Oleg Oleg* is the combination of the hanging gongs’ unchanging, repeating punctuation cycle and the directed progressions of melody (and drumming) that fill this framework. In all the gong cycle occurs twenty-seven times, but the way it fills clock-time is elastic. Consider this first from the perspective of tempo and dynamics. In figure 6.1 the sixteen-beat distance from gong to gong was thirty-one seconds (equivalent to about MM = 32) but elsewhere—at 0:29, 3:53, and 4:42, and others—it com-

8. Some call it *tabuh dua*; *tabuh* means cycle-type and *dua* means two, which refers to the two *kempur* strokes before each gong stroke (Wayan Beratha and Wayan Sinti, personal communication, 1998). The pattern is also called *bapang*. (Tenzer 2000:257).

presses to 5 seconds ($MM = 192$), a 600 percent difference in speed! (In other words, when the music is fastest, six notes fill the time that one note filled when it was slowest.) Still elsewhere, it accelerates or slows as if it had been suddenly stretched or relaxed, while ranging between loud and soft often and with comparable unpredictability. Depicted on a graph, the tempo displays a clear but imperfect sinusoidal shape. The shifts between slow and fast are dramatic and intriguing: they both mask the regularity of the sixteen-beat gong cycle and exploit that same regularity as a way of keeping the music unified, even (Balinese would say) simple, despite the fluctuations. Because of the gong's recurrences, throughout we grasp that the twenty-seven cycles are identical in some way, despite changes in tempo and dynamics.

Figure 6.2 graphs the twenty-seven cycles, measuring the speed of the beat against the "arbitrary" elapsing of minutes and seconds. If we could somehow set aside our reliance on the framework of clock-time for comparison we might feel as though time itself was speeding and slowing. The twenty-seven gong strokes are numbered and circled, with their clock-times indicated. The continuous black line passing through the gongs represents the musical continuity, curving up or down at accelerations or ritardandos. Balinese are emphatic that gong comes at the *ends* of cycles, even though cycles are also considered circular by them (which is their own version of the pleasant contradictions between regenerative and progressive time as, of course, circumferences have no beginnings or endings). Nonetheless, later, for essential reasons relating to the construction of the melodies, when discussing the music within a given cycle, I refer to the portion of the black line approaching the *left* of the numbered, circled gong strokes in this figure.

The thick band across the middle of the graph depicts orchestral texture and dynamics. The wider the band, the louder the sound. Narrow vertical lines within the band represent textures where part of the ensemble is not playing, and thicker ones are used when all play together. Here it can be seen that generally speaking, soft dynamics are associated with slower passages and loud dynamics with faster ones.⁹ The music leading to gong 7 and continuing to

9. It must be understood that structurally insignificant changes from soft to loud or vice versa often occur within a cycle; what I have tried to characterize in the graph and in this paragraph is the structural dynamic character of cycles as wholes. For example, I speak of cycle 16 as being at peak dynamic though its final four beats are *subito piano*. There are many other such very surface, "expressive" changes, although I concede that in the present analysis, in order not to digress too much, I have not furnished sufficient criteria for distinguishing between these and structural ones. A more thorough (although still inchoate) approach to the interrelation of surface and structural aspects of dynamics and tempo is suggested in Tenzer (2000: 343–52).

