TOWARDS A MORE OPEN APPROACH TO THE HISTORY OF JAVANESE MUSIC

Marty Hatch

We are at a point now where many students of Java's culture regard the history of present-day musical activities as irrelevant, either because they believe that history to be indecipherable, or because the musical activities themselves are considered to need and be worthy of more consideration than their history. Yet the materials available for a general discussion of the Javanese past from the ninth century A.D. on, though perhaps not as plentiful as those of Western cultures, are substantial, and a sufficient proportion of them relate to the antecedents of what is regarded as music by Western and Javanese musicologists to justify a large amount of musicological--music history--research. It seems to me that what we need is a reformulation of our ideas on the history of Javanese music.

It is true that the contemporary Javanese activities which we call music are worthy of description. It is also true that some of the activities we prize are, or are in danger of, no longer being practiced in the ways which we value. We feel that they should be preserved or returned to their previous state. But if we do not understand the meaning of those activities in the Javanese past, we may misrepresent their present-day musical meaning as well. In fact, we may even describe as music some aspect of an activity, or an entire activity, which better belongs in another category of cultural endeavor.

It is necessary, then, to consider the words we use and their translatability from one language or culture to another, for understanding needs to be informed by a knowledge of the function of words in the cultures on both sides of the translation. Briefly, there is no word in Javanese which is equivalent to the term "music" as it is colloquially understood in the English language. Even in English, the constituent elements of the activities which are grouped together under the heading music vary in relation to the historical time and cultural setting, but it is possible to list several of their basic characteristics:

1. Music is sound made by human beings: the application of the term to inanimate or other than human sound-producers is derived from its basic definition in terms of human beings.
2. The sound of music is organized in terms of pitch in time, in a way which reflects concentration of organizational efforts on the elements of pitch in time, as opposed to other elements.
3. Many speakers of Western languages associate music with sounds produced by human beings on instruments, rather than with their voices, making a differentiation, then, between song,

> which is the modulation of pitch in time by the human voice, and music, which is the modulation of pitch in time using material instruments. Most Westerners, however, would include both song and instrumental play under the general heading music.[1]

The English term music, and its cognate in Dutch, *musiek*, have been adopted into the Indonesian and Javanese languages as the word *musik*. This term, however, is applied only to Western musics. Although often embracing what Westerners would call classical, folk or popular music, the word musik is sometimes used specifically for Western art musics, while popular musics from the West are referred to only by the name "*pop*." This division may reflect an attempt to make "pop" sounds or sound-making activities as much an Indonesian phenomenon as they are a Western one--that is, to disassociate them from the foreign status that is implied by the term musik. To my knowledge, the only Indonesian institution which has the word musik as a part of its name is the Akademi Musik Indonesia (Indonesian [State] Academy of Music) in Yogyakarta. The curriculum at that academy consists entirely of Western music compositions and instrumental techniques.

The closest Indonesian approximation to the English term music is the Javanese word *karawitan*, which over the past fifty years has come to be used as a general heading for many Javanese activities of play with pitch in time. The word was probably first used in this sense principally by administrators, *nyaga* (the Javanese term for court instrumental musicians) who were teachers, and students connected with the conservatories, academies and courts of central Java. *Karawitan* (or *kerawitan*) consists of the Javanese *rawit*--meaning refined, detailed, very fine--and the affixes ka- and -an. Rawit, combined with several other prefixes, has served for at least the past two centuries as the names for Surakarta nyaga of high standing.

The word has been used as a part of the name for the Indonesian national academy and conservatory, the Akademi Seni-Karawitan Indonesia (with the acronym Aski), and the Konservatori Karawitan in Surakarta (with the acronym Kokar, or more recently, Konser). Used in this way the term has all the ring of an analogue for "fine art" as those words are applied to many Western schools where music, painting, architecture, sculpture or engraving might be learned. Yet, in Java the

---

[1]The first three meanings of the word "music" as listed in *The Compact Edition of the Oxford English Dictionary* (Glasgow, New York: Oxford University Press, 1971), 1, pp. 1880-81, are:

1. That one of the fine arts which is connected with the combination of sounds with a view to beauty of form and the expression of emotion. . . . The word is often used with special reference to the executive branch, and to instrumental execution rather than vocal. . . .
2. Sounds in melodic or harmonic combinations, whether produced by voice or instruments. . . .
3. Sounds in melodic or harmonic combination as devised by a composer. . . .

The first and third of these definitions clearly reveal the existence of a bias toward "art music" conceptions of music that I am not ready to accept as a part of the Western colloquial understanding of the word. A devotee of the "fine art" of music in the West who "catches the sounds" of a "popular" music coming over the radio might refuse to apply to those sounds some of the terms he uses to describe the music he loves, but he will still recognize the status of what he hears as music.

term has, I believe, implications clearly related to the word *halus*,[2] which is also frequently translated into English as "refined." Such a translation does not convey the Javanese meaning of either of these words, because "refined" does not have the implications of power in English that halus and karawitan have in Javanese.

For most of the Javanese musicians who use the term, karawitan refers to ways of organizing pitches (usually referred to as *laras slendro* and laras *pelog*), and some groupings of instruments, techniques of playing and repertories performed primarily in the court settings or elite circles connected with the Surakarta and Yogyakarta courts which existed at the time the term emerged as a conceptual heading at the beginning of the twentieth century.[3] Some who use the term karawitan exclude singing from under their definition of its contents, except for singing which is performed together with gamelan. Most other musicians differentiate between vocal karawitan, which they call *seni-suara* (the "art" of sound) or *tembang*, and instrumental karawitan, which they call [seni]-gamelan or *gendhing*.[4] Tembang is now used almost exclusively to refer to certain ways of singing unaccompanied songs. It has a residual meaning in modern Javanese however, which is the equivalent of *tabuh* (beater mallet), and in Old Javanese this meaning is primary. This meaning "mallet or beater stick" tempts a student of history to try to determine ways in which instruments accompanied singing in the

---

[2]See Benedict Anderson, "The Idea of Power in Javanese Culture," in *Culture and Politics in Indonesia*, ed. Claire Holt (Ithaca: Cornell University Press, 1972), pp. 38-43, for a clear and concise presentation of the meaning of halus in Javanese traditional culture. In my discussion of karawitan and nyaga it is important to keep in mind the points that Anderson makes concerning who can attain halus-ness, how it is attained, and its relationship to the Javanese idea of Power. Even though halus-ness is the hallmark of the *priyayi* (administrators), it is an ideal of behavior for Javanese other than those who serve in priyayi roles; it is attained through asceticism and spiritual discipline; and its ethics are the ethics of Power (ibid., p. 43). My treatment of the meaning of karawitan and other activities of sound-making in Java rests heavily on Anderson's insights into Javanese Power politics in the present and past. His essay can serve as a basis for understanding many otherwise puzzling aspects of the Javanese meaning of these activities.

[3]Most of the information for this section, and others which have to do with present-day performance practice, institutions, and the lives of musicians is derived from interviews with Javanese musicians conducted by the author from February 1970 to March 1971 mainly in Surakarta. The definition of *laras slendro* and *pelog* in present-day practice and in history will be the subject of some discussion below.

The composition of ensembles, techniques of playing, terminology, definitions of terminology, and repertories for ensemble practice differ from conservatory to conservatory and academy to academy. These differences represent more than slight inflections of the same basic practices, in the sense that most of them are intended to have more meaning than the words "subtle inflections" imply to us. Even outside karawitan circles differentiations in these areas are made by individuals who come from one of the four geographical regions which were allocated, in times past, to the courts of Surakarta and Yogyakarta (see below, p. 141).

[4]*Gendhing* usually refers to gamelan sound-patterns or compositions, though the meaning varies from piece to piece, in the sense that some pieces are clearly more "compositions" than others, while other pieces are ensemble-specific patterns of play with instrumental timbre. See R. L. Martopangrawit, *Pengetahuan Karawitan*, 2 vols. (Surakarta: Akademi Seni-Karawitan Indonesia, 1972), 1, p. 2, and Ki Sindusawarno, *Ilmu-Karawitan* (Surakarta: Konservatori Karawitan Indonesia, 1955 [mimeo]), p. 1.

Javanese past, which instruments did the accompanying, how large were the accompanying ensembles, and when songs were accompanied. The word gendhing presents similar ambiguities: the earlier the term occurs in literary evidence, the more it is associated with song and song melody.

Even if karawitan is limited to "sounds made by human beings on instruments," this is not as viable a conceptual category in Java as it may be in the West, for sounds are functions of the contexts in which they occur.[5] This is one reason why attempts to determine an elaborate and well-founded theory and history of music in Java are inaccurate if they do not take into account the cycles of development which present-day musical activities have undergone and the different contexts in which these activities were found in the past.

