

Ki Mantle Hood

The *Rasa* of Sound

All music theory is ethnic. The music theories of the mysterious East are sometimes regarded as poetic, symbolic, and mystical in their descriptions of musical practice. In the West, theorists take pride in objective descriptions of musical practice.

I want to quash that colonial description of the East, and question a myopic regard for music in the West. Non-western music theories familiar to me relate to the musical essence, the *rasa* (juice, sap, marrow, roots) of musical practice. Western music theory is concentrated on the technicalities of musical practice. I want to offer a new perspective, one that corrects the misunderstanding of the East and expands the horizons of the West.

It is tempting to shrug and settle for the 19th century bromide: "East is East, and West is West." I have one difficulty with such retreats: music is music, East or West.

In describing the technical skill of Bach can the music theorist or musicologist account for the superior generative power of Bach fugue subjects, compared with those of his contemporaries? You've heard the phrase "they simply work better"? Of course unless one is capable of writing good fugues, the validity of the claim can't be tested.

In the same way, arguments of Renaissance specialists in the compositions of Palestrina and his predecessors will not yield an understanding of the generative power of borrowed Medieval chants – borrowed down through the ages up to modern times. And a cantus firmus sometimes consists of not many more notes than a Bach fugue subject.

Might not medieval theory, re-examined, offer a foundation for understanding the power of both the cantus firmus and the fugue subject?

To simplify terminology I'll refer to the music theories of Asia as "Eastern theories", with the understanding that there are many culturally determined differences among them; and refer to the music theories of the European tradition of music as "Western theories", acknowledging the degrees of difference among them.

I want to select a few examples of Eastern theory that show musical accommodation as the basis of an aesthetic; we'll also look at evidence that Western theory is unaware of or chooses to ignore the fact that some kinds of musical accommodation in Western music even exist.

A trend during the last 100 years in the West has gradually led away from musical refinements. The art of improvisation in the European tradition has almost disappeared. There has been a total shift to a constant vibrato in singing (*belcanto*), rather than the Baroque practice of vibrato as an ornament. The piano concerto accommodates two different tuning systems. Even some operatic sopranos can't seem to adjust to orchestral intonation, after being coached with piano accompaniment. Are Western musicians and audiences becoming less and less sensitive to the refinements of musical sound? Are music theorists?

Western theorists ignore the kind of gross pitch practices that would not be tolerated among Eastern musicians. Something as basic as tuning system among Eastern theories will be used to illustrate the need for Western critics to find other terms than "intuitive", "subjective", "metaphorical", applied to Eastern theory unless, of course, they are willing to apply those same terms to some of the examples I want to provide from the European tradition of music.

Finally I'll suggest a fresh perspective on an expanded Western music theory, not by relinquishing present conceptions but by embedding them in some lessons learned from the spirit of Eastern and medieval treatises.

The subject of inquiry long ago in my dissertation was modal practice (Javanese *patet*), at that time, not understood by Western scholars. At the end of Chapter II I quoted several brief definitions supplied by Javanese theorists:

"R. M. Jayadipura: '*patet is the couch or bed of a melody.*' Jakub and Wignyarumeksa: '*the patet serves to allow the gending to sit down (nglungguhake).*' Suryaputra: '*patet is the harmonic relation between the pitch of a piece of music and the vibrations of the atmosphere at certain moments of the day or night.*' R. M. Sarwaka: '*the distinction between a given patet and another one is based upon a difference in chengkok (melody or melodic line).*' Sulardi: '*what is called patet is really preluding (grambyanganing) on an instrument according to certain rules, from which the nature of the compositions to be performed shall become evident.*' Sastrasuwignya: '*by patet is meant the singing of the dalang [puppeteer] to the accompaniment of the rebab, gender, gambang, suling, kendang and the gong.*'¹

I opened Chapter III with a quotation from Jaap Kunst: '*We have here, as in so many other cases, an intuitive not an intellectual knowledge; a good niyaga [professional musician] from the Principalities [royal courts of Central Java] immediately distinguishes one patet from another, without ever making a mistake: he is, however, incapable of explaining how or why he does so.*'²

After reading my dissertation, anyone with hands-on experience in the performance of a Javanese gamelan orchestra could readily understand the meaning of each definition given above. The key here is "hands-on" participation. Turning to Western music to make the point, not only writing but also singing and/or performing instrumentally a good fugue is essential to understanding why Bach's fugue subjects "work better".