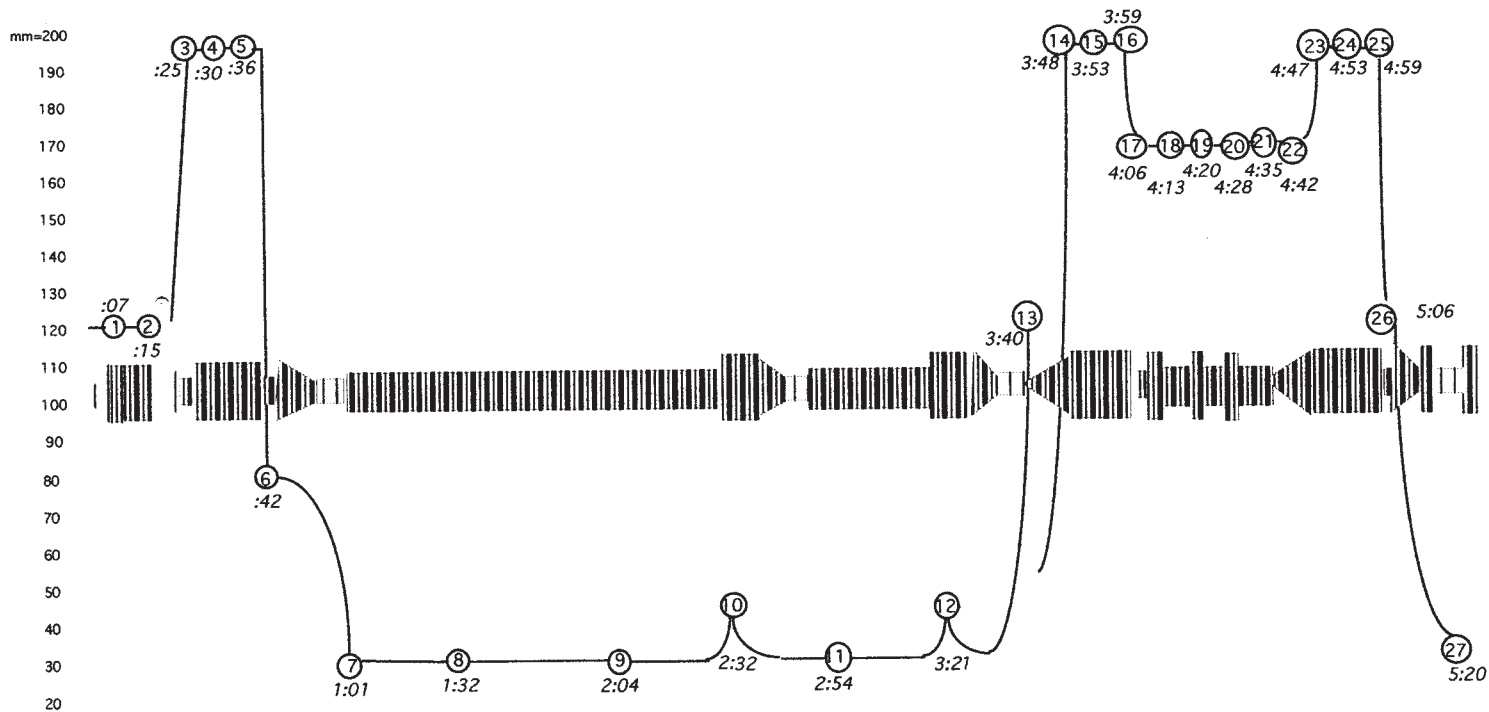


FIGURE 6.2. *Graph of Tempo and Dynamics in Oleg.*

gong 13 (just after 0:48 to 3:40) is soft except for the supple fluctuations leading to and away from gongs 10 and 12. The very fastest passages, spanning cycles 4 to 6 (0:25–0:42), 15 to 17 (3:48–4:06) and 24 to 26 (4:47–5:06), are all at high dynamic; all cadence with a sudden dropoff in volume and speed. The slightly less-fast music between gongs 18 and 23 is exceptional because of its sequence of abrupt dynamic changes, making it something of a climax in the evolution of tempo and dynamics through the composition.

Tempo and dynamics cooperate to articulate several possible perspectives on musical form. The pattern of their organization can be represented by letters as ABCBDBE. The intro A (the fast cycles 1–3) and the outro E (cycle 27, slow) flank the whole as though a set of musical parentheses. They in turn enclose the three symmetrically placed tempo “peaks” represented by B, each three cycles long. Bridging the three Bs are the two six-cycle center sections, the slow C and fast D. But these elegant proportions are thrown gently askew by the one-cycle transitions bracketing C, the first of which slows the tempo while the second speeds it up (cycles 7 and 14). This is an enrichment heightened also by the fact that C is so dramatically slower than the rest of the music. Indeed, the tempo differences between A, B and D feel more like gradations than genuine contrasts. Together, they comprise a large region of fast music, all of which is heard in clear juxtaposition to the central slow section C. To close the music E gradually returns to C’s tempo as if to remind us that the latter is a stable, grounded state. For another view, one also could say that because C and D last for an extended number of cycles they claim the lion’s share of our focus, and because of their contrasting tempi balance each other suitably. They are the central, most substantial passages. Seen this way, B’s function is merely to link the other sections together.

The foregoing discussion is condensed into figure 6.3. In the next section’s melodic analysis, we will layer on many additional observations about form.

Oleg’s Architecture II: Melody and Figuration

Which of the various strata in figure 6.1 can be said to be the *actual* melody of *Oleg*? We have a semantics issue here, in that the closest vernacular equivalent of the word—*lagu*—is more flexible than the English one. In Bali “melody” can be any of the whole complex of strata. It is as if together they form a many-edged prism: there is a beam of light going in (the full ensemble) and separate spectral components coming out (the strata). In effect, whichever stratum one has under consideration can be called the melody because it is understood that the others are joined to it, cooperative with it.

FIGURE 6.3. *Tempo and dynamics in Oleg, shown in relation to the 27 gong cycles.*

<i>Cycles (1-27)</i>	<i>Number of Cycles</i>	<i>Tempo</i>	<i>Dynamic</i>	<i>Formal Pattern</i>
1-3	3	(Intro)	Varied	A
4-6	3	Peak	Loud	B
7, 8-13, 14	1,6,1	(Trans.) Slow (Trans.)	Soft	C
15-17	3	Peak	Loud	B
18-23	6	Fast	Soft/Loud	D
24-26	3	Peak	Loud	B
27	1	(Outro)	Varied	E

We are to be concerned with the two strata that appeared in figure 6.1 as strata 1 and 3. The former I have described as the figuration (or *payasan*). For the latter (the *pokok*) I shall use the term core melody, because its function is foundational. Figure 6.4 is a transcription of the figuration of the entire twenty-seven cycles of the performance. Each is numbered; the cycle shown in figure 6.1 now turns out to be the eighth of these. The various tempo designations used in figures 6.2 and 6.3 (slow, fast and peak) appear in the conventional place at the upper left of each line of music. The word “solo” (cycles 1, 3, 7, etc.) indicates a passage when the twelve *payasan* instruments drop out temporarily, leaving the *ugal* exposed above the slower metallophones—including the core melody, which is always playing—and usually the drums as well. As in figure 6.1, stems-up tones indicate tones that interlock at fast or peak tempi; at slow tempi, the stems-up parts move in parallel or at the unison.