In his encyclopaedic treatment of the early history of Javanese musical instruments entitled *Hindu-Javanese Musical Instruments*, Jaap Kunst proposed a division between two types of Javanese instrumental ensembles that could apply at least before the fourteenth century. "The large orchestras in the princely palaces . . . of our day which in the last three centuries have played such an indispensable part in ceremonies and festivities, appear to have had their origin in the late Hindu period through what could perhaps be called a marriage of the gentle 'feminine' instruments of the chamber orchestra (*gambang, gender, rebab, suling*, etc.) and the 'masculine' war music (*gongs, bonangs*, drums, etc.)."[6] In his other major work devoted to Javanese music, *Music in Java*, Kunst described the latter group more vividly and listed similar ensembles that still existed in Indonesia in his time. The masculine ensemble was "intended for male use, and consisting of large, loud-sounding instruments, such as drums, cymbals . . . as well as different kinds of gongs, either suspended or placed flat, all of which were probably played in the open air, in the soldiers' camps, by way of war-music, and to introduce and accompany (temple-) festivities. This kind of 'masculine' orchestras are [*sic*] still to be found in different parts of the archipelago. . . . The most ancient of the Principality orchestras still in existence (the gamelan Munggang and Kodhok ngorek . . .) are, as a matter of fact, not much more than this either."[7]

In several such "ancient" ensembles the melodic variety which is possible on the instruments alone is considerably limited, and consists of only one to three pitches. The attention of the listener is focused on the multiplicity of timbres in the various instruments of the ensemble. Timbre is a configuration of sound waves. If each instrument in a group produces a different configuration of waves, then the combination of all the instruments sounding together will produce a variegated sheet of sound. I will refer to ensembles which emphasize this

---

[5]The closest that one comes to a general term that means sound in the Indonesian languages is *suara*. That term in many instances refers specifically to the sounds made by human beings and in that capacity historically has great religious importance. The sound of the ruler's voice, for example, is an indication of the potency of that ruler.

[6]Jaap Kunst, *Hindu-Javanese Musical Instruments* (The Hague: Nijhoff, 1968), p. 6.

[7]Jaap Kunst, *Music in Java: Its History, Its Theory and Its Technique*, 3rd ed., ed. E. Heins (The Hague: Nijhoff, 1973), pp. 113-14.

sound as shimmering-sound ensembles. The attention of the listener is drawn to the variegated sheet rather than to the single sound of one instrument. Attempts to understand the meaning of the sound of these ensembles should therefore focus more on the multiplicity of timbres, than the melodic--pitch contour--motion. A history of Javanese instrumental sound, then, would not involve a theory of musical evolution from the two- or three-tone "melodies" played on these ensembles to seven-tone melodies. Such an evolutionary theory would overlook the different function of these instrumental ensembles and the possibility that vocal tunings--and instruments which were adapted to those tunings --with seven or more tones from which the pitch contour of a melody can be chosen, coexisted in the same cultural world as instrumental ensembles which had more limited numbers of pitches or no clear focus on pitches at all.[8]

---

[8]One of the few attempts by Javanese to describe the historical antecedents of karawitan is that of Raden Tumenggung Warsodiningrat (*Wedda Pradangga* [Surakarta: Akademi Seni Karawitan, 1972]). At the time of his death in 1975, at the age of eighty-seven, Warsodiningrat was the highest ranking Surakarta kraton musician, and when I was in Surakarta, his colleagues always referred to him as the most knowledgeable kraton musician in the areas of history and theory of those court practices. His book, compiled from information recorded in the *Pustaka Raja Purwa* and from interviews he conducted with nyaga, and other servants and dignitaries of the court, discusses the development of many of the twentieth-century Surakarta ensembles. Two-thirds of the book covers the period from 1646 to the middle of the twentieth century. Several interesting points emerge, however, from Warsodiningrat's treatment of the history of karawitan before the seventeenth century. According to this, the first instrument which performs a function analogous to that of the gong in some present-day gamelan ensembles is made from bamboo--a large end-blown flute. This instrument underscores certain places in the singing of a long poem (ibid., p. 3).

Very early in his history, Warsodiningrat makes a division between instrumental ensembles which accompany singing with or without dancing, and ensembles which function as a part of processions of dignitaries, accompany war activities or serve as signals. The former group is, at first, limited to instruments which do not seem to play a melody, but which also are not rich in timbre (complexity of overtones). These ensembles are small, with at the most five or six instruments, and with one or two basic (in terms of vibrations per second) pitches on each instrument. The latter group consists of larger ensembles--up to ten instruments--with many kinds of drums and instruments which are not melody-centered, and which are rich in timbre (ibid., pp. 1-5).

When instrumental tuning systems first emerge, in Warsodiningrat's account, they do as a result of the introduction of fixed-pitch slab or bar sets into the ongoing traditions of song; and the fixed-pitch instruments are tuned in such a way as to agree with vocal tunings. This process is described by the terms *balero* and *embat*. Warsodiningrat describes *balero* (sometimes *blero* in the literature, and now usually defined in English as out-of-tune) as the condition where an instrument or an ensemble is made in such a way that it does not agree with vocal tunings. The process of making instruments agree with vocal tunings--which is achieved through compromise of the various vocal tunings into one instrumental tuning--is called embat (ibid., pp. 8-9).

Among the instruments which Warsodiningrat lists as the earliest antecedents of karawitan ensembles are the bamboo "gong" (see above) and *angklung*, the *slompret*, and the slab gong (*kemodhong*). Three of the four aforementioned instruments are standard accompaniment for the *reyog* and *jatilan* rituals. These sound-making aspects of rituals are commonly regarded as "folk" music by musicologists who comment upon them.

All of the groupings of instruments which are considered to be a part of karawitan are now usually classed under the general heading *gamelan*. The origins of this word are still vague. *Gamel* in Old Javanese appears to have meant "handle/hold/seize"[9] and in modern Javanese has the primary meaning of stable attendant/groom (see below). Over a period of several centuries, gamelan came to be used as a substitute for the Old Javanese terms *tabuhan, tatabuhan, tabeh-tabehan* and other variants of the terms *tabuh* and *tabeh* (beater, mallet, club) as a description for sound-making activities which involved the use of beater-sticks or mallets.[10]

Particular instrumental groups will always have an adjective tacked on to the word gamelan which will tell something about the size of the particular ensemble, the function which the ensemble plays, or the instrument which plays a definitive role in the ensemble. Some of the names for these karawitan ensembles are: *gamelan lengkap* (literally, complete gamelan), *gamelan bonangan* (an ensemble in which the bonang plays a definitive role), *gamelan carabalen* (literally, the gamelan of the way/manner of returning/coming home), *gamelan gadhon* (defined now as an "incomplete gamelan," often analogized with the Western chamber ensemble), and *gamelan munggang* (or *monggang*) which appears to have no literal meaning now.

Ambiguities are involved in classifying all of the above-named ensembles under the same heading--gamelan--let alone under the general category of activity which is translated as "fine art." First, the term gamelan has only recently been used to describe most of the above-named ensembles. Even now, most are still usually referred to by only the adjectival part of the name--which, therefore, attains the status of a noun. Yet all of these nouns are further qualified by the proper names which are given to each ensemble--in the way that proper names are given to all Javanese ensembles.[11] The existence of these proper names, and their use to identify individual sound-making capabilities, implies to me an older layer of meaning for instrumental ensembles. In this layer, the *sound* of the individual ensemble (which was the main component involved in assigning its name) was appropriate to the place and time where and when the ensemble was played, and to the ruler in whose service it was played. In the case of several of the above-named ensembles, we can go even further and say that the "piece" the ensemble played was also context-specific.

A second layer of ambiguity in grouping all the karawitan ensembles under the same heading becomes evident when we consider each of the ensembles separately. The qualifying adjectives--hence also the ensembles they describe--have specific associations with functions in the court,

---

[9]Cf. J. F. C. Gericke and T. Roorda, *Javaansch-Nederlandsch Handwoordenboek* (Amsterdam/Leiden: Muller, Brill, 1901), 2, p. 618.

[10]In *Hindu-Javanese*, Kunst has compiled a list of all the instances where these terms are found in Javanese literature and inscriptions prior to the fifteenth century, and he made a preliminary attempt to correlate the words with ensembles or instruments on bas-reliefs from the period in question. Much more work can be done in this area, with a closer consideration of the context of the word in the particular literary work, and in the picture of the culture at the time the word was used.

[11]See, for instance, Kunst, *Music in Java*, pp. 253 ff., for a discussion of the relationship of proper names to individual ensembles.

or with functions which the court drew into its circle from outside its walls. Carabalen was formerly used to accompany the return of soldiers from the battlefield. One of the two ensembles known as kodhok ngorek still plays something like the role of a signal at court festivals and public ceremonies.[12] Monggang are gamelan which play processionals and for ceremonies, and one such ensemble was formerly used to accompany war games in the kraton square. Each of the other ensembles listed above performed differing functions, and in order to develop an accurate picture of its meaning and role one must take into account both its historical antecedents and the past and present function it plays.

If we view Javanese music as limited to what is now conserved in the conservatory there is the danger of assuming that the music exists as an autonomous entity within the culture--that is, as a body of activity which is monochromatic, in the sense that it can be grouped under the conceptual heading of music. But the activities grouped thereunder are monochromatic only in the sense that they are what Western science and Javanese scientifically-trained musicologists look for when they approach problems of the history and the theory of music.

Despite the recent attempts by music theorists and musicians to group tembang with the various gamelan activities under the heading karawitan, song still seems to exist in a category all its own. In various regions of Java evidence of singing with instrumental accompaniment by ensembles of many different compositions dates from the ninth century. Some of the accompanying ensembles consist of instruments with little apparent melodic pitch function, while others contain instruments more capable of melody. There is no clear indication of the historical evolution of these ensembles and, in fact, instrumental accompaniment of song seems rather to have developed in cycles. Most contemporary musicians regard the vocal elements in gamelan lengkap to be additions occurring over the past hundred and fifty years. They give the name *tetembangan*--a recent coinage, but reminiscent of tatabuhan--to such practices, and thereby differentiate them from tembang, which they regard as unaccompanied song.