To bring us closer to the meaning of so-called "intuitive knowledge" of the East we'll look at the West for a form of extremely keen musical perception operating in something as basic as its tuning system. It has a counterpart among Eastern theorists.

¹ Mantle Hood: *The Nuclear Theme as a Determinant of Patet in Japanese Music*, Groningen 1954, pp. 15-16.

² Jaap Kunst: *Music in Java*, (2nd ed.), The Hague 1949, vol. I, p. 72.

Unless Western theorists want to endorse the term for their own tuning system, I believe "intuitive knowledge" is the wrong term for both.

I'm referring to the art of voicing an instrument in the West. Does voicing exist in the East? Oh, yes! even voicing a whole gamelan orchestra in Bali! We'll consider illustrations. But first, one more point about Asian theorists:

In this early study of Javanese mode I was even able to borrow a term, "enemy tone", heard in a lecture about *rāga* by a theorist from another Asian culture.³ It fit precisely the unique function of one tone in each of the three modes of the five-tone *slendro* tuning system and one or two tones in the four modes of seven-tone *pelog*. The behavior of this tone had puzzled Javanese theorists for many years.⁴

I had become quite familiar with the troublesome behavior of that tone in the course of my research and as a performer of gamelan music, so that it was easy for me to understand the Indian theorist's metaphorical references, like "King", "Prime Minister", "enemy to be avoided", "captured", etc.

A reference to *Grove's Dictionary* (6th ed.)⁵ furnishes a definition of "voicing" Western musical instruments applied to a piano or a woodwind, e.g. a clarinet. Two anecdotes demonstrate the inadequacy of Western (therefore, "ethnic") music theory.

During World War II, knowing I would be called up for the Army Infantry soon, I sold a choice piece of land with the intention of buying a Steinway grand piano. In the best romantic tradition, I told myself, 'I'll have something to come home to (from the War).' The war effort had commandeered all the wood for Steinway sounding boards to make PT boats, so that it was impossible to buy a new instrument.

I went to the Steinway distributor in Los Angeles, where they had on hand about 300 beautiful instruments of all sizes. I told the clerk I was looking for a grand no smaller than 5'10½" and no larger than 6'4", smaller being too small in sound, larger being beyond the cash on hand from the sale of my land.

After more than two hours, I had examined 75 or 80 instruments in that range. Embarrassed I went up to the clerk again and explained apologetically that I hadn't found what I was looking for. His look said I hadn't been serious in the first place.

As I was leaving the store, I saw in the large display window facing the busy traffic of Los Angeles, another Steinway grand, 5'10½" in size. I went back inside the store, summoned enough courage to face the clerk once again, and said, "There's one in the window I didn't try."

His answer was almost curt: "Take your shoes off!"

³ A sociologist, Professor D. P. Mukerji of Lucknow, India, in the course of a general definition of *rāga*.

⁴ An oral communication from Java's leading theorist, Pak Sindoesawarno who thanked me for supplying the term "enemy tone", which described the behavior of one or two tones in each pathet (March, 1957). I explained that the credit went to Professor Mukerji, who was simply describing the Indian tone in each *rāga* that followed the same behavior I had been observing in Javanese gending. Incidentally the concepts of "rāga" and "pathet", in spite of several commonalities, are very different from one another.

⁵ See further, *New Grove*, 1980, Vol. 4, pp. 431-432; Vol. 20, p. 66.

Inside the display area I sat at the Steinway, ran a few arpeggios, played a few chords, got up and said, "I'll take it! How much is it?"

This time he took his shoes off, entered the window, and, for the first time, smiled. "Do you know what you've selected? This is a Buriofsky!"

He came to the piano keyboard, depressed the keys next to the top key, and pointed to the name inscribed in pencil. "Buriofsky is Steinway's best voicer in all of Germany." Then he explained that if a voicer was truly happy with his final result, he autographed the side of the top or bottom key of the keyboard. If the result was merely satisfactory, he sometimes used a stamp. If there was no name on the top or bottom key, the less said the better.

For the next five or six years, I secretly examined the top and bottom keys of every fine grand piano I saw, if I could do so discretely. Western theorists might want to try this kind of musical detective work; then test their ears by recognizing excellence in voicing.

I offer the story not to exalt the reputation of a voicer, not to point out that no two Steinways sound alike (a fact instrumental performers in the West know very well), but to ask an innocent question: how do you account for the genius of a Buriofsky? Intuition? Is that the secret to Bach's fugue subjects? To the composers of plainchant? Must we borrow terms applied to Asian theory?

