Dissonance in SPACE AUDIATION

Edwin E. Gordon
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PART 1

Audiation and Space Audiation

The word *audiation* was coined forty years ago in about 1975. It was an outgrowth of research in music learning theory. During the course of examining results of studies, it became apparent accomplished musicians engage in more than simply performing music. They audiate much more than what they perform. Although all is not known, it is evident sensitive musicians anticipate silently what they have performed moments ago, as well as years ago, and what they are going to perform all the while they momentarily are performing something different. Improvisers are consummate examples of the process. Accomplished members of an audience also hear relevant multiple essentials of music to which they are listening. Though it may seem contradictory, what has been described is hearing sounds silently. It is called *audiation*. Audiation of music is an activity similar to thinking in language.

Sound itself is not music. Sound becomes music through audiation when, as with language, sounds are translated in the mind and given meaning. Meaning given these sounds is different depending on the occasion as well as different from meaning given them by other persons. Audiation is the process of assimilating and comprehending (not simply rehearing) music heard in the immediate past or days, weeks, months, or years ago. Musicians audiate also when assimilating and comprehending in their minds music that may or may not have been heard but is read in notation, composed, or improvised.
Aural perception takes place when sound is reacted to without comprehension the moment it is produced. Sound is audiated only after it is aurally perceived. In aural perception, persons are dealing with immediate sound events. In audiation they are attending to delayed musical events. Moreover, compared to what is often called musical imagery, audiation is a more profound process. Musical imagery casually suggests a vivid or figurative picture of what music might represent. It does not require assimilation and comprehension of intrinsic elements of music as does audiation.

Audiation may occur when listening to, recalling, performing, interpreting, creating, improvising, reading, and writing music. Though it may seem contradictory, persons can actually listen to music while at the same audiating music. Most persons automatically think about what has been said and predict what will be said while at the same time listening to or participating in conversation. Listening to music with comprehension and listening to speech with comprehension involve similar operations. Further, in notational audiation, as you will begin to give meaning to words you are reading now only after you have read them, likewise you give meaning to music notation not as but only after you have seen it.

When listening to speech we give meaning to what was said by recalling and making connections with what was heard immediately before. At the same time we are anticipating or predicting what will be heard next based on experience and understanding. Similarly, when listening to music we give meaning to what was newly heard by recalling what was heard on earlier occasions. At the same time we are anticipating or predicting what we will be hearing next based on music achievement. In other words, when we are audiating as we are listening to music we are summarizing and generalizing content of music patterns in its confirmed context as a way to anticipate or predict what will follow. Every action becomes an interaction. What we are audiating depends on what we have audiated. As audiation develops, it becomes broader and deeper and, thus, reflects more on itself.
Some musicians are capable of audiating one piece of music while listening to or performing another. Others are capable of audiating inner and lower parts of music while they are audiating its melody. Musicians who are improvising a melody may comprehensively audiate chords underlying a melody or a melody that embellishes an established chord progression. Jazz instrumentalists, scat singers, rap, and blue grass performers may audiate a phrase from one piece of music and substitute it for the original phrase in music they are performing. They, like some, may not be able to explain in technical or theoretical terms what they are audiating. Whereas most musicians who perform jazz through imitation can perform in only one style, those who audiate can comfortably perform jazz in two or more styles; for example, both swing and bebop. Composers who audiate, those who are not steadfastly dependent on an instrument while composing, simultaneously audiate several components of music they are creating, such as melody, harmony, phrasing, and instrumentation.

Audiation, as opposed to imitation—which is a preliminary step in developing audiation potential—are often confused. Imitation, sometimes called inner hearing, is a product whereas audiation is a process. It is possible and unfortunately too often the case music is performed by imitation without engaging in audiation. It is not possible to imitate and audiate at the same time. Learning by rote is not the same as learning with understanding, whether the subject be history, mathematics, or music.