Efforts to incorporate a study of the many activities grouped under the heading tembang into the curricular offerings of the conservatories and academies had achieved only partial success by the early 1970s. There are, I believe, several reasons for this. In contrast with the impressions of karawitan ensembles, which are closely linked with the grand display of bronze and with instrument-making technological feats such as bronze gongs and slabs, evaluations of songs have not been so easy to materialize. Most Javanese singers still understand the power and meaning of their song without the need for material referents or technological developments. Also although gamelan ensembles have been the object of attention for musicologists and other Western visitors to Java over the past century, it has frequently been observed that Westerners are unable to enjoy the sound of Javanese singers. In fact, reflecting on the tastes of Westerners of his day, Kunst begins his treatment of tembang in *Music in Java* with a defense of its musicality: ". . . Most Europeans do not like Javanese singing, especially by females; but whoever has taken the trouble to settle down

---

[12]The literal meaning of the name kodhok ngorek is croaking frog. See ibid., p. 261, and Mantle Hood, "The Effect of Medieval Technology on Musical Style in the Orient," in *Selected Reports*, 1, 3 (1970), p. 158, for discussions of the association between frogs croaking and the depiction of frogs on bronze drums.

and listen to it with an unprejudiced mind and without allowing himself to be discouraged by an initial lack of appreciation, will find that this vocal music will gradually reveal to him unsuspected beauties."[13] Kunst, however, recognized other components of Javanese song than beauty. He saw the religious meaning--and power--of particular kinds of song, and described these aspects in the following terms: ". . . music is, originally, pure magic, 'incantation'; a song is nothing other than a magic formula in melody whose effect, however, will be the exact opposite of what is intended, if it is not performed perfectly truly and on the right pitch."[14]

Individual Javanese singers and gamelan players express different opinions about the status of tembang in Java. Some musicians may have reservations about the halus-ness of some tembang styles: Western vocal timbres seem to have made inroads into some Javanese perspectives on musical sound. Others seem to reflect a point of view that relegates tembang to a past system of social relationships which are not so evident in gamelan ensembles. Other musicians will refer to the verbal content of tembang--mythologies, teachings of Javanese ethics, prayers--in order to establish this point. Still others will refer to the antiquatedness of the functions of types of tembang in the past such as in correspondence or histories in poetry. These musicians will regard karawitan as still viable while tembang is not, because the sounds of instruments may be less concretely rooted in past practices. Another group of musicians will regard the same conditions as reasons for a different conclusion--that singing remains a group of individual functions with separate characteristics from those of individual gamelan, and that gamelan and tembang can be effective or not depending on the manner in which they are intended. For this group, tembang would be free-floating, not necessarily correlated with the possessions of the courts. The possibility that song was standardized and brought into the kraton orbit would still exist, but those standardized practices would not have been tied to material technology, and would thus stand unaided next to alternative expressions.

Here is one place where Kunst's perception of the power of song merges with that of the Javanese singer. Both know that singing has not the restrictions of material form that instrumental play has. As I will show below, Kunst went one way from this realization and some Javanese singers went the other.

* * *

Musical activity in the West is sometimes defined in terms of its cultural setting, although the description of it as music--an abstract category which transcends its context--is seldom if ever questioned. Rather than use a word other than music, Westerners will qualify the broad term by an adjective which denotes some aspect of the social context in which the sound takes place. Three of the most frequent of these qualifying adjectives are folk, art (concert or classical), and

---

[13]Kunst, *Music in Java*, p. 122.

[14]Ibid., p. 48. Kunst's "magic" is well-intended, I believe. He was entirely a defender of Javanese traditions against what he saw as European economic and cultural excesses and manipulations in Java.

popular.[15] Selection of the category for the musical activity depends on many factors, some broader and more readily evident than others. Generally speaking, however, Westerners differentiate between folk and art musics on the basis of an evaluation of the level of complexity of the musical activity. The aspects considered may be part of the sound (such as harmonies, instrumental or vocal timbres), or they may be part of the context in which the sound is transmitted (such as with or without the aid of notation, on or off a concert stage, by professional or nonprofessional performers, to inhabitants of cities or of rural areas, and so on). These are only a few of the many factors that are weighed before categories folk or art are applied to a sound-making activity in the West.[16]

Similarly, in musicological considerations of Java attempts have been made to divide traditional Javanese music into two arbitrary categories: folk and court (art or classical).[17] The immediate difficulties involved in such a differentiation become apparent when one attempts to define Javanese "court music" in the context of the lack of any single court culture there. During the period from the beginning of the Christian era up to about the mid-eighteenth century, the priestly (magical), educational (story-telling) and scribal crafts that became vocal music, and a complex of activities, including the aura-enhancing, awe-inspiring accompaniments that became instrumental music, were more appropriate to other aspects of life than those now described

---

[15]Despite recent attempts by Western musicologists to refine colloquial definitions of the meaning of these three categories, they continue to be used in a highly unsystematic way. All of Charles Seeger's writings that I have read deal, to a greater or lesser extent, with the problems involved in writing about play with pitch in time, and with definitions of terms used to describe sound-making activities. Seeger dealt with Western musics and languages in particular, because he studied and composed music from this area of the world, but his writings were directed toward describing Western musics in terms that could be used to understand the musics of other cultures in the world. See especially "The Music Compositional Process as a Function in a Nest of Functions and in Itself a Nest of Functions," in his *Studies in Musicology: 1935-1975* (Berkeley: University of California Press, 1977), pp. 139-67.

[16]The suggestions that John Blacking makes in his *How Musical is Man?* (Seattle: University of Washington Press, 1973) concerning the use of folk and art music categories still seem necessary for the work of most students of Western musics. Blacking proposed that "all music is folk music, in the sense that music cannot be transmitted or have meaning without associations between people. . . . The makers of 'art' music are not innately more sensitive or cleverer than 'folk' musicians: the structures of their music simply express . . . the numerically larger systems of interaction of folk in their societies, the consequences of a more extensive division of labor, and an accumulated technological tradition" (p. x).

[17]These considerations have been reflected in the pamphlet entitled *Cultural Policy in Indonesia,* prepared by the Directorate-General of Culture of the Ministry of Education and Culture of the Republic of Indonesia (Paris: UNESCO, 1973). The authors of the pamphlet divide Indonesian musics into two main types: karawitan and Western. "The first type includes traditional classical, traditional folk, and contemporary music. Classical and folk derive from princely courts and from the countryside respectively. . . . Prior to 1945, traditional music was largely limited to princely courts, and to important country ceremonies such as weddings and harvest festivals, or to temple and village religious ceremonies in Bali. The general public took little interest in its performance, and there were no facilities for popularizing it through theatres or on radio. . . ."

by the term "fine arts." Singing of poems, such as *kidung layang* and *babad* was not an activity as reserved for elite circles as it may have become in the late nineteenth and twentieth centuries. Singers and the instrumentalists who might have accompanied them were "minstrels," or wandering teachers, in the sense that they were not necessarily bound to courts but moved from center to center. They possessed magical power that enabled them to transform words into experience, through modulation of tone. Most of the instrumental sound-making activities that transpired in the courts were performed by functionaries in a category with soldiers and grooms. Only when the courts no longer required their full-time services in such capacities, did these functionaries, together with capable outsiders who had been drawn to the court center by the power of the ruler, turn their efforts to more grandiose or elaborate shows of finery and refinement.

With several or many foci of princely power throughout these periods, one must assume at least some differences among the activities which we now call music in each circle of princely power--in the style of the songs and instrumental play, the construction of instruments, and the composition of instrumental ensembles. One can also assume that, with the relative instability of kraton power these unique practices might become cultural rallying points in one geographical area or another, thus reinforcing diversity. Even if for a period one focus of power, through conquest, alliances or reputation, gained influence in a large area, individual vocal and instrumental practices and different instruments would certainly persist in each region, though there would probably be some synthesis of musical practices in the immediate vicinity of the kraton. In fact, there is considerable evidence that even in a period when one kraton became a powerful center for a large geographical area, that center might have tolerated, if not cultivated, regional variations in these aspects of culture. And with the rise and fall of foci of power, the materials of culture which any one court attracted would periodically diffuse out from the focus into the country and into another focus. There is even evidence from earliest history through to the present day that Javanese princes, whether their powers were waxing or waning, did not necessarily regard their role to be that of standardizers of cultural activities. The Javanese tolerance of diversity has been commented upon extensively,[18] and there is evidence that the power of a ruler was at least in part expressed by his ability to draw to his princely center diverse expressions of cultural practices from all around his realm. The farther away--and perhaps the more varied--the practices, the more powerful the ruler was seen to be.[19]

---

[18]Though the meaning of that "tolerance" should be understood in Javanese terms. Cf. Benedict Anderson's *Mythology and the Tolerance of the Javanese* (Ithaca: Cornell Modern Indonesia Project, 1965).

[19]See J. G. DeCasparis, *Indonesian Palaeography* (Leiden: Brill, 1975), for evidence that in Old Java up to and including the time of Majapahit, a princely center did not act to standardize script in regions under its political control. Contemporary regional variation in many areas of cultural activity is added evidence of the lack of standardization of practices in the past. Regional variation exists in bathik, language (oral and written), carving and clothing. See also Anderson, "The Idea of Power," p. 15, for an explanation of traditional Javanese notions of the ruler's ability to unify opposites in his being.