Analysis of the transcription, including the core melody underpinning each of the twenty-seven lines of figuration shown, proceeds in four stages. The first three develop typologies of the various permutations used in the music for a specific aspect of the melodic/figurational structure. In a final stage the typologies are combined, overlaid, and integrated with the tempo analysis above to create a composite picture of these factors.

Permutations of the Core Melody and Their Affiliated Figurations

With the exceptions of the introductory cycles 1, 3 and 4, the remaining 24 cycles in *Oleg* all have the same core melody, however varied their figuration and other characteristics may be. The core melody also has some (very basic) transformations of its own: it appears in its original form, labeled “A,” as well as in transposition down by two scale steps, “B,” and in two forms that enable

FIGURE 6.4. Full transcription of figuration stratum.

The musical score consists of 14 staves, each representing a different instrument or voice part. The notation includes various rhythmic patterns, including sixteenth and thirty-second notes, and rests. Performance instructions are placed above the staves to indicate changes in tempo and dynamics.

- Staff 1:** Labeled "Gong Cycle 1". It begins with a "Fast" tempo and a "Solo" section. The tempo changes to "All" at the end of the staff.
- Staff 2:** Labeled "Cycle 2". It starts with a "Fast" tempo and continues with a complex rhythmic pattern.
- Staff 3:** Labeled "3.". It starts with a "Fast" tempo and a "Solo" section, then changes to "All" at the end.
- Staff 4:** Labeled "4.". It starts with a "Peak" tempo and continues with a complex rhythmic pattern.
- Staff 5:** Labeled "5.". It starts with a "Peak" tempo and continues with a complex rhythmic pattern.
- Staff 6:** Labeled "6.". It starts with a "Peak" tempo and continues with a complex rhythmic pattern.
- Staff 7:** Labeled "7.". It starts with a "(Rit.) Slow" tempo and a "Solo" section.
- Staff 8:** Labeled "8.". It starts with a "Slow" tempo and continues with a complex rhythmic pattern.
- Staff 9:** Labeled "9.". It starts with a "Slow" tempo and continues with a complex rhythmic pattern.
- Staff 10:** Labeled "10.". It starts with a "Slow" tempo and continues with a complex rhythmic pattern.
- Staff 11:** Labeled "11.". It starts with a "Slow" tempo and a "Solo" section.
- Staff 12:** Labeled "12.". It starts with a "Slow" tempo and continues with a complex rhythmic pattern.
- Staff 13:** Labeled "13.". It starts with a "Slow" tempo and a "Solo" section.
- Staff 14:** Labeled "14.". It starts with a "Slow (Accel.)" tempo and continues with a complex rhythmic pattern.

At the bottom of the score, a "Beat:" line is numbered from 1 to 15, with a "(16)" in parentheses before the first number, indicating the total duration of the piece.

FIGURE 6.4. *Continued*

15. Peak

16. Peak

17. Peak

18. Fast

19. Fast

20. Fast

21. Fast Solo All

22. Fast

23. Fast

24. Peak

25. Peak

26. Peak

27. Slow Solo

Beat: (16) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

transition between A and B or vice versa: “A–B” and “B–A.” (Cycles 1, 3, and 4 all use a sole, mildly contrasting core melody. Although not analyzed here, I mention it to stress the music’s economy of means.)

Figure 6.5 displays cycles 2 and 5 through 27 (24 cycles), taken verbatim from figure 6.4 and rearranged in vertical alignment with their affiliated transfor-

FIGURE 6.5. Transformations of the core melody aligned with the styles and phrasings of their figurations.

A's styles and phrasings

Fast

Intro

Style I Phrasing a

Peak

Style I Phrasing b

Peak

Style II Phrasing c

(Rit.) Slow

Solo

Style II Phrasing d

Slow

Style IV Phrasing a

Peak

Style IV Phrasing b

Peak

Style II Phrasing d'

Fast

Style II Phrasing c'

Fast

Solo

(All)

(Gong) P t P Gong

CORE MELODY

Beat #: (16) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

B's styles and phrasings

CORE MELODY

Style II Phrasing d

Slow

Style II Phrasing d

Fast

Style II Phrasing c'

Fast

Solo

(All)

mations (“styles and phrasings”) of the core melody. Those that go with A are grouped in the upper left of the figure, those with B on the lower left, with A–B on the upper right, and with B–A on the lower right. The forms of the core melody itself are clustered at the center for comparison, and the sixteen beats of the cycle are numbered across the page between these central staves.