Like imitation, memory (not memorization) and recognition are part of audiation processes. Alone, however, they are not audiation. Persons can recognize music even when it is performed with some incorrect pitches and durations and still not be able to audiate it. They might be aware of at most only its melodic contour and rhythm. Many persons who recognize “Jingle Bells” are unable to sing its resting tone, identify and move to its fundamental beats, hear its tonality and meter, or specify chord progressions underlying its melody.

Most students and probably as many musicians memorize music without audiating contextually. Memorizing music on an instrument is
primarily related to fingerings and other technical matters, not to audiation. Many persons who can play a melody on an instrument are unable to sing what they have played; play a variation of the original melody; play the melody in a different keyality, tonality, or meter; play the melody with alternate fingerings; or demonstrate with body movement phrases of the melody. If they cannot do these things, they are not audiating what they have performed. It is as if they were reciting words they had memorized without ascribing meaning to them.

The foregoing is a summary of the nature of audiation. A full account of audiation is an integral part of Learning Sequences in Music: A Contemporary Music Learning Theory. A more recent book, an addendum to the former, is Space Audiation. In the earlier book, audiation was explained broadly in terms of music skills, tonalities, and meters. Regrettably, however, I was unaware of the integral importance of space audiation. In the recent book, space audiation is discussed in relation to rhythm, melody, harmony, improvisation, creativity, and expression and interpretation. There is reference also to music notation, early childhood music, and instrumental music. Now, in this current book, dissonance in space audiation is the sole topic. It was not purposely overlooked in the previous book. Undeniably, importance of dissonance in space audiation became obvious with ongoing empirical study. Its significance cannot be overemphasized.

Silent auditory reaction is described as space audiation. It is interior motion in the mind as compared to exterior movement with the body. Space audiation is a template for accuracy and sensitivity in musical time. Flexibility is the essence of space audiation whereas strictness exemplifies classical audiation. To perform in an expressive musical manner, beats are not audiated linearly in natural or musical time. Macrobeats, micro-beats, and rhythm patterns are audiated internally in the mind in circular motion without center or boundaries. The three essentials are superimposed simultaneously on one another. They momentarily are audiated expressively as a group of no specific phrase or section length and are
not separately distinguishable. Meter, in terms of microbeats, however, is continually audiated and sustained unconsciously. In contrast, counting beat pulsations and reciting individual note names and values are nonfunctional. Imitating, memorizing, and rehearsing what will be performed, if attempted, defeats motion in space audiation.

Note values are best considered suggestions. For artistic performance, durations of notes are fluid, not frozen. When values are not taken literally or rendered precisely, resultant flexibility offers and creates exceptional opportunities for space audiation. It is detrimental for teachers and conductors to insist notes be given so-called full count.

Space audiation skills may be developed when performing with or without music notation but best when improvising. Listening to and feeling what is intended to be performed is a preliminary step in physically improvising in space audiation. Particulars of what will be performed occur unsurprisingly without forethought. The body usually moves in a free flowing, not absolute, manner without keeping time physically. Use of a baton and metronome or tapping feet counteract development of space audiation. Dance as opposed to free flowing spatial movement is also a detriment to acquiring feeling for motion in space audiation. In routine music activities, conductors using regimented arm patterns and drummers who consistently perform loud macrobeats or microbeats are undesirable necessities for many persons. They keep physical time for listeners and performers who are incapable of doing it for themselves, never having given space audiation thought.

In conventional instruction, rests are taught as periods of silence. In space audiation, however, rests do not exist independently. When audiating space in performance, motion of rests is combined with macrobeats, microbeats, and rhythm patterns. They are integral extensions of beats and patterns that link and bind all three essentials together into a complete interconnected entity. Rests belong to patterns they follow or precede. Natural time separates beats and patterns whereas motion in space audiation connects and unifies them.
What are commonly thought of as rests are immersed in totality of rhythm and primarily are responsible for creating interpretation and phrasing of music. Meter and artistry in rhythm emerge not on distinct beats but in periods of continuous space that occur imperceptibly and unconsciously between macrobeats, microbeats, and rhythm patterns. That is manifest when performers are told to stop looking at notation. Instead, listen and feel. Then place notes in space where they offer sensitive artistic phrasing that results in series of subtle agogic accents. Though fashions in art are in constant change, style preserved in motion in space audiation remains constant.

Space audiation is not an integral part of pedantically reading music notation. In space audiation, the mind does not concentrate on one note or rhythm or tonal pattern at a time in natural time. The outmoded method of counting and thinking about individual beats, pitches, and patterns one after the other undermines musicality. Patterns performed and those to be performed or omitted are audiated concurrently as they relate collectively in space to macrobeats and microbeats, all being linked in motion to one another. To strain to give musical meaning to a single rhythm patterns without reference to previous and forthcoming ones is strictly a mechanical process. Sensitive interpretation is cast aside.

Meter and tonality, whether sustained or modulatory, are ever present without effort in motion in auditory space as macrobeats, microbeats, rhythm patterns, and tonal patterns are combined by performers. Listeners respond attentively to ensuing sounds of performers who are engaged in space audiation. The situation is clearly different for listening to contemporary music when misguided performers and composers have endeavored to reject tonality and meter. With regard to rhythm in so-called arrhythmic and atonal music, unfortunately counting and attending to separate beats and patterns seem to be a necessity.
Space audiation has been described as inherently combining various constituents of music without forethought when listening and performing. For example, macrobeats, microbeats, and tonal and rhythm patterns are attended to collectively and unconsciously heard and treated as units rather than singular components. Dynamics and tone quality may also be part of the totality. Perhaps the most elusive and distinctive feature of space audiation occurs when dissonance is superimposed upon and morphed into an integral component of the aggregate. Dissonance in space audiation is unique in adding sonorous density to the multiple dimensionality of space audiation.

Dissonance is most obvious when artistic melodic accented and unaccented suspensions and resolutions emerge contrapuntally and in conjunction with and over chords progressions. Another type of dissonance includes a single pitch or a series of pitches constituting a tonal pattern interacting with one or more rhythm patterns. Although suspensions generally include pitches outside the tonality, pitches not in a chord may prompt dissonance. Granting it may be thought of as multimetric, performing, for example, duple meter contrary to triple meter or usual meter contrary to unusual meter, may be conceptualized as forms of dissonance. Two tempos opposing each other, which is multitemporal, may also sound dissonant. One keyality in contrast another or one tonality in contrast to another, such as major and minor, are called multikeyal and multitonal. They, too, may be considered a form of dissonance.

PART 2

Dissonance in Space Audiation
PART 3

Performance of Dissonance in Space Audiation

Extraordinary performers and astute listeners are familiar and comfortable with space audiation. For a variety of reasons most others are not. This is especially apparent with dissonances in space audiation.

There are a diversity of reasons for this. For example, adults have a penchant for moving limbs of young children to keep musical time while listening to music. Similar malfeasance is manifest in elementary school where children are taught to memorize rote songs and dance steps so as to keep laborious musical time. Children instinctively oppose these activities and as a result their muscles become resistant. It is not easy for them at a later age to relax muscles and be flexible in spatial audiation. Most retain rigidity in adulthood.

Moreover, persons of all ages are typically taught to count while learning to read rhythm notation. This occurs when playing a music instrument, piano being no exception. Foot tapping is a required concomitant in attempting to give precision to macrobeats. Percussion instructors usually consider rudiments - such as rolls, paradiddles, and flams – as necessary first steps in becoming proficient with drum sticks. Instruction in music theory emphasizes a regimen as well. Inappropriately, formality and presumed precision prevail. That outcome is prevalent in much popular music. In fact, drum machines are programmed to be loud and...
repetitious with exactness. To be supple is thought of as a mistake when performing music.

Though it is arduous to relearn and change habits, there are approaches, particularly with regard to dissonance in space audiation, to amend established learned tendencies. Elasticity may be effortlessly developed with proper guidance.

Experiencing free flowing, continuous spatial movement in conjunction with deep breathing is essential as a first step in understanding dissonance in space audiation. Regardless of style, rhythm in music is incomplete without free, sustained, fluