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Music as a Reflection of a Composer’s Cosmology

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Preface

Since the Second World War, contemporary music has developed new ideologies and new technologies. Ideologies include dodecaphony, pointillism, total serialism, music of chance operation and indeterminacy, mixed media, intermedia, the use of clusters, minimalism, and, more recently, so-called neoromanticism. Electronic technologies include both electronic music and musique concrète, each of which has gradually merged into the domain of computer music.

During the 1980s the pattern has become more diffuse. There is no longer a mainstream, although neoromanticism is still in vogue. In fact,

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neoromanticism is understandable in part as a reaction to some of the excesses of intellectualism evident since total serialism. On the one hand, total serialism contributed greatly to the structural aspects of music; on the other hand, total serialism encouraged mere calculation at the composer’s desk, thereby disregarding the realm of human spontaneity allied to ways of perception. All this is not to claim that neoromanticism is the path to true creativity. When neoromanticism simply apes nineteenth-century Romanticism it merely regresses to past conventions.

True creativity in music is deeply connected to redefinition of the word “music.” Unlike “light” and “water,” the word “music” has no fixed meaning. As men and societies change, so music changes. This is why I believe that the act of composing music challenges the very nature of music, and this challenge asks us to redefine ourselves as human beings. From this the question arises as to the significance of art in general for human beings; after all, the ability of the human creature to perceive art distinguishes humankind from other creatures.

In such a context, a type of archaeological investigation into the essential nature of human beings is necessary to clarify the significance of composing music. From this vantage point, two aspects of human universality emerge: one which is derived from the genesis of art, culture, language, and mankind; another which is derived from locality, that is, from the tradition-oriented aspects of human culture. The former encompasses activities such as music, theater, ritual, rites, and so forth, where these transcend differences of race and geography.¹ In contrast, the latter is inseparable from its host language.

No matter what language one speaks, one’s way of thinking, one’s perceptions, and, to a certain extent, even one’s sensibilities are essentially ruled by that language. Metaphorically speaking, each outreach of the senses is defined by language activity. Since language, as a sieve for screening things, has its own mesh, this screening process differs from one culture to another depending on the different characteristics of the host languages. In time, the host language shapes its own culture. Thus, language activities are closely linked to issues of cultural identity.

Not long after I chose to become a composer, I came to realize that, as a Japanese, rather than unconsciously receiving my own tradition, I wished to consciously inherit² and extend it, while at the same time exploring the universal language of all human beings. However, for me, the inheritance of my tradition implied a way of thought and perception rather than simply the adoption of superficial phenomena such as the pentatonic scale, or the simple usage of traditional instruments such as the shakuhachi, biwa, and koto. In other words, for me, remaining within a tradition meant retaining a system of thinking. It follows that this broader definition of “tradition” produced, and continues to produce, diverse concrete results.
With this in mind, I have classified the basic characteristics of Japanese traditional music into five mutually relatable categories: structure of time, structure of space, gesture in sound, timbre, and relationship to language.

**Structure of Time**

Temporal structures are conceptual in nature. For example, linear time and circular time are conceptually different. The former is found in Western music in general and the latter is found in the Japanese traditional music affiliated with Buddhism.

In circular time there is no distinction between past, present, and future. These are clearly delineated in linear time. In circular time, in Jean-Paul Sartre’s words, the future arrives suddenly. One phenomenal difference exists between the Japanese traditional structure of time and that of Western time: traditional Japanese time is not based on physical movement; rather, it is based on respiratory continuity. It is thus, by comparison, far more spiritual than physical. This is true even in traditional Japanese dance music. This music is patterned after two temporal models, namely, odori and mai. In odori, which is folk-oriented, the basic rhythms are closely related to the physical movements of a dancer’s feet and hands. In mai, which is more artistic, the basic rhythms are based on the continuity of breathing. Moreover, the rhythms are based on so-called mental breathing, which is naturally more spiritual, where the performer does not count rhythmic beats but feels a kind of expansion within the continuous physical and spiritual breath. This kind of continuity often expresses a breath-less intensity on the axis of beat-less time.

In music such as Noh, these different temporal models are often overlaid on each other, producing strata of different tempi. Example 1, from *Interpenetration for Two Flutes*, I (1963), parallels this idea. Each performer maintains his own tempo, a tempo which is continuously varied according to angled lines in the score which designate accelerandi and ritardandi. Vertical lines show points of synchronization; except at these points, the two instrumental lines remain unsynchronized.