The core melodies are notated without stems and with alternating closed and open noteheads. The latter represent moments of greater metric impor-

FIGURE 6.5. *Continued*

A-B's styles and phrasings

Version II Phrasing d Slow

Style II Phrasing d Slow (Accel.)

Style II Phrasing d Fast

Style II Phrasing d Fast

Style II Phrasing h Slow Solo

(Gong) P t P Gong

CORE MELODY

(16) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

B-A's styles and phrasings

CORE MELODY

Style II Phrasing c Slow Solo

Style III Phrasing e Peak

Style II Phrasing c Fast

tance; in other words, beats 4, 8, 12, and 16 are stronger than 2, 6, 10, and 14. This hierarchy is reinforced by the gong punctuations (Gong, Kempur [P] and Klentong [t]) on the stronger beats and also by the tones in stratum 4 (as seen in figure 6.1). Although these distinctions and reinforcements are present, the core melody itself, as a sounding stratum, is heard on each even-numbered beat with utter regularity.

One can verify the transposition relationship between A and B by keeping the *pélog* scale in mind. Since the five tones are represented by [C#, D, E G#, A], two steps below core melody A's gong tone [G#] is B's [D], and so on. As shown with the dotted lines, ovals and brackets, A–B and B–A are easily derived from their parent versions. In the former case the melody begins just as A does until beat 6, but from beats 6–16 the tones of B are spliced on. B–A begins just as B does up to beat 14, where the last two tones of A are substituted. What happens in these transitions is that the gong tone changes from [G#] to [D] and vice versa.

What does it mean to say that the music in the various staves above or below the core melodies are in fact figurations of them? Scanning along a vertical axis from the core melody to its affiliated staves one finds consistent Balinese-style heterophony. Specifically, this means that the scale tones on each of the strong beats, and on most of the weaker beats, too, are always the same. Thus, for example, in core melody A's figurations, [G#] is always present on beats 4 and 16, [E] on beat 8 and [D] on beat 12.¹⁰ The figuration is actually a kind of filling-in at a greater rhythmic density, done in one of many possible styles drawn from a palette of possible figuration types.

Last, observe the variety of figurations, noting that the transformations of the core melody each have a different number of affiliated figurations. There are nine associated with A, only two with B, five with A–B, and three with B–A. Some of these clearly contrast with each other, while others are closely related and may only be different in one or two small features. Such differences are easily perceptible, however, and are not to be disregarded. I label the contrasting types *styles* and discuss small differences between two instances of a given style in terms of *phrasing*.

10. An exception can be seen at version I (staves 2 and 3) of the figurations lined up above core melody A. On beat 8, the core melody lands on E while the figuration is on D. This brief clash is resolved at beat 10. The alignment splits again at beat 12 and resolves again at 14. In effect, the figuration reverses the progression of the core melody at beats 8 and 12: it is D–E in the former case; E–D in the latter. These displacements do not alter the identity relationship.

Styles of Figuration

Because of their often quick rate of change and textural prominence, for most Balinese listeners figuration styles are expressive, influencing musical mood and meaning. Beyond this, for musicians and composers the palette of figuration styles comprises a collection of specific compositional techniques available to create desired musical impressions. Some styles are newly invented, while others originate, and are often uniquely associated with, certain older pre-twentieth-century gamelan genres. Thus, the use of a certain figuration style may constitute a clear reference to an older music, and the reference in turn evokes the particular ritual or social associations of that music. Or it may be something innovative and self-consciously new.

The vocabulary of styles appearing in *Oleg* happens to be small and conservative, consisting essentially of four historically derived types known respectively as *norot*, *nyog cag*, *ubit telu*, and *malpal* (there are no English equivalents). The references invoked draw, moreover, on a common and standard repertory of more-or-less “classical” composition techniques. By the same token the four styles contrast with one another clearly, and in so doing shape a series of clear structural profiles. As combined or contrasted within or among cycles, their expressive qualities are extremely familiar and unlikely to be lost on any (even minimally) competent Balinese listener.

Ila. Most prominent of the four is *norot*, which was already introduced (but not named) as stratum I (and I.I) of figure 6.1. *Norot* is associated with the repertoire of the grand *gamelan gong gde* of the former royal courts, whose many ritual compositions, developed over centuries, are heard regularly in temple ceremonies. It is spiritual and serious music, but as used for *Oleg*’s graceful bumblebee character it reflects also an association with untrammled nature, and a sense that the bumblebee, although playful and sensuous, has a sacred dimension.

Referring back to figure 6.4, *norot* appears in slow tempo for cycles 7–13, and, divided into interlocking parts, in fast tempo at cycles 18–23 and 27. Cycle 14 comprises an acceleration that begins slowly with the players dividing up into interlocking parts on the fourth beat. In cycles 7 and 11, the *norot* gives way to an *ugal* solo midway through. In other cycles, other kinds of phrasing changes occur as well. In cycles 8–10, 12, 14, 19, 20, and 23, the style’s very elemental design is most apparent. It consists of regular alternation, in sixteenth notes, between the current core melody tone and its upper neighbor. When the core melody moves, the *norot* moves three sixteenths in anticipation, articulating the change with a double-note figure.