On public television, one evening in 1996, I caught a documentary devoted to the gradual thinning of the African forests where the *mpingo* (a species of ebony) is found. Under the name "grenadillo wood" it is used to make fine clarinets. Part of the video showed a voicer testing an instrument. I knew that voicing a woodwind in all four registers (chalumeau, throat, clarinet, extreme) is done by minute adjustments in the size of the tone holes of the clarinet and by a process of "fraising" or undercutting.⁶ But I was genuinely surprised that he was not satisfied with the sound until he had attached the fourth different bell to the end of the instrument, something I had never realized was critical to its sound, even though I'm a clarinetist.

Any instrumentalist will recall that a clerk in a fine music store always offers a selection of several "identical" instruments for you to try, to determine "which one you like best". Voicing.

To my knowledge, there is no description in music theory that accounts for this "mystery". A piano is voiced by making needle-like penetrations of the sides (usually not the striking surface) of the felt hammers. Sometimes a heated iron is used to create a brighter timbre and better balance between the densities of the felt, inside and outside the hammer.⁷

But what are the laws governing adjustment? Is there a theory? Are the processes inside the head and ears of the voicer indeed "intuitive"?

Is the finest quality of sound in Western music to be accounted for in terms associated with Asian theories? Or medieval treatises, which are often dismissed as

⁶ *New Grove*, Vol. 4, pp. 431-432.

⁷ *New Grove*, Vol. 20, p. 66.

“speculative music theory”? Is this noetic apprehension? Or can the art of the voicer be cultivated?

Another illustration of the ethnicity of music theory.

Several years ago (1988), I acquired an unique Balinese gamelan Semar Pegulingan. It was constructed in 1982, and, before it left Bali, the club performing on it had released two CDs. It is famous in Bali for two reasons: 1. it is truly unique and represents a transitional gamelan between an old style (the seven-tone *pelog* melodic instruments are limited to seven consecutive bronze keys) and a new style (my melodic instruments have been extended to 11 consecutive keys, whereas 20 copies of Pinara Pitu have 12, seven consecutive, 5 not consecutive keys); and 2., it was created by Dr. I Made Bandem⁸ and Bali's Buriofsky, its most famous tuner-voicer, Pak I Wayan Beratha of Den Pasar.

Measurement with a Strobococonn of every bronze bar and gong on its arrival in the United States yielded what appeared to be a paradox in Balinese tuning. It was the most “in-tune” gamelan I had ever measured, i. e., in tune with itself.⁹ On the other hand, the scheme of the tuning system defied rational explanation. No two octaves had the same structure (sequence of large and small intervals) and, of course, there were no perfect octaves. Although the tuning system was enigmatic, it was certain that the master tuner-voicer Pak Beratha wanted it that way.

It was not until last year that I learned the secret of *Genta Pinara Pitu's* tuning system, a tradition always followed by Pak Beratha. I learned further that he considered the tuning of *Genta Pinara Pitu* the finest he had ever accomplished with a Gamelan Semar Pegulingan (a Buriofsky indeed!).

I discovered that after the gamelan had been tuned,¹⁰ he then adjusted it according to the concept of “angkep-angkepan”, which means “a coming together”. That is, after hearing the completed gamelan played as a total ensemble, he made further fine adjustments in tuning, the process of voicing,¹¹ until he was satisfied with the sound.¹²

Now what am I to say? Pak Beratha, Buriofsky, Bach, and creators of plainchant all have some kind of extrasensory perception? intuition? Or, can the ethnic theorists of each culture aspire to describe the process at some future date?

Earlier, I summarized briefly some of the losses in Western musical practice: a gross accommodation of vibrato, the vanishing art of improvisation, an unconscious acceptance of the clash of using two different tuning systems simultaneously, the inability to shift from one tuning to another. Each of these denotes a decreasing sensi-

⁸ Director of S.T.S.I., Bali's advanced academy of performing and creative arts.

⁹ Corresponding bronze keys representing the same pitch were often identical, sometimes a half-to-one cent different, never greater than two cents different.

¹⁰ A carefully tuned bamboo stick (*petuding*) is made by the tuner for each pitch of the four octaves of the gamelan.

¹¹ Removing metal from one of two possible locations on metal bars and cold hammering gong kettles and gongs.

¹² An account of the complete study is given under the title “Angkep-angkepan”, by Ki Mantle Hood: *Ndroje balendro: Musiques, terrains et disciplines, textes offerts à Simha Arom*, ed. by Vincent Dehoux et al., Paris 1995, pp. 323-339.

tivity on the part of the listener and performer, audience and theorist alike. Is the great tradition of European music gradually according less importance to the actual sound of music? including the very essence of music, the quality of sound itself?

It has always been assumed that the propounding of Western music theory followed musical practice, usually with a time lag. If that's true, the apparent acceleration of an indifference to the refinements of musical sound is alarming. But perhaps Western theory has caught up with or is getting ahead of musical practice.

What lessons might be derived from this brief look at Eastern and Western theories? Can each learn something from the other?

As I suggested in my opening statements, Eastern theorists are concerned with the essence of music, the *rasa*, the roots, the sap, the juice; Western theorists, on the other hand, maintain an almost fierce "objectivity" in explaining musical practice.¹³

Of critical significance is the dependence of Western music theory on "language". Charles Seeger showed us repeatedly that language and music are two different modes of discourse with referents that may be the same, similar, or quite different.

In my initial determination to learn from Eastern theorists I discovered that dance was often inseparable from the tenets of their discourse. If I wanted to understand their teachings, I had to study dance, which I did by taking lessons four or five times a week for almost two years in Java.

A reminder of the importance of dance in understanding music theory is as recent as guiding the Ph.D. of Dr. I Wayan Rai.¹⁴ Early in the study it became evident that a true understanding of modal practice in Balinese music¹⁵ must include an understanding of dance requirements relating to the literature of Panji, the Culture Hero, a dance drama accompanied by either gamelan gambuh or gamelan Semar Pegulingan.

The importance of identifying particular pitches of the tuning system to designate hero or heroine, refined or coarse, meditative or belligerent scenes was evident from the beginning of the study. Without a knowledge of this essential relationship between music and dance, the modal practice of the most seminal of Balinese tunings – seven-tone *pelog* of gamelan gambuh and gamelan Semar Pegulingan – would remain a mystery.

In the course of our work together on his doctoral research I Wayan Rai told me, at one point, that he had not understood the phrase structure of a particular piece, until he had learned the drumming, could play an improvised melodic elaboration of the principle melody, and learned to dance the male role featured

¹³ I used to charge my students in ethnomusicology to be as "objective in their subjectivity as possible". Music is an emotional art; speaking about it is an analytical art. If the emotional element of music is lacking in attempts to account for musical practice, I believe the venue of speech tends to disconnect from music itself.

¹⁴ After four years, completed and awarded on May 22, 1996.

¹⁵ Not until 1990 was the first attempt made to identify the *patutan* (modes) of Balinese music. Prior to that, that most knowledgeable composer-scholar Colin McPhee believed the Balinese did not recognize the practice of mode. See further, Mantle Hood: *Balinese Gamelan Semar Pegulingan, the Modal System*, Progress Reports in Ethnomusicology, Vol. 3, No. 2, 1990.

in the dance drama (the *Panji*-literature) being accompanied. Only then did he understand the phrase structure of the piece.¹⁶

I urge Western music theorists to make diligent efforts to understand the interrelated requirements of non-Western music and dance. Not long ago in Western culture, they were inextricably bound. Over the years of studying the rigors of Javanese and Balinese dance, I discovered that the two subjects are truly inseparable.

Music in the West suffered a loss, when it became divorced from formalized human movement, dance. Whether this natural coupling can once again become the concern of Western music theorists, I cannot forecast. But human movement is inextricably related to music. The two are separated, I believe, at the peril of reliable music theory.

To widen the horizons of the Western music theorist I recommend another look at medieval treatises, as well as the work of music theorists of the non-Western world: e. g., in Bali, the late I Gusti Putu Made Geria, I Nyoman Rembang, I Wayang Beratha, Dr. I Made Bandem. Their theories show an indigenous grasp of the *rasa* of Balinese mode.

I've touched on some of the practices of Asian music that hold lessons for the Western theorists. Guiding Asians toward M.A.s and Ph.D.s, I know they've learned much from Western theorists. My plea is for an open-minded reversal of that trend.

My life has been a continuous involvement with music, as a listener, a performer, a composer, and, yes, an unwilling theorist. As the latter, the reluctant theorist, let me stress finally the absolutely essential need for the theorist to be a performer and a listener, if possible, a composer – openly, emotionally, which is the sine qua non of being involved with music. Participation, hands-on.

If you can play it, sing it, and dance to it, you've earned the right to talk about music.

¹⁶ How many Western musicians (composers) can improvise on a melodic instrument, drum, and dance?