Present-day evidence of variety can be interpreted in the light of the historical factors described above. To this day, throughout Java and also in Bali, Western musicologists are "finding" instrumental ensembles, unique in composition, in "outlying areas," that is, areas far from what were the court centers at the time the musicologists' European ancestors first came to the island. Study of musical practices in eastern Java (conducted by Michael Crawford in 1970-71) has shown a remarkable variety in instruments, combinations of instruments and styles of playing.[20]

Jaap Kunst was similarly impressed with the wide variety of Sundanese ensembles and practices, and noted that in this sense Sundanese music was far more variegated than that of central Java. Kunst suggested that the difference was due to the more "primitive" nature of Sundanese culture--"communications may have been difficult in mountainous West Java, and . . . the princedoms that existed there in various periods were never very powerful."[21] But perhaps this assessment derived from Kunst's apparent equation of uniformity of practice in a geographical area with high cultural achievements of the people in that area. He remarked that "in contrast [to the music of Sunda] the music of Java proper showed a much more uniform pattern. There were complete bronze orchestras (apart from various bamboo instruments) and . . . a many-centuries-old history, and . . . a well-founded musical system and theory."[22] Yet, the activities which he regarded as the constituent elements of music in central Java at the time he observed them must have flowered, died, and flowered again but with different patterns and articulations, over the period since the ninth century; and as we have seen above, cultural standardization was not necessarily a measure of princely power.

The evidence of one particular flowering of these activities is preserved in the bas-reliefs on the magnificent architectural feats of the ninth and tenth centuries, the Barabudhur and the Prambanan. Kunst's list of the sound-making instruments found in these reliefs occupies two pages of *Music in Java,*[23] and much of *Hindu-Javanese Musical Instruments* attempts to connect this abundance of instruments with an even greater variety of names and descriptions of sound-making activities and instruments found in written records that date back to that time. Major obstacles to presenting a linear view of the development of the present-day bronze gamelan are presented when the sum of the evidence that these reliefs provide is tabulated. There are no gongs pictured on these reliefs; only two of the many instruments depicted there are clearly bar or slab percussion instruments and neither of these can be convincingly argued to be bronze; and few of the other instruments portrayed are presently used in central Java.

The assumption that in the middle of the tenth century, a center of Javanese court power arose in east Java is based in part on the fact that the literature which has come down to us from that time on has its locus in east Java. This is coupled with the fact that stone monuments dating from the mid-tenth to the mid-fifteenth centuries have not been found in central Java, but exist in east Java for precisely that period.

---

[20]Michael Crawford, personal communication, 1971.

[21]Kunst, *Hindu-Javanese,* p. 1. [22]Ibid.

[23]Kunst, *Music in Java,* pp. 107-8.

It does not necessarily follow, however, that during this time central Java became a backwater of musical activities, and regressed to coarser, less variegated practices. The abiding forms by which we have charted a linear course of Javanese history might well have not been characteristic of the princes who came to the fore in central Java in those times--just as they were not adhered to in areas of west Java that Kunst found to be so "primitive." This could have been the case with written tales and teachings as well as wood carving, bathik, and other perishable artifacts. Variations, for example, in song form and execution may well have been practiced in central Java throughout this period, and in Sunda throughout the "Hindu-Javanese" era. And even some of the varieties of sound-making activity which are pictured on the Barabudhur seem to have been maintained in areas of Sunda, while they have fallen out of use in the Kedu plain regions.

In the hills of west Java, southwest of Jakarta, the Badui have a complex musical culture which, in many ways, bears closer relation to the musical activities of Java as represented on the Barabudhur than to that practiced in the kratons of central Java today. The center (geographically and politically) of this group consists of "priestly" families who, according to Surjabrata,[24] abhor struck musical instruments (for example, most instruments of the gamelan) as "instruments of the devil." However, the vocal music of this "priestly" group is highly developed and employs among others, a seven-tone tuning system. The Badui are also perhaps the only remaining group on the island of Java who employ transverse flutes though such flutes are found in abundance on the Barabudhur.

It is also necessary to consider the role of the kraton in the social order throughout the period prior to the eighteenth century and what musical activity, now a part of court culture, was then outside the concern of the court (or outside the purview of its preservational aspect). There may have been instruments and sound-making activities which developed among sections of the society which had no place in the court until, for reasons of pleasure or power, a particular court individual brought them into a pre-existing court ensemble, or created a new court ensemble context in which they could function. Present-day musicians have memories of such situations occurring even within the last century, and stories they tell trace musical developments in the court by means of assimilative processes back as far as the time of Paku Buwana IV and V at the turn of the nineteenth century.[25]

---

[24]Bernard Surjabrata, "Indonesian Music," lecture notes (Middletown, Connecticut: Wesleyan University, 1969). See also Didi Suryadi, *Sekitar Kehidupan Musik Masyarakat Baduy* (Bandung: Lembaga Kebudayaan Universitas Padjadjaran, 1974), pp. 61-62.

[25]Excluded from the activities which are taught--or taught about--in the conservatories and academies are some which might qualify under the heading "folk" in the West, and some which might not. At Aski, which is more of a research institution than Kokar, and is on an equivalent level to American undergraduate institutions, more practices which might be called "folk" are studied, though seldom if ever from the point of view of execution. Thus, some discussions ensue on the meaning and structure of, for example, jatilan, reyog, *larasmadya*, and *sitran*, but to my knowledge, these are never studied from the point of view of their equality with karawitan practices. This is the result, in part, of the fact that these activities were not a part of the kraton practices at the time karawitan was formalized. There are

The enforced peace from the middle of the eighteenth century smoothed the way for "artistic" efforts in the courts which had in the previous three centuries been impossible, or unnecessary, because either of the lack of time to muster the technology to execute the artifact, the lack of stable order on which to base a "unified" perspective, or lack of meaning in traditional terms. But during this period, if we view the efforts of the major Javanese court centers in the light of the patterns of traditional culture, we can develop the argument that there was no single "court" culture up until the time the courts began to dissolve in the middle of the twentieth century. Much has been made of the rivalry between the Yogyakarta and Surakarta courts throughout the period from Giyanti (1755) to the beginning of the Japanese occupation. To a great extent that rivalry took the form of escalating efforts directed toward the creation of more and more intricate patterns of sound-making, usually on instruments, but sometimes with voices. The effort has generally been seen as an attempt of one court center to outdo the other in beautiful creations. Viewed in the perspective of the history of traditional Javanese power politics, it did, however, probably reflect the specific aim of differentiating one court from the other in order to demonstrate the unique power of that court center.[26]

---

different reasons why each activity is omitted from study. General statements are made by musicians to the effect that none of these activities are halus enough, but this may be an overly insipid reading of the power of halus, brought about by the correlation of some aspects of the meaning of the word with paralysis in emotional response and lack of action. In the heat of the events which led up to the Indonesian revolution, Tan Malaka suggested that perhaps gamelan was "too *halus* for *perjuangan* [struggle]" (quoted from his *Madilog* [written in 1942-43] in R. Mrazak, "Tan Malaka: A Political Personality's Structure of Experience," *Indonesia*, 14 [October 1972], p. 26). Musicians do not see halus or karawitan in those terms, but this does not mean that Tan Malaka's perception was incorrect. The test of its accuracy could only be made on an individual basis: whether to accept the immutability of the world around karawitan, to reject the world and keep karawitan, or reject both.

[26]Thus, when the Javanese conservatories that were founded after the Indonesian revolution drew their teachers from all of the courts of both metropolitan centers, the thought was advanced that all four centers had created elaborations of a traditional system which could be described as the rich cultural heritage of the entire Javanese people. See K. M. Soerjaatmadja, "Konservatori Karawitan Indonesia," in *Sana Budaja*, 1, 5 (1957), for one expression of this opinion. Some administrators thought that if the creations of these courts were removed from the court ethos, and assured the support of a rationalized central government, they could attain neutral aesthetic status. They might, thereby, serve as one of the foundation stones for the development of a complex of artistic activities that would be pan-Indonesian--expressions of Indonesian national culture. Many of the teachers, students, and graduates of the conservatories and academies since their inception, have been aware of the problems that such a stance creates, the major problem being the conflict between the court context of many traditional Javanese activities that constitute karawitan and their meaning to other sectors of society. Many of the first teachers at Kokar disassociated themselves from the status of nyaga (even from the name nyaga), and maintained that the values of karawitan were not necessarily those of the court--that is, that the court had essentially lost its traditional meaning. The biographies of several of these early teachers reveal this differentiation between their role as perpetuators of karawitan and perpetuators of the court values. All of the musicians who teach at these conservatories are aware of the differences in practices that grow out of the existence of four court centers through the past century and a half, and these musicians usually make a point of teaching these differences, and resisting standardization of the activities.

Some historians who are dealing with this period in Javanese history have maintained that the "flowering of the arts" in literary, musical, bathik, carving, and metal work in the nineteenth century represented a sublimation of the impulses of the courts to conquer one another by force of arms. Thus, Ricklefs asks with regard to the period subsequent to Giyanti, if there is "not some peculiarity about times of political change and uncertainty which makes them congenial to cultural progress."[27]

When some musicians are asked whether karawitan is a part of the feudal past or of the modern world, they will answer that karawitan is neither, but it is traditional. The designation "feudal" would imply that the ethos in which karawitan functioned was oppressive, nonparticipatory, usually corrupt, and that karawitan was, in fact, deserving of the descriptions "involuted," "Byzantine," "over-refined" to which it was subjected in the first half of this century. This would probably mean that the court gamelan and gendhing were indeed sublimations of those creative power-drives which would have been put to better use throwing off the domination of the Javanese elite classes and their "Dutch masters."

I will not debate that there are elements of truth in such a picture, especially if viewed from the perspective of an outsider to the world of karawitan. Observers can regard the advocates of karawitan as currently frozen--locked into a rigid posture of adherence to a feudal order because the sounds they make are in certain respects bound up with the roles that those sounds played in the ethos of those courts, or at least with the values that those courts represented. Yet, when karawitan musicians reject the epithet "modern" for the activities in which they are engaged, they reveal another possible analysis: karawitan is not feudal or modern because it does not function in a value system which accepts a disjuncture between the past and the present. Their commitment to the values remains the same. Once participants in karawitan accept the "feudality" of the traditional activities in which they participate they accept that the values informing them were corrupt and must be overthrown. As long as there is belief in the traditional function of karawitan there is belief in the spiral forward of order/disorder and in the resolution of the *jaman édan* (time of disorder) in which Javanese culture finds itself. It is, therefore, easy for many of its teachers to accept the idea that karawitan can be equated with "classical music" in the sense that nineteenth to twentieth century practice represents a point at which karawitan must be frozen until other social developments in Java change for the better.[28]

---

[27]M. C. Ricklefs, *Jogjakarta under Sultan Mangkubumi, 1749-1792* (London: Oxford University Press, 1974), p. 424.

[28]There are "modern" or popular trends outside the conservatories and academies to institute major changes in or to ignore entirely the patterns of expression in karawitan--that is, ignore them to the extent that they are fixed in the form that Javanese musicians developed them over the past century and a half. Hence, we find in the two major works of analysis of karawitan published to date the following admonitions: "Truly this tradition is intended to facilitate the efforts to reach beauty, and should not be bridled--neither should it be thrown away just like that . . ." (Ki Sindusawarno, *Ilmu-Karawitan*, p. 77) and "we must certainly be grateful to our ancestors who have bequeathed both the gamelan and gendhing to us. For this reason, I think it is not necessary for us to change, add to, or detract from these materials indiscriminately . . ." (Martopangrawit, *Pengetahuan*, 1, p. 49).

Up until the death of Mangkunegara VII and Pakubuwana X in Surakarta, most performers of karawitan envisaged their relationship to the court as a fulfillment of the *gusti-kawula* (sustained-sustainer) bond, and even those who did not so revere this relationship still measured interpersonal social behavior by halus-kasar standards. This meant that the various activities they performed had deep significance (religious meaning) which was bound up with traditional Javanese power politics. Nyaga were drawn to or summoned by the ruler for the reason that they would add to the power concentrated in him by evincing an increased aura of measured grandeur. The separation of the Javanese world that occurred in the eighteenth to nineteenth centuries was for many not unlike previous separations or diffusions of power that were embedded in the language--the cultural memory of the Javanese.

None of this is meant to imply that the only force which served to cultivate elaborate and fruitful ways of expression in sound was the court, nor that the courts were the only forces which worked to "preserve" or "conserve" these elaborate practices. This clearly did not obtain for Javanese courts prior to Giyanti, in the sense that Giyanti "stabilized" Javanese social relations in a way that they were not stabilized prior to then. The role of the court as preserver may well have been a part of its position as the focus of a geographical mandala prior to Giyanti. And subsequently the other forces in society which sustained these activities, found their power increasingly measured in terms of the courts that were established and maintained by Dutch power. Thus the possibility of alternative foci of power with alternative variations to those of the center was considerably lessened.

Jaap Kunst was aware of cycles in Javanese history, and that between the period which produced Barabudhur and Prambanan and that which produced Gambirsawit and the Centhini, the focus of power had shifted many times, and cultural practices had changed.[29] I have already mentioned his impressive and careful treatment of all the source materials for a history of instruments in the Hindu-Javanese period. The historical section of his *Music in Java* presents just as comprehensive a collection of the European and Asian records of Javanese sound-making activities after the sixteenth century.

Yet he had an interest in searching out aspects of Javanese music which he believed had not changed over time. He seems to have regarded the large gamelan of the courts as the culmination of an evolutionary process of development of Javanese music. Hence it was possible for him to conclude that the practices of other regions, judged in comparison to those of the courts, had either contributed to that evolution along the way, or were baser, less variegated forms of that fully-evolved entity. He placed instrumental activities on a higher cultural level than those of singing, or in other words, placed higher value on the expression of sound by instruments than with voices. He was interested in finding "absolute" systems behind particular cultural activi-

---

[29]But see his treatment of these dynamics on the first page of his *Hindu-Javanese Musical Instruments*, where after discussing Sundanese history in the terms quoted on page 139 above, he said: "In contrast, the central and eastern parts of the island were areas of lowland cultures and proud dynasties, where great power, sometimes controlling the entire Archipelago, had its seat, and where, from at least the 8th century to the beginning of the 16th century--i.e. over a period of 800 years--Javanese cultural life had its centre."

ties. In his consideration of Javanese gamelan he was faced with a need to make sense of the varieties of tunings that he heard coming from individual gamelan sets which performed analogous activities in different geographical locations, and those which performed different activities in the same or different geographical locations. He made sense of these tunings by proposing that they all related to an abstract system that was not, in fact, realized in any one of them, and that the system was kept in the minds of musicians and tuners, and passed on from generation to generation, without even a verbal conceptualization of it in the culture.

Kunst's proposal has been extensively discussed in scholarly literature since it was first made,[30] and is now generally discounted. I do not wish to discuss either this theory or Kunst's ideas on the historical origins of Javanese instruments, nor do I wish to propose the reasons behind them.[31] Rather, I wish to suggest one line of inquiry that has not yet been made concerning gamelan tunings and the "systematics" of Javanese music. The key to my line of inquiry is clear if a comparison is made between a quotation from Kunst and one from Raden Mas Kodrat Poerbapangrawit, a musician, teacher, and author of books on gamelan. Kunst's words come from the first page of the analytic section of *Music in Java:*

> The music of any people not knowing the use of musical--at any rate, melody-producing--instruments is, of course, purely vocal, and it appears that, in such cases, we cannot speak of "scales" in the ordinary sense of the word, let alone of tonal systems. Singing alone, uninfluenced by musical instruments, possesses no definitely fixed intervals; it knows only of higher or lower, the chief thing being the movement upwards or downwards, and not so much the absolute size of the intervals produced. . . .
>
> It was not until man learned how to make musical instruments on which a sequence of tones could be produced that real tonal scales came into being, i.e. sequences of fixed intervals, and often, in such cases, vocal music would follow suit at least for the greater part. Only in the higher forms of culture was this stage of development reached; wherever lower types of civilization are found in possession of such instruments and such scale systems, they are always found to have been imported from some people with a higher culture.[32]

Kunst saw the power of song in Java. In the "magic" of song, however, he found no absolute system which he could quantify and analyze. Conversely, he was sure that instrumental music represented a higher level of musical evolution, and that song followed instrumental practice--especially where instrumental practice was as highly developed as in the gamelan of central Java. Kunst was looking for a system.

---

[30]The theory was actually proposed by E. M. von Hornbostel, a teacher of Kunst. See Kunst, *Cultural Background of Indonesian Music* (Amsterdam: Indisch Instituut, 1949), p. 3.

[31]For a discussion of the correlation between Kunst's notion of high cultures and his theories of Javanese tunings, see J. M. O. Becker's review of the third edition of *Music in Java,* in *Ethnomusicology,* 19, 2 (1975), pp. 310-15.

[32]Kunst, *Music in Java,* pp. 11-12.

He saw that system in laras slendro and laras pelog, as realized in his abstract codification of all the tuning measurements of gamelan he had made.

As can be seen from the quotation below, Kodrat turns this tuning process around:

> Although the slendro and pelog tones proceed from the sounds of the voice [*miturut saka swaraning lesan*], when they are made into gamelan there are those which change from [*owah saka*] the vocal sound. These changes of sound are sometimes intentional, sometimes unintentional. The unintentional are called blero (false [the Dutch, *palsu*]). The intentional are called embat. . . . There are also gamelan which are without embat, thus only accord with [*mung miturut*] the sound of the voice (mouth) which is not blero (the laras of the sound of the voice which is not blero has no embat).[33]

Tuning, then, proceeds from the voice to instruments. And instruments are tuned away from the slendro and pelog tunings of the voice. A Javanese understanding of gamelan tuning, then proceeds from the vocal sound to the instruments, and it would follow that a consideration of systematics of tuning in contemporary Javanese gamelan would begin with an understanding of the placement of pitches in Javanese song.

Kunst's interest in instrumental tuning systems was shared by many of his contemporaries. He passed his tuning system measurements on to several scholars who worked along similar lines in cultures around the world. One scholar to whom he sent them was A. M. Jones, whose work with Sub-Saharan African musics can in many ways be analogized with that of Kunst in Indonesia. Jones's book on the early historical relations between Africa and Indonesia[34] is based in part on Kunst's data, together with measurements of tunings of instruments from elsewhere in Southeast Asia, and with his own extensive work in African instrument tunings and musical practice. The second edition of Jones's book was published in 1971,[35] with additions in the form of responses to some of the criticisms from musicologists of the theories he had put forward on tuning systems and cultural contacts.

The strongest negative criticism of Jones's musicological work was advanced by Mantle Hood, in three separate reviews,[36] and I would like

---

[33]R. M. Kodrat Poerbapangrawit, *Genḍing Djawa* (Jakarta: Harapan Masa, 1955), p. 12. See above, note 8, for Warsodiningrat's proposition on the historical origins of embat. See also Martopangrawit, *Pengetahuan,* 1, pp. 26 ff., for a discussion of "natural" and "fabricated" embat in song and gamelan.

[34]Jones's use of the term Indonesia was very vague, sometimes referring to an area roughly equal to coastal Southeast Asia and the Indonesian archipelago, sometimes to a group or groups of people with certain culture characteristics who came from a particular place or places somewhere in that large area, the location depending on correspondences between cultural characteristics in that area and in the area of Africa in which he was interested.

[35]Arthur Morris Jones, *Africa and Indonesia: The Evidence of the Xylophone and Other Musical and Cultural Factors,* photomechanical reprint of the first (1964) edition, with an additional chapter: "More Evidence on Africa and Indonesia" (Leiden: Brill, 1971).

[36]Hood's reviews were in *Man,* 15, 112 (1965), pp. 124-125; *American Anthropolo-*

to make several comments relevant to the musicological elements of this exchange. I will also note some of the scholarly research presently underway in fields other than musicology, which might suggest possible ways in which other lines of inquiry can be used to help us towards a more open approach to the history of Javanese music.

Based on his measurement of many African instruments, Jones posited three major tuning systems in use in the xylophone areas of Africa, and particularly on xylophones or xylophone-derived instruments.[37] He then made parallels between Southeast Asian and African instrumental tunings which he felt showed a sufficient correspondence for this to be interpreted as convincing evidence of some kind of close relationship between these two areas in the past. I should like to disregard Jones's broader historical speculation on these ties,[38] and to concentrate here

---

gist, 67 (1966), pp. 1579-81; and *Ethnomusicology,* 10, 2 (1966), pp. 214-16. I deal with some of Hood's objections to Jones' work in this paper. A fourth review by Ernst L. Heins (*Bijdragen tot de Taal-, Land-, en Volkenkunde van Nederlandsch-Indie,* 122, 2 [1966], pp. 274-82) raised a few other points and expressed regret "that a study like . . . [Jones's had] been published at all . . ." (p. 281). This opinion was in part based on the faults Heins saw in its musicological methodology, in part because many of the details of Jones' evidence were incorrect or incorrectly interpreted, and perhaps in part because it elaborated a "diffusionist" conception of human contact.

[37]Jones used the term xylophone loosely. According to systematic organological categories, he was discussing mostly idiophones, i.e., instruments from which sound is produced without stretching the basic material on which they are made. On this, see Curt Sachs, *The History of Musical Instruments* (New York: W. W. Norton, 1940), pp. 454-67. It might have been clearer, though perhaps not so colorful, if Jones had used this broader term to describe the group of instruments that he was discussing. The term xylophone is usually limited to wooden-key idiophones, while the idiophones Jones discussed are key-formed of wood, metal, or bamboo. Jones's grouping of the *mbira* (finger-plucked, metal or wood tines usually housed in a gourd resonator) and the xylophone together under the same heading--calling the mbira a pocket-xylophone--has been questioned, based on the fact that one instrument does not take the place of the other, and both have highly-developed instrument-specific practices and repertories associated with them in African cultures.

[38]Considering other conditions in Africa and Indonesia, Jones describes the relationship as one of colonization of Africa, by Indonesians migrating in waves between the first and sixth centuries of the Christian era. The magnitude of this jump seems unnecessary. His conclusion, and several points of fact have been called into question by most reviewers of his book. Jeffreys, for example, presents convincing arguments for the possibility that xylophone practices and ideas for instrumental construction might have come from Africa to the Indonesian islands. His criticism of some of Jones's African evidence, coupled with the absence of developed xylophone practices in the Malayo-Polynesian sections of Madagascar, leads me to consider the possibilities of cultural relations between Africa and Indonesia from the other direction than Jones proposes. I have already mentioned the absence of evidence of developed xylophone practices on the Barabudhur. Can we not look in both directions for the details with which we can elaborate the picture of the past? See the review by M. D. W. Jeffreys, *Journal of the African Music Society,* 4, 1 (1968), pp. 66-73. For other criticisms, see the reviews by John Blacking, *African Studies,* 25, 1 (1966), pp. 48-51; Alan P. Merriam, *Africa Report,* 10, 11 (1966), p. 6; J. D. Fage, *Journal of African History,* 6, 3 (1965), pp. 413-15; Harold C. Fleming, *Ethnomusicology,* , 10, 2 (1966), pp. 216-18; and Ivan Macak, *Asian and African Studies,* 2, (1966), p. 145.

on his consideration of parallels between tuning systems, and his use of the Stroboconn for measuring these.

Jones called his three tuning systems the equiheptatonic, the equipentatonic, and the pelog-heptatonic. He related the latter two to Kunst's slendro and pelog. He symbolized all three of them in terms of Arabic numerals derived from measurements made by the Stroboconn, an instrument developed in the United States which divides the Western octave--the tonal range from one pitch to another above or below which is two times, or one-half the vibrations per second of the said tone--into 1,200 equal units. The figure 1,200 was chosen by the maker of the Stroboconn because that number makes units of 100 available to describe the intervals between the twelve tones of the "equal-tempered" tuning system which serves as a theoretical model in most considerations of Western European and American "classical" music. This tuning system is theoretical in the sense that it is seldom realized on any nonfixed pitch instrument, but it concerns Western music because the relationships between pitches in most Western compositions from the seventeenth century to the middle of the twentieth century have been explained in terms of equal temperament. Moreover, the piano and the Western xylophone, the two main fixed pitch instruments in the West, are fairly closely aligned with the equal-tempered norm. Even in the case of both of these classes of instrument now, tunings differ--but only very slightly--from instrument to instrument and octave to octave according to the interest of the tuner, the owner or the performer.[39]

The Stroboconn can measure tunings of other than Western instruments because, in many non-Western activities of play with pitch in time, an interval close to that of the Western octave interval can be ascertained. It cannot be assumed, however, that this interval is a variant of the Western octave. All non-Western musics seem to have either a larger or smaller interval than the Western octave as realized on instruments or in song. In Javanese gamelan the "octave" interval is almost invariably larger than 1,200 units.[40]

---

[39]The name for the process of tuning, temperament--a mixing or balancing--gives evidence of lack of immutability in its nature. Thus, the word "system" in the name "equal-tempered tuning system" must be interpreted flexibly when used to describe Western musics. Even the most "scientifically"-oriented dictionaries of Western music reflect the lack of absolutism in this musical process. "Temperament is *adjustment* in tuning whereby . . . such pairs of notes as B sharp and C, or C sharp and D flat are combined instead of being treated as individuals, a *compromise* being effected which leaves neither note of the pair accurate but both sufficiently near accuracy for the ear *tolerantly* to accept them" (emphasis mine). The same definition continues, however, in such a way as to establish practice on these instruments as the standard for measurement of the proper tuning of nonfixed pitch performers in Western musics: "It is a common delusion that voices singing unaccompanied, or string instrumentalists so playing, being free of 'the tyranny of the keyboard,' use *Just Intonation*, i.e. the untempered scale." Percy Scholes, *The Concise Oxford Dictionary of Music*, ed. J. O. Ward, 2nd ed. (London: Oxford University Press, 1964), pp. 568-569. The author proceeds to list two ways in which singers and string players, for example, tune with reference to the tempered scale, which, as he has stated above, is a compromise in itself. Hence, the Western "tuning system" represents a compromise based upon a compromise. Questions of the relationship of equal temperament and just intonation to musical practice, and of the tunings of one era of musical practice to another in the West, are being explored by musicologists now.

[40]See Wasisto Surjodiningrat, P. J. Sudarjana, and Adhi Susanto, *Tone Measure-*

We are now prepared to consider one of the problems evident in Jones's interpretation of his Stroboconn measurements, at least insofar as his Indonesian data is concerned. Most Javanese tuners tune gamelan instruments with a high degree of care and with relatively high sensitivity to tonal placement.[41] Most gamelan players are aware of out-of-tune notes. Yet, unlike some Western music where a norm--the equal-tempered system--is a useful tool for analysis, karawitan accepts, and even values, variety in tuning within what appear to be two basic parameters--slendro and pelog.[42] Individual tones in the various realizations on gamelan within these basic parameters are, therefore, not definable in terms of such an exact symbolic form as the numbers which the Stroboconn can produce, unless the number definitions are generalized upon, or consist of two number figures with dashes between them. Thus, an individual gamelan within the pelog parameter might have an intervalic structure which can be measured by the Stroboconn and symbolized by the number sequence 104, 190, 251, 132, 87, 158, and 305.[43] But, when thirty gamelan within the pelog parameter are compared, it can only be said that the corresponding intervals in all thirty fall within the following limits: 77-145, 105-190, 251-334, 87-193, 87-142, 124-232, and 217-340. This parameter could be defined as consisting of intervals that could be named small-small-large-small-small-small-large. It could be further proposed that the second and sixth of the intervals is slightly larger than all the other small intervals.

We could not say, however, that the pelog parameter is defined by the sequence 104, 190, 251, 132, 87, 158, and 305. The definition for the parameter would be small-smallplus-large-small-small-smallplus-large. Depending on the nature of the theory we are proposing we could keep or eliminate the "plus" from our designation of the parameter, because some gamelan do not have the slightly larger interval at positions two and six.

The slendro parameter can be similarly defined. The Stroboconn measurements for one gamelan are: 244, 240, 245, 242, 232. (This gamelan, by the way, appears to have fairly even distribution of space --intervals--between pitches.) But if we consider slendro on twenty-

---

ments of Outstanding Javanese Gamelans in Jogjakarta and Surakarta (Yogyakarta: Gadjah Mada University Press, 1972). In Tables 5 and 6 Wasisto gives Stroboconn measurements for four octaves of ten gamelan and one to three octaves of eighteen other gamelan. Over 90 percent of the approximately 700 octave relationships in these twenty-eight gamelan are larger than 1,200 units. Hood's measurements of gamelan also support this assertion when Kolinski's corrections are taken into account. See Mantle Hood, "Slendro and Pelog Redefined," *Selected Reports,* 1 (1966), pp. 28 ff.; review by Mieczyslaw Kolinski in *Ethnomusicology,* 12, 2 (1968), pp. 281 ff.

[41]Wasisto, *Tone Measurements,* and Hood, "Slendro and Pelog," show measurements that reflect remarkable precision in tuning the same pitch on different instruments.

[42]Ki Sindusawarno, *Ilmu-Karawitan,* p. 24. "There are no two gamelan whose successions of intervals agree, in slendro or pelog. . . . This difference between gamelan is called a difference in embat. . . . This embat in [gamelan] is seen to be a measure of richness, proving the existence of all types of sensations of beauty." See also Hardja Susilo's review of the third edition of *Music in Java; Asian Music,* 7, 1 (1975), pp. 58-68.

[43]This and other measurements are from Wasisto, *Tone-Measurements,* Tables 5 and 6.

eight gamelan, we reach the following definition: 217-252, 221-259, 220-266, 228-260 and 242-275. A verbal definition of this parameter might be: medium-medium-medium-medium-mediumplus.

Either the number or the word definition of these parameters might be satisfactory for certain fields of comparison. The appropriateness of the symbolic system would depend to a great extent on the purposes of the comparison. In fact, I have made a comparison in assigning even the words small, medium, and large, and the numbers. Jones used the numbers he received from the Stroboconn and the sets of numbers with which Kunst had provided him, to evaluate Indonesian and African xylophone tunings. He chose to represent the tunings in their most precise forms. Yet he evaluated them with reference to a general system of organization that existed as an abstract, or absolute, independent of them.

The general parameters of tonal relationships on Javanese gamelan have been discussed above. It is clear that, although general patterns of tonal relationships emerge, with groups of gamelan which seem to follow the same overall pattern of intervalic relationships, an overall Javanese norm for slendro and pelog, equivalent to, say, the norm of equal temperament, is not yet readily apparent. Thus, Jones was making a sweeping conclusion when he posited that slendro and pelog followed precisely definable intervalic relationships. He further complicated matters by disparaging the specific examples of Indonesian instrument tunings which did not fit his schema as resulting from low standards of tuning in individual tuners. It would seem otherwise. For example, the standard by which he sought to measure instrumental tuning, in central Java at least, was not sufficiently informed concerning aspects of musical practice other than instrumental music.[44]

In one of his reviews of Jones,[45] Hood observed that musicologists have questioned the importance of measurements of tuning systems and scales as a basis for comparative study of musics of the world. This suggests to me that it may be unreasonable to expect tight correlations between the tunings of xylophones in Africa and those in Indonesia. Though Jones has maintained that his "main platform is a musical one,"[46] and he devoted a third of his *Africa and Indonesia* to comparisons of tuning systems, these comparisons will clearly not be valuable unless they are restated to take into account both other musicological facts about Indonesia and Sub-Saharan Africa, and also evidence from other fields, such as that supplied by historical, linguistic, ethnological, and anthropological research.

---

[44]Jones saw his tuning system argument as based on generalizations or averages of Stroboconn measurements (see his discussion of the Stroboconn in "The Influence of Indonesia: The Musicological Evidence Reconsidered," *Azania,* 4 [1969], p. 132), yet persisted in using the Stroboconn measurements in their most precise form, when he compared individual instruments from different cultures. It might have been far more useful for him to have set parameters for large, medium, and small interval values and state "scales" in those terms.

[45]*Ethnomusicology,* pp. 214-16.

[46]Jones, "Influence of Indonesia," p. 131.

Hood's suggestion that Jones should deal more with elements of musical style[47] (techniques of making music and the resultant sounds) is valuable in that it emphasizes the variety of aspects of musical evidence that can be brought to bear in discussions of cross-fertilization of cultures. Unfortunately, it is clear from developments in instrumental style which have taken place in the time of recorded history that comparisons of Africa and Indonesia in this area alone will not yield any more convincing evidence than if any other single area were used as a basis for discussion.[48] It may be that if an analysis is made of the practice of interlocking instrumental parts, and the social function of this activity in areas of Africa and Indonesia is then compared by a student with extensive experience in both areas, some useful parallels will emerge. Jones's argument would clearly have profited greatly if his knowledge of the history and music of some areas of Sub-Saharan Africa were complemented by as thorough a knowledge of both fields in Indonesia. Then a number of erroneous suppositions would have been eliminated.[49] However, Jones has performed a service by drawing together bits of evidence from many fields which suggest that the history of Javanese music should not be considered in isolation from the history of sound-making activities in other parts of the world, particularly Sub-Saharan Africa. This could lead to a more informed view of the so-called pre- and proto-historic periods in the history of the east coast of Africa, Madagascar and Southeast Asia, particularly the Indonesian archipelago.[50]

---

[47]Made in his *Man* review.

[48]One such example would be Karnatic (south Indian) music where the violin has become an integral part of most concerts, accompanying the main artist by playing melodic patterns similar to those he has played, but immediately or a short time subsequent to the main artist's execution of those melodic patterns. The instrument is clearly Western in origin--though violins are made, now, on the Indian subcontinent--but the music played on the instrument is clearly Indian in style. The violin is neither tuned nor held in the Western art-music manner. The instrument was first extensively employed in the Karnatic music context in the mid-nineteenth century. S. Krishnaswami, *Musical Instruments of India* (New Delhi: Ministry of Information and Broadcasting, 1971), p. 35.

[49]Jones's eighth century designation for the Panataran relief showing a xylophone (*Africa and Indonesia*, p. 135, and "Influence of Indonesia," p. 135) is incorrect. The xylophone he refers to is on the so-called *pendhapa* terrace, but that terrace has a foundation stone bearing a date that corresponds to 1375 A.D. See, i.a., A. J. Bernet-Kempers, *Ancient Indonesian Art* (Amsterdam: C. P. J. van der Peet, 1959), p. 90. The only other temple relief thus far uncovered which shows a xylophone is Barabudhur IBb89 (see Kunst, *Hindu-Javanese*, p. 71 and figure 21). However, that xylophone has a very different form, number of keys, manner of playing, and playing sticks from the Panataran xylophone. Similarities between the Panataran relief instrument and African xylophones were first noted in Western musicological literature by von Hornbostel.

[50]Recent anthropological and historical research on contacts between east Africa/Madagascar and Indonesia up to the end of the first millennium A.D. was summarized in Keith Taylor, "Madagascar in the Ancient Malayo-Polynesian Myths," in *Explorations in Early Southeast Asian History: The Origins of Southeast Asian Statecraft*, ed. K. R. Hall and J. K. Whitmore, Michigan Papers on South and Southeast Asia, no. 11 (Ann Arbor: University of Michigan Center for South and Southeast Asian Studies, 1976), pp. 25-60, and in R. K. Kent, *Early Kingdoms in Madagascar, 1500-1700* (New York: Holt Rinehart and Winston, 1970).

It is unfortunate, therefore, that Hood, who has shown elsewhere his interest in an anthropological or historical approach to Javanese music,[51] has not taken note of some of Jones's observations about African-Indonesian contacts in his writing about the history of musical activities in central Java. In fact, perhaps as a partial result of limited consideration of these and other such observations, Hood accepts as historical a theory for the "evolution" (his term) of the Javanese gamelan from two-tone ensembles, progressively tone by tone to the present seven-tone pelog and five-tone slendro.[52]

Using as a base a Yogyakarta kraton manuscript on the history of the gamelan, Hood postulated that around the third century A.D. sets of bronze drums imported into Java centuries before were reworked into two three-tone proto-gamelan, one with slendro properties, and the other with pelog propensities.[53] By the eighth century, the slendro-oriented sets had developed into five-tone gamelan "Surendro," while those of the pelog orientation added successively one tone throughout the centuries until, by the fifteenth century, they achieved their present form.

The interest of Hood's thesis lies in its interpretation of a kraton way of dealing with the present-day variety of central Javanese gamelan and of the compositions they play.[54] The information he presented is probably most useful in formulating a written history of the karawitan ensembles which are presently regarded as the prime instru-

---

[51]Mantle Hood, "The Enduring Tradition: Music and Theater in Java and Bali," in *Indonesia*, ed. Ruth McVey (New Haven: Yale University Press, 1963), pp. 438-74; *Music of the Venerable Dark Cloud: The Javanese Gamelan Khjai Mendung* (Los Angeles: University of California, 1967); and, with Jose Maceda, *Music* (Leiden: Brill, 1972).

[52]"The Effect of Medieval Technology," pp. 148-70.

[53]The bronze drum certainly has some affinities, at least in construction, with the present-day gong in its vertical (gong, kempul) and horizontal (kenong, bonang, kethuk) positions. There may even be evidence that some bronze drum ensembles were used in the Javanese past in analogous roles to those of some ensembles that are now grouped under the heading of gamelan. Kunst quoted an early eighteenth century Dutch account of an ensemble which, from this description, might very well have consisted in part of bronze drums. Kunst, *Music in Java*, p. 114.