For the ensuing remarks, bear in mind that a reference to beat I, for example, includes the tone that falls on the beat as well as the three sixteenth

notes *preceding* it, in order to remain faithful to Balinese end-accented perceptions. Norot's pattern of regular alternation can be seen at beats 2, 3, 5, 7, 9, and 11; the double-note figure at beats 6, 8, 10, and 12. The double-note figure also appears in beat 1, but as a kind of embellishment rather than as an anticipation. The purely decorative diversion at beat 4 is something added to give the overall line a distinctive shape so that it is not a purely generic realization of norot patterns. Ditto for the four-beat cadential figure at beats 13–16, which borrows from another kind of figuration style, *nyog cag*.

Iib. Nyog cag is associated with the innovations of gamelan gong kebyar in its early years, the 1920s and 1930s, though it is used widely in all kinds of music today. It is an interlocking style in which one part plays on the even and the other on the odd subdivisions of the beat; each part taking a disjunct shape that allows their composite to be conjunct through a kind of leap-frogging action. *Nyog cag* is athletic and traverses a much wider range than norot. Because it covers more pitches in less time, it has a stronger musical momentum. Its particular kind of interlocking makes it suitable for playing at very fast tempi, though it can also be slowed down enough so that a single player can play all of the notes, as in the four-beat cadential figure just mentioned.

In *Oleg nyog cag* is less pervasive than norot, and is used in balanced combination with other styles. Cycle 6, for example, begins with norot and ends with a different kind of figure (discussed later under phrasing), but features *nyog cag* centrally at beats 5–12; cycle 5 is identical save for a change in the phrasing at beats 11–12. *Nyog cag* also appears dramatically at the beginnings of cycles 16–17 and their repeat at 25–26, where it is soon supplanted by the third kind of style, *ubit telu*.

Iic. Ubit telu patterns interlock using a total of three scale tones every two beats (*ubit* is a term for interlocking parts; *telu* means three). They are heard in cycles 16 and 25 from beats 5–11 and cycles 17 and 26 from 5–13. Instead of *nyog cag*'s exact alternation, in *ubit telu* the two interlocking parts coincide whenever the middle of the three tones in use appears. Their association with sacred repertoire recalls norot's, but because they generally appear at fast tempi they have a more virtuoso, human character.

Iid. Malpal, the last of the figuration styles, is heard at two key junctures: cycle 15 and its repeat at 24 (recall from figure 6.2 that these cycles initiate the passages in peak tempo that flank the fast passage at 18–23). The style is characterized by rhythmic unisons and repeated pitches played at fast tempi at a mainly eighth note rate. As such it contrasts ringingly with the density of norot, *nyog cag*, and *ubit telu*. *Malpal* is actually a dance term connoting large steps used to circle or traverse the stage rapidly. The dancer does just this at these points in *Oleg*, whereas elsewhere her feet remain comparatively more static,

or take smaller steps. The contrast provided by the judicious introduction of malpal underlines the shifts taking place at those moments.

Varieties of Phrasing

In a Balinese composer's imagination, the art of shaping a figuration for a core melody can be described in terms of two stages. First, a style or styles is selected according to the expressive quality desired. It is a matter of applying imagination plus various grammatical rules to work out a good fit between the selected style(s) and the core melody. Normatively, figuration fills the entire cycle in a rhythmically continuous succession, the way, for example, norot and nyog cag do in cycle 8 (or 23). But cycles where figuration does not, in the end, unfold in this way, can still be *conceived* thus, at least initially. In the second stage of composing, to add detail and contrast, or to synchronize with key dance movements, the composer removes some segments of the figuration and substitutes other motives, or sometimes just leaves a "hole." All of these phenomena can be classified under the Balinese music rubric of *angsel*, that is, an interruption in a normatively continuous texture introduced for contrast and accent.

There is a hole in cycle 5 at beats 11–12, for in the following cycle the same nyog cag figuration continues through those same two beats. Cycles 16–17 and 25–26 are similarly related. The norot in cycles 18 and 22 is interrupted by a pause at beats 8–9; were it filled in, the cycle at 22 would give us the normative version shown in figure 1, stratum 1.1. The fact, moreover, that a normative version of the material in cycle 22 never appears underscores the flexibility of the materials. *Oleg* is strictly cyclic at its root, but one cannot overvalue the compositional importance of shading and altering materials in each cycle in unexpected ways.

There are two types of *angsel* in which melodic material or rhythmic motives are substituted for normative figuration. In one of these types, the figuration instruments drop out at beat 8, and are followed by an ugal solo lasting to gong. This occurs in cycles 7, 11, 13, 21, and 27 (in 27, the figuration also moves to a kind of subcadence at beats 6–7, and reenters at beat 13). The other type, which has three subtypes, comes at the concluding beats of the cycle. Figuration is replaced by a rifflike rhythm on the repeated pitch [E], complemented by the higher [C#]. The first of the subtypes, lasting four beats, is found in cycles 5, 15, 16, 24, and 25; the second, also four beats, is in cycles 6, 17, and 26. The third subtype, combined with the ugal solo in cycle 21, occupies on the last two beats.