According to Dr. Daisetsu Suzuki, “interpenetration” designates a mutual relationship between A and B, such that, while each maintains its own subjectivity, there is a unity of oneness to the extent that A becomes B at the same time that B becomes A. Example 2, from *Interpenetration for Two Flutes*, II, shows an interpenetrative correspondence between two performers on the axis of uncountable time, that is, time based on respiratory continuity. The sign [[:math:]] designates the longest possible continuity within a breath.
EXAMPLE 1: *Interpenetration for Two Flutes, I*

EXAMPLE 2: *Interpenetration for Two Flutes, II*

In the first bar of Example 3, *Interpenetration for Two Percussionists* (1983), an intense, frozen silence follows a simultaneous, shouted "Ha!" (*kakegoe*), produced by performer *B* gazing at performer *A*, who raises his hands, one at a time, in tempo. The succeeding measures show how the performers move towards interpenetration.
EXAMPLE 3: Interpenetration for Two Percussionists

Two terms are used to describe strata of different tempi in Noh: mihakarai (arrangement) and ashirai (treatment). Mihakarai is performed by the Noh flutist when no synchronization with other performers, such as the chorus, is required. Only the timing of the performer’s entrance and exit is fixed, plus an assigned set of phrase patterns. Mihakarai describes the process from the performer’s point of view, that is, the music assigned to the Noh flutist between points A and B of synchronization with the chorus. Ashirai simply refers to any given result of the act of mihakarai. Example 4, Observations on Weather Forecasts for baritone and trumpet (1983), draws on the process of mihakarai. The dotted lines designate only approximate vertical synchronization.
EXAMPLE 4: Observations on Weather Forecasts

Various interactions among three performers are scored in Inter-posi-play-tion II for flute, harp, and percussion (1973). As shown in Example 5, in
EXAMPLE 5: Inter-posit-play-tion II
chain reaction, an uncountable musical continuity of intense time and a sort of "tight space" are produced. □ and ◦ indicate head inclinations, in an interrogative fashion, so that a spirit of inquiring intention creates an invisible bridge between the performers. It is this invisible bridge which produces the tight space. Such a space is analogous to what Japanese tradition calls "substantial silence" (ma).

Substantial silence has a value equivalent to sound. It is not to be confused with a pause or rest, that is, with merely the absence of sound. In the following extract from On the Keyboard (1972), Example 6, time becomes unpredictable as intense silence is created between tone clusters.

EXAMPLE 6: On the Keyboard

The temporal strata evident in ashirai give rise to the idea of polychronic time. In ordinary, monochronic, musical time, all aspects of the music, such as tempi and dynamics, tend to change together. However, in polychronic time, various different events may occur in parallel on different time axes. In Example 7, from the first movement of TIME of Orchestral Time (1976), temporal strata are created as each group of instruments responds to its own tempo and dynamic indications.
It goes without saying that the spatial structure of music is deeply linked to the temporal structure of music. Most of the structural aspects are inseparable, so many spatial elements have already been dealt with in the previous section. However, I would like to mention a special technique for making structural transitions which is found in Noh music. Example 8 shows how
one basic rhythmic pattern may be transformed into another. In the performance of utai (Noh chant), the same verse may be sung either on pattern A or on pattern B, according to the context within the Noh drama. A is called hiranori (ordinary rhythm) while B is called mitsuji (transformed rhythm). Syncopation results when the chant based on A is transformed by being based on B; further, the word syllables are accented differently, although the meaning remains unaffected.

Two musical ideas are incorporated into such a transformation: first, there is a one-to-one correspondence in meaning between A and B; second, B is topologically reassigned with respect to A. Example 9 outlines part of the temporal substructure of Projection Topologique for piano (1959), while Example 10 shows the result of this process. The short, upright lines in Example 9 correspond to the dotted lines in Example 10. These lines mark the passage of time in "measures" of \( j = 22 \). The tempo indication is set this slow to maintain, in effect, an uncountable musical time. Each "measure" is divided into equal units according to a random process: measures in line a subdivide into 6,5,0,12,7 equal units; measures in line b subdivide into 2,10,8,0,8 equal units. The numbers in parentheses \([7),(9),(1),(2),(5)\) are the same for each line; however, these numbers correspond to different durational values because the measures themselves have already been subdivided into unequally corresponding units. Dotted
lines show how \( a \) and \( b \) correspond topologically. Dark squares indicate spaces assigned to sound; the intervening spaces are assigned to silence. The composition itself is based on a simple canon. However, the effect is far from simple because the topological substructure has warped the compositional space.

**PROJECTION TOPOLOGIC**

**Example 10**

This topological approach to spatial transformation results in a plasticity of form. The opening of the first movement of *TIME of Orchestral Time* extends this idea. Example 11 shows the substructure which charts both the contours of the sounds and the duration of the silences.

**GESTURE IN SOUND**

Japanese traditional music has no harmonic system to support structures such as melodies. However, much pitch refinement exists in connection with gestural movement. For instance, for every kind of bamboo flute, as well as for plucked string instruments such as koto, shamisen, biwa, and so forth, subtle shifts in pitch as well as portamenti and glissandi become extremely important in conveying musical information. These refinements may be said to compensate for the lack of a harmonic system. Japanese culture places great emphasis on sensitivity to these gestural aspects of sound.

Consideration of the gestural aspects of sound falls under the following three subheadings:
EXAMPLE 11: *TIME of Orchestral Time*, I, SUBSTRATUM

(a) Shifting pitches (glissandi, portamenti, and so on).
(b) Shifting tempi (accelerandi, ritardandi, and so on).
(c) Significance of “small notes.”

SHIFTING PITCHES

In Japanese traditional music, because the music is not based on a harmonic system, more attention is paid to the process of bending sound than to stable, straight pitches. This is readily apparent in music written for the vertical flute, the shakuhachi. For me, there was no contradiction in adapting this old idea to the new technology of electronic music. In fact, the
EXAMPLE 12: Projection Esemplastic for White Noise
electronic medium is well suited to this process, being free of the conventions of Western traditions. Bent sounds of filtered white noise in various band widths carry the musical continuity in my early electronic piece \textit{Projection Esemplastic for White Noise} (1964) (Example 12).

\textbf{SHIFTING TEMPI}

Japanese traditional music is enriched by gradual transitions in tempi. At both Shinto shrines and Buddhist temples shifting tempi are heard in the drum rhythms. The opening of \textit{On the Keyboard} (1972), Example 13, shows gradual acceleration and deceleration used to vary the texture of the sound.

\begin{example}
\textbf{EXAMPLE 13: On the Keyboard}
\end{example}

Working with gestural ideas in sound has led me to a semiotic approach towards the nature of form. In Example 14, from \textit{A Winter Day} (1981), only one kind of temporal gesture is employed: a nonperiodic rhythmical movement deployed in strata of individual tempo fluctuations. Later in the same piece, the idea is taken a stage further with part-structured improvisation shaping the temporal microstructure.
SIGNIFICANCE OF "SMALL NOTES"

Importantly, these "small notes" are not ornamental, but gestural. The lack of an undergirding harmonic system gives rise to a shift in values concerning the transmission of musical information. "Small notes," which might be heard as simply ornamental according to a Western model, have great significance in Japanese traditional music. Example 15, from Projections on Bashō’s Haiku for chorus (1974), is modeled after Noh chant. The main notes are approached from a wide range of gestural pitches—"grace" notes, portamenti, and so on. Once again, uncountable time is based on respiratory continuity and results in a heterophonic texture. Strict vertical synchronization has been set aside in favor of layered lines with subtle time displacements. The result is an interwoven texture of vigorous and harsh energy.

EXAMPLE 15: Projections on Bashō’s Haiku
In *Domain for Solo Flute* (1978), Example 16, “grace” notes are used to intensify the attacks of notes they precede. Even in just one melodic phrase, great care is taken to vary dynamics, tempi, and timbres. This care reflects the Japanese nature of the music, a music fundamentally different from music developed within the Western tradition.

Example 17 is taken from the second movement of *A Winter Day*. In this example the small notes are more important than the sustained melodic line. The “grace” notes are emphasized by *sf*’s and create a subtle heterophony. These “small notes” carry much of the musical information. My semiotic approach to composition underlies the construction of such passages.

**Timbre**

Rather than simple change, the most important characteristic of timbre is timbral transformation. In Japanese traditional music there is no clear distinction between pitched sound and noise. There is an interpenetration between sound and noise, as exemplified in performances on shakuhachi. This attitude seems to be closely linked to the Zen statement, *Issoku ta, ta soku ichi*, which states that one is equal to many and many are equal to one. That is to say, a single sound has a complex component, and a compound sonority may often be heard as just one sound.

For this reason, timbre, as the microstructure of sound, is more important than a harmonic system. Timbre speaks directly to the senses. In music, timbral information sometimes dominates over structural information precisely because of its perceptual immediacy. Example 18, from *Projection for String Quartet* (1970), shows the beginning of a piece where, in
C Lento lento

For this section C, the other transposed parts are appended for Flute, Clarinet and Harp.

Order of the entrances for each instrument, with 1-2 seconds in:


It is desirable for each player to maintain approximately the same distance to the others after his entrance.

Vibraphone and Electric Piano should have "sempre pedal" throughout this section and these two instruments may be required louder dynamic than the indicated, for major notes.

*only potential instruments.

EXAMPLE 17: A Winter Day, II
EXAMPLE 18: Projection for String Quartet

contemporary idiom, noisy sound is produced by extreme bow pressure on slightly shifting pitches. The idea of compound sounds heard as single sonorities is realized in Cosmos Haptic II (1986), Example 19.

In Example 2, the sign ◊ above a note designates a strong accentuation without tonguing, a technique peculiar to the Noh flute. This is an example of a timbre which is intrinsic to a particular instrument. Example 20, from Domain for Solo Flute, shows another characteristic way of articulating sound by pronouncing “fow” or “tyo” while attacking the note.

RELATIONSHIP TO LANGUAGE

Language naturally conveys verbal information. However, once language is articulated in sound a nonverbal communication emerges, a metacommunication in the spoken language. As each language is different, so each means of metacommunication is different.
COSMOS HAPTIC II
—Transfiguration—
for piano

Joji Yuasa

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EXAMPLE 19: Cosmos Haptic II

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EXAMPLE 20: Domain for Solo Flute

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Two aspects of metacommunication have interested me. One is the distinction between verbal information and the information carried by a speaker’s tone of voice. For example, one cannot say “pardon me” arrogantly without undercutting the original meaning of the phrase. This aspect is closest to musical information carried by the speed and intensity of pitches. The second aspect which I have explored is closest to timbre in music. It is found in onomatopoeia. For example, the term “ping-pong” carries sonic information, and most listeners hear the word as high–low in pitch.

Example 4, given earlier, from Observations on Weather Forecasts for baritone and trumpet (1983), is one particular instance of my exploration of metacommunication. In this piece, intense emotional expression is superimposed on what is usually understood to be dry and objective verbal description. Electronic manipulation of sound lends itself to metacommunication. With this in mind, I have composed several works for tape and voice, such as Voices Coming for tape (1969) which consists of “Telephonopathy,” “Interview,” and, “A Memorial for Two Men of Peace, Murdered.”

In his book, Hidden Dimensions, Edward T. Hall defines four different communicative distances for human discourse: intimate (as lovers), personal (one-on-one), social (three or four, as at a party), and that of public address (giving a speech). To these four I have added a fifth, that which addresses the infinite (to God, for example). Calling Together (1973) is a theatre piece for mixed voices which improvisationally explores the metacommunication induced at these distances; that is, the performer’s tone of voice is specified according to one of these five distances, but the verbal information, in any language, is freely improvised.

In general, there is no relationship between the phonetic content of a word and its meaning. Only in the domain of onomatopoeia is there a clear relationship. Two of my compositions explore this domain: Projection Onomatopoeic for mixed chorus (1979), and Playsong on Onomatopoeia for children’s chorus (1985). Composing these works was an interesting experience, since the onomatopoeic words made certain musical demands, and my musical imagination required certain arrangements and orderings of the words. The work was made easier by using Japanese as the source language, for Japanese contains many onomatopoeic words—many more than European languages.

I have extended my interest in the timbral characteristics of words to include a synthesis between voice and composed white noise. For example, The Sea Darkens for computer-generated tape (1986), uses as text haiku by Bashō in Japanese and English. Over the course of the piece, the two languages become infused with white noise. More recently, I completed Nine Levels by Ze-Ami for quadraphonic computer-generated tape and seventeen-
piece chamber ensemble, a piece commissioned and performed by IRCAM in 1988. In this piece the timbral component consists of fifteen to twenty-five narrow bands of white noise fed into a voice-print of Ze-Ami’s text. The intonation and intelligibility of the words remain reasonably intact, but the original voice component has been replaced by glissandi and narrow-band white-noise harmonies. At times the text is slowed down, and at certain speeds it resembles Noh chant.

Throughout my career I have remained convinced that a composer’s music reflects his individual cosmology, and that this cosmology encompasses both his cultural identity and the collective consciousness of the society which shares his language. In other words, I consider music as a metaphor or a metonymy of a composer’s cosmology. In this respect I define my own identity as based on Japanese culture while, at the same time, maintaining a global point of view as a human being on this planet.

NOTES

1. I am indebted to André Jolivet for attaching importance to the cosmic “topos” where ritualistic activity occurs; also, to Edgard Varèse, in Deserts for instance, where it seems to me that man is invited to examine himself and wherein religion is recognized as an essential aspect of humanity.

2. I remain convinced that choice is a necessary component in inherited tradition. In my case, I have committed much to Noh, not only because I once studied it, but also because it is one of the most refined and profound of all traditional Japanese art forms.

3. The basic rhythmic patterns in Noh seem to have eight beats. However, the eight-beat unit is designed to accommodate word syllables, and eventually, it has almost no musical character. This eight-beat unit is best thought of as eight units of one beat each. The length of each beat is freely varied according to the prosody of the text. Such a structure is only conceivable within circular time.

4. Gagaku may be an exception to this general rule. It certainly sustains complex harmonies. However, from my personal point of view, Gagaku belongs more to the ancient music of China and Korea; it has simply been well preserved in the courts of Japan.