[54]Jaap Kunst's efforts to trace the gong to the Middle East, however, can also be respected, not necessarily as arguments for the origin of the instrument, but as evidence for the widespread use of the gong in times past. Of course, if we are discussing origins, the point that the gong was in use in many places in times past is only the beginning; we must move on to determine from which of those places the gong moved to Java, and how it moved. Here we have extensive evidence that bronze drums were made in the Dông-So'n area of northern Vietnam many centuries prior to their use in the south Indonesian islands. However, merely because we have no such conclusive evidence for the knobless, Middle-Eastern gong, we should not conclude that the bronze drum alone was the prototype of the contemporary Javanese gong. In fact the two may have coalesced in Java and been developed by local craftsmen to fit the developing needs of Javanese.

We also need to examine more closely the contexts in which these drums were found in other areas of Southeast Asia, and whether they were used in ways meriting their description as "musical" instruments. If the past context of "drum-playing" were far removed from other activities grouped under the present heading of music, it is conceivable that the current use of the term "drum" might be misleading.

mental ensembles of central Java. However, he also suggested that the history of the five- and seven-tone Javanese tuning systems is the same as that of these complete gamelan ensembles,[55] or in other words, that the evolution that led to the present-day gamelan involved the same process as development of pelog and slendro tunings. Hood has not successfully countered ethnological and archaeological arguments[56] for the existence of the pelog parameter side by side with the slendro one. Nor has he effectively taken into account evidence that pelog tunings preceded the formation of a five-tone gamelan.

Although selective in his use of iconographic, paleographic, literary, and ethnologic materials in writing his history, he was uncritical in his use of the kraton manuscript which provided its basic outline. It can be argued that he should at least have suggested that a palace formulation of the history of gamelan may not provide a complete story of the development of instrumental ensembles in central Java. Even if it is maintained that the kraton manuscript provides a useful framework for discussing the development of the gamelan lengkap, the history of tuning systems should not then be tied to the development of court gamelan of nineteenth century Java.

There are many points of inquiry which could serve as complements to Hood's work with some of the nineteenth century gamelan manifestations of Javanese sound-making activities. Two points for further study are the dynamics behind the deletion from the ensemble of some of the instruments which provided the richness of timbre in "shimmering-sound" ensembles, with the addition of other instruments thereby to produce multiple-tunings, and the dynamics behind the refinement in tuning of instruments used for melody-oriented accompaniment.[57] Both of the above conditions appear to have accelerated within the last two

---

[55]"The slendro and pelog tuning systems of Java have followed separate lines of development but derive from a common source, the three-tone gamelan Munggang. . . . Ethnological evidence notwithstanding, the complete five-tone slendro system seems to have been developed some eight centuries earlier than the complete seven-tone pelog system." "The Effect of Medieval Technology," p. 167.

[56]Some of these ethnological arguments appear in Kunst, *Music in Java*, pp. 20 ff. and pp. 582 ff. The archaeological evidence is presented in Jaap Kunst, "Fragments from Diaries Written during a Lecture Tour in the New World . . . ," in *The Commonwealth of Music*, ed. Gustav Reese and Rose Brandel (New York: Free Press of Glencoe, 1965), pp. 334-37, and the Panataran relief on the pendhapa terrace. J. S. Brandts Buys published an article analyzing the relief in *Djawa*, 2 (1922), pp. 34-48. The Balinese parallel to this instrument, first described by P. V. Van Stein Callenfels, and cited by Brandts Buys, is more completely discussed by Colin McPhee in *Music in Bali* (New Haven: Yale University Press, 1966), pp. 274 ff. It is evident that the Panataran instrument is in a seven-tone tuning system from the way it parallels the present-day Balinese instrument in the number of its keys, their arrangement, and the way they are being struck by the two players on the relief.

[57]Lists of instruments in one or another of the twentieth century manifestations of the shimmering-sound group are found in Ir. Purbodiningrat, "Gamelan," *Sana-Budaja*, 1, 4 (1956), pp. 192-93. Stanley Hoffman has discussed some of the questions related to the inclusion of slendro instruments in one of the kodhok ngorek ensembles, as has Hood. See Stanley Hoffman, "Epistemology and Music in Java" (Master's thesis, University of Michigan, 1975), pp. 35 ff., and Hood, "The Effect of Medieval Technology," pp. 158 and 168. Past practices involved tuning the "same pitch" differently on different instruments, thus causing "beats" to arise. On the

centuries at least in the regions of Java where the larger ensembles known as gamelan lengkap were developing. Both may reflect the coalescence of activities involving song--or melodic directions in singing techniques--with activities involving instruments or ensembles with greater "shimmering-sound" propensities.

It could plausibly be argued that as the repertory of the court sound-making practices grew, for some of the reasons and with some of the dynamics described above, the court assimilated instruments from outside its walls into its ensembles, reworked instruments so that different court ensembles merged with one another, and produced smaller versions of already existing instruments. As one of the foci of Hood's study was the effect of the growth in metal-working technology on the gamelan, he seems to have concluded that the growing complexity of tuning systems paralleled development of the ability to make bronze instruments, and it was, therefore, difficult for him to integrate the existence of developed seven-tone bamboo or wooden instruments.

Hood has not considered the possibility that iron-key gamelan could have preceded the court bronze ensemble. Though it is common in court circles now to deprecate iron ensembles as inferior in craftsmanship, tone, and appearance, it is possible that in the past such gamelan were highly prized outside one particular kraton, in other kratons, or in older village-based power circles. The oldest Balinese gamelan are iron-keyed; village gamelan in Java are often iron; the iron slab-"gong" is more widespread than the hanging gong; the sound of an iron hanging gong has often been favorably compared with that of its bronze counterpart. In fact the designation of bronze gamelan as more valuable and venerable than iron may be the result of a recent ascendance of one attitude.[58]

Both Jones and Hood were exclusivistic, rather than open enough to allow for explanations of inconsistencies or new material in considering the material with which they were working. As a consequence, both developed general theories for the early history of, in Hood's case, Javanese court gamelan, in Jones's case, Africa-Indonesia relations, which focused on only part of the whole picture: for one, court manifestations, for the other, the Indonesian colonization of Africa. In seeking a more flexible and open attitude towards the history of Javanese music, it is necessary to rethink some of our basic ideas of development through time, and in the present.

The idea of development is not foreign to Javanese culture. The root word for the most common term used to express the process is *kembang*, which is Javanese for flower or growth. Thus kembang-an is a flowering or blooming. A more elaborate term for kembang, and one

---

question of "beats" see Purbodiningrat, "Gamelan," p. 203: "In olden times, people preferred it when the laras of gamelan was *silir* (tilted/slanted), because, when the gamelan was played loudly, the sound was busy/active, and when played not loudly, the sound shimmered. This tuning was called the *hamyung* tuning. Now, people prefer the *mleng* tuning because, when the gamelan is played, the sound is clear and does not shimmer, no matter whether played loud or soft. Tuning such as this is called the *bremoro* (bee) tuning."

[58]See the information from Warsodiningrat about the origins of the gong in note 8 above.

which has many of the same implications is *sekar*. Together, kembangan and sekar-an also name basic melodic substances of gamelan gendhing. Another meaning for the word sekar is song. The less elaborate term for this is tembang, but the word kembang is often playfully used interchangeably with tembang to imply a similar kind of melodic creation in song.

Javanese are aware that flowering implies withering and blooming anew. Development that proceeds in cycles of birth-death-birth again, contrasts with development that is *kemajuan*, which means only forward progress, and is clearly Western in orientation. Our understanding of the development of Javanese music over time, and in the present day should not be tied to a progress-oriented, compilation- or preservation-minded view of traditional culture. Musical activities, like melodies or the pitches that compose them, bloom, wither, die and bloom again when the soils and the seasons are right. Some endure. The trunks of trees are evidence of continuities with ages past. But trees have times of fruitfulness as well.

It is ultimately to the work of Jaap Kunst that we return. For in his work we find the sensitivity to cultural nuances, the descriptive richness, and the lively intellect that we need, to serve our research into the past centuries of Javanese music. Kunst's theories were important to him--but he always seemed to have in his work the seeds to an understanding of opposite sides of the theory he proposed. Thus, after having brought to its full expression his theory of the equidistance of the slendro tuning, based on his theory of a historical continuity of several milennia, he included the following addenda as unintegratable pieces of information:

> i) instrumental slendro is, in fact, a combination or a compromise between two or more slightly different slendro scales which, however, are differentiated vocally (according to an oral communication from Walter Spies the slendro scale was not intended to be equidistant; it is supposed to contain two larger intervals, one of which is stable whilst the other is slightly variable--which, of course, can only be expressed vocally);
>
> ii) there is a difference in the turn of the melody, especially in the manner in which the nuclear-melody reaches the finish of the gongphrases;
>
> iii) in the paraphrasing certain sound-combinations are correlated with certain patets . . . ;
>
> iv) the factors mentioned under i) to iii) form part of an extremely refined and sensitive process by which the pitch of a melody is maintained as purily [*sic*] as possible, and which, after all, is to be explained psychologically rather than purely on the basis of scale technique.[59]

It is here that we may begin our inquiry into Javanese vocal music.

---

[59] *Music in Java*, p. 90.