I have now accounted for all of the twenty-seven cycles in figure 6.4, except for numbers 1 through 4. 1, 3 and 4 were excluded because they are based

on a different core melody. But cycle 2, based on core melody A, is unique. It uses none of the figuration nor phrasing strategies so far described, and its materials do not reappear elsewhere. They are, in fact, unique not just to cycle 2 but to *Oleg* itself, having the fanfare-like quality of a signature, inaugurating phrase. Nearly any Balinese could identify *Oleg* given just a segment of it.

The Composite Analysis: Core Melody, Style, Tempo, and Phrasing

Drawing on figures 6.2–6.5, figure 6.6 summarizes the progressions of the four parameters described above, aligning each in columns of a table whose rows correspond to the twenty-seven cycles. The rightmost column compiles the designations from the others into a single code. Bold horizontal lines within columns reveal macrorhythms comprising groups of cycles. Evidently, even though the parameters are well delineated within individual cycle boundaries, the cycles themselves cluster into diverse formations. These veiled, asynchronously layered shifts reside at a level of structure located between the individual cycle and the entire composition, a level that I have elsewhere called metacyclic (Tenzer 2000:276, 452).

A bird's-eye view make it plain that metacycles in different columns are often unaligned. The core melody's metacycles throw this asynchronicity into sharpest relief vis-à-vis the whole. Cycles 7–15 and 16–24 turn out to be iterations of a nine-cycle macropattern (numbered at the right margin of the column). Cycle 7 shares a boundary with the style and tempo columns, but it is out-of-synch with these when cycle 16 begins and aligned with the phrasing column instead. The nine-cycle group is thus reinforced by other structural parameters at each occurrence, yet differently. (For years I taught and performed *Oleg* and was provoked by an intuitive sense that a process of this sort was in motion, but it was masked by the progression of the other parameters and inaccessible until I worked out this analysis in detail.)

In the next two columns, the four different figuration style combinations are seen to align closely with tempo changes. Styles in cycles 2 (labeled X) and 5–6 (norot and nyog cag, labeled I) do not recur later. It is the consistent use of style combination II (norot with the four-beat nyog cag cadential pattern) that sets up the metacycles for this column. II appears in cycles 7–14, changing to III (malpal) and IV (nyog cag and ubit telu) when peak tempo is attained at cycles 15–17. The return to II at cycle 18 occasions the beginning of a second metacycle, which similarly shifts to III and IV at cycles 24–26. The two metacycles last 11 and 9 cycles, respectively; they are unequal but one may also say that at this level of structure they are balanced. This can be felt especially if one perceives the *fact* of II's extreme prolongation as the important thing,

FIGURE 6.6. *The composite analysis.*

Cycle #	Core Melody	Style	Tempo	Phrasing	Complete code
1.	(-)	(-)	Fast	(-)	(-)
2.	A	X	Fast	x	A/X/F/x
3.	(-)	(-)	Fast	(-)	(-)
4.	(-)	(-)	Peak	(-)	(-)
5.	A (1)	I (<i>norot & nyog cag</i>)	Peak	a (angsel subtype 1)	A/I/P/a
6.	A (2)	I	Peak	b (angsel subtype 2)	A/I/P/b
7.	A (1)	II (<i>norot & nyog cag cad.</i>)	(Rit.) Slow	c (hole & ugal solo)	A/II/S/c
8.	A (2)	II	Slow	d (normative 16th)	A/II/S/d
9.	A-B (= trans. A to B) (3)	II	Slow	d	AB/II/S/d
10.	B (4)	II	Slow	d	B/II/S/d
11.	B-A (= trans. B to A) (5)	II	Slow	c	BA/II/S/c
12.	A (6)	II	Slow	d	A/II/S/d
13.	A (7)	II	Slow	c	A/II/S/c
14.	A-B (8)	II	Slow (Accel.)	d	AB/II/Acc./d
15.	B-A (9)	III (malpal)	Peak	e (malpal & angsel "a")	BA/III/P/e
16.	A (1)	IV (nyog cag & telu)	Peak	a	A/IV/P/a
17.	A (2)	IV	Peak	b	A/IV/P/b
18.	A-B (3)	II	Fast	d' (d with hole)	AB/II/F/d'
19.	B (4)	II	Fast	d	B/II/F/d
20.	B-A (5)	II	Fast	d	BA/II/F/d
21.	A (6)	II	Fast	c' (c & angsel subtype 3)	A/II/F/c'
22.	A (7)	II	Fast	d'	A/II/F/d'
23.	A-B (8)	II	Fast	d	AB/II/F/d
24.	B-A (9)	III	Peak	e	BA/III/P/e
25.	A (1)	IV	Peak	a	A/IV/P/a
26.	A (2)	IV	Peak	b	A/IV/P/b
27.	A-B (3)	II	Slow	h	AB/II/S/h

rather than the exact length of its prolongation. When II returns again in cycle 27, it is as if the process is to begin again, but is truncated by the ending.

Phrasing, the most nuanced and variable element in the music, is consequently hardest to group and analyze. Using lowercase letters, the numerous *ansel* types (motives and holes) have been identified in the table according to their description in the discussion earlier. Some differences among them are so slight, such as between cycles 18 (d') and 19(d), that the decision was taken to use the designation "prime" for the former rather than a new letter. The rationale for identifying metacycles between cycles 5–15 (eleven cycles inclusive) and 16–24 (nine cycles) rests upon the way each group begins with [a, b] and ends with [d,e], with various combinations of c and d in-between. When a metacycle begins again at 25, it also starts with [a,b] only to be cut short, as with other parameters, by the ending.

Because the core melody proceeds at a medium (i.e., half-note) pace, as opposed to the figuration's quick (sixteenth-note) one, we may perceive the former as a kind of structural movement somewhat akin to harmonic rhythm in Western tonal music. Like harmonic rhythm, the core melody has that powerful ability to cast an organizing shadow over our other perceptions. Heard against other parameters, the core melody's nine-gong metacycle strongly supports the central, concluding points of the entire analysis, which can now be stated unambiguously: *Oleg* may be rigidly based on a sixteen-beat cycle of gong punctuations, but is irregular at higher levels and, in terms of combinations of parameters, essentially devoid of repetition altogether. In the rightmost column of figure 6.6, we see that when all of the parameters are combined, there is only one instance of precise repetition, at 15–17 and 24–26. But this is an exception that proves the rule. However efficiently related to their companions they may be, every other cycle in the piece is uniquely constituted. *Oleg* displays a clear tension between temporal qualities: a solid periodicity at the cyclic level is heard in productive conflict with sets of staggered periodicities at metacyclic levels. The multiple layering of these factors yields a forceful linear drive at the level of the entire composition.

An Experience of Oleg, and the Uses It May Have

The materials of the preceding analysis were presented in the order in which I became aware of them, first as a player, then in contemplation: the regularity of the sixteen-beat cycle, then the tempo and dynamic plan, then the unity behind the core melody's transformations, and so on to the multidimensional composite of all the factors. Now I experience an unnameable temporal complexity as I listen, in which a repetitive, circular time intensifies, expands and

contracts at multiple other levels through the building up of metacycles. I concede that the pair of nine-gong core melody metacycles (the grouping that is most asymmetrical and decoupled from other parameters, therefore most enriching of the overall complexity) are easier to comprehend than to follow. My own direct awareness of them varies according to how narrowly I focus my perceptions toward them, without ever disappearing entirely when my focus is broader. The point is that when “taking it all in,” when I listen to *Oleg* as an organic, end-directed narrative, the experience is textured by the many sub-levels, each independent and clearly articulated in its own right, that are always moving and standing still, returning and departing, ebbing and flowing at different rates, some regular, some not, some closed, some open.

Balinese music, for which *Oleg* stands here, offers a range of other temporal experiences, some more intensively cyclical, others more loosely discursive. *Oleg’s* asymmetrical layering does not make it unique in Bali, for there are select other, comparable pieces, but along with those it is distinctive in its special recipe for temporality: that is, it is hypertypical, a special achievement of the culture. That Balinese recognize its particular value is evident from the permanent place it was accorded in the repertoire, in a century that produced much music already forgotten. At the level of the culture one might describe *Oleg* as definitive, having remarkable musical qualities (plus terpsichorean ones) that, because of the ingenious trio of stratified structure, rooted cyclicity and directed compositional process, only Balinese music is capable of achieving in such a way. Any such representative of a culture, moreover, rightly deserves the opportunity to be juxtaposed and compared with its counterparts in other cultures, and here is where concentrated listening to *Oleg* may have a broader application.

As suggested at the outset, all music, or more precisely, all music as we perceive it, suggests both motion and stasis in time. Within Indonesia there are other, regional musics analogous to *Oleg* (see the following chapter, on Javanese gamelan) and still others stressing either periodicity or linearity to much greater degrees.¹¹ Because there is nothing particularly Balinese or Indonesian about any of these qualities in the abstract, by letting temporality be our linchpin we can wander worldwide. Much jazz, to give a sole example from elsewhere, has its own kind of stratified structure (rhythm section, riffs, and soloist(s)), its own periodicities (cycles such as the blues chord progression), but with a com-

11. For a wealth of information and examples, see Yampolsky 1990–2000. The forest music of Mentawai (vol. 7, tracks 13–16) contain examples of minimally adorned cyclicity, whereas bamboo music from the Kenyah River of Kalimantan (vol. 17, tracks 5–6) are complex and asymmetrical.

positional process that tends to be much looser than in Bali, owing to the prominence of improvisation (insignificant in Bali). Ingrid Monson's graphic reduction of her analysis of *Sent For You Yesterday*, a blues by Count Basie and his band, although done for different reasons and different purposes, can be profitably compared to figure 6.6 above (1999, figure 1; shown here as figure 6.7). She also discovers a multilevel progression of periodicities, comprising layered blues choruses, melodies, riffs, call and response patterns, orchestration changes, and so on that is kin to *Oleg's* metacycles.

How far could we imagine extending this comparative potential? Might we use periodicity to compare Count Basie to a Burmese *hsaing-waing* ensemble or Shona *mbira*? If we found common elements there would be nothing to stop us; and there just might be some, if the example of the far-flung encounter between Bali and Basie has any persuasive power. It may be unsettling to think this way, though, because in the study of world musics it is axiomatic that music aids in isolating and according special value to a culture's identity. We may, perhaps aptly, feel at sea without this orientation. Even where musics blend and change across borders and through diaspora, the tendency has been to disentangle structures to relate them to cultures of origin, or to new and emerging cultures, again to assert, or at least problematize, identity. And there is no question that cultural and musical relatedness have historically gone hand in hand.

Would the integrity of cultural identities be threatened if we stressed features uniting disparate musics rather than dividing them? What both Monson and I have shown analytically is that periodic musics can yield complex linearity. Taken together, our examples reveal how this is achieved in related ways for extremely different case studies. We did so, moreover, without first dutifully doffing hats to Mozart symphonies or Schoenberg quartets, as if linearity is something for which Western art music gets to set the terms. (Conversely, the conventional downplaying of repetition in most writing about Western music impoverishes our view of it too, and equally segregates it from the rest of the world.) And rightly so, since in our lifetimes Western cultural prestige has shifted and shrunk to more realistic and fair proportions, a reality paradoxically at odds with the continued urge to articulate cultural identities that were originally formed in a defensive response to its dominance. Thinking musically, it is no surprise that integrated linear/periodic structures proliferate well beyond and outside Balinese gamelan, jazz, *hsaing-waing* or symphonies, yet why do we still have so few demonstrations of these phenomena? I suggest that a critical mass of such demonstrations would ultimately require us to view linearity and periodicity as elements of a larger unity rather than as oppositions, and that to accept this would be to truly bind Western art music to the

FIGURE 6.7. *Monson's analysis of "Sent for You Yesterday."*

A				B			A				
Intro 8 bars	Chorus 1 12 bars	Chorus 2 12 bars	Chorus 3 12 bars	Interlude 4 bars	Chorus 4 12 bars	Chorus 5 12 bars	Interlude 4 bars	Chorus 6 12 bars	Chorus 7 12 bars	Chorus 8 12 bars	Coda 8 bars
Piano 4 & Reeds 4	Ensemble	Piano Solo	Tenor Solo	Reeds	Vocal	Vocal	Trumpet	Trumpet solo	Ensemble shout	Ensemble shout	Reeds 4 & Piano 4
	C&R brass and reed riff & solo alto sax	C&R piano solo & trombone with plungers muted	Over con- tinuous brass riff		C&R voice & trumpet solo, piano improv. in background	C&R voice and reeds over con- tinuous brass riff, piano off- beat hits		Continuous riff in reeds	C&R brass & reeds	C&R brass and drums over continuous wind riff	
(Unit of periodicity)	2+2	2+2	1		2+2	2+2 (voice + reeds) 2 brass 1 piano	1	1+1	1+1 (brass + drums) 1 (reed)		

(Monson 1999:35, reprinted with permission). "Sent for You Yesterday" (Count Basie-Eddie Durham-Jimmy Rushing) New York: 2/16/38 Smithsonian RD 030-2. Personnel: Buck Clayton, Ed Lewis, Harry "Sweets" Edison, tps; Dan Minor, Benny Morton, Eddie Durham, tbs; Earl Warren as; Jack Washington, as, bs; Herschel Evans, Lester Young, cl, ts; Count Basie, p; Freddie Green, gt; Walter Page, b; Jo Jones, d; Jimmy Rushing, vcl. (C&R = Call and Response)

FIGURE 6.APP. Oleg: *detailed transcription of 1:01. to 1:32.*

(Two players per octave stems down, two stems up = 8)

8 10-key metallophones (4 pemade and 4 kantilan one 8ve higher)

Row of tuned gongs (upper 8ve) (reyong)

Row of tuned gongs (lower 8ve) (reyong)

Bamboo flutes (suling)
(flute notation is approximate.)

Lead metallophone (ugal)

2 high mid-range metallophones (penyachah)

2 mid-range metallophones (calung)

2 bass metallophones (jegogan)

High drum (kendang lanang) and low drum (kendang wadon)
Drum key: ● = pitched r.h. stroke; ◐ = semi-pitched r.h. stroke; x = unpitched l.h. stroke

Small cymbals (ceng-ceng)

Gongs (kempli: time keeper; gong: bass; kempur: mid-range; kemong: high)

Beat Number: (16) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

rest of the world's music, to finally be rid of any assumption that its temporality is uniquely set apart.

People all over are preoccupied in wildly varying degrees by the contradictory desires to both fortify and transcend their identities, which music helps equally to define and to destabilize. One thing is clear: musics themselves, steered by human actors, now connect more rapidly and frequently and across greater distances and circumstances than before, and “culture” is by no means the primary force of attraction in all cases. It could be mere accessibility, taste, the internet, individual imagination or creativity, or any of a million factors that confront us with opportunities and pathways for refreshment. I am far from the first to note that this laboratory is music's destiny for the foreseeable future, just as it is humanity's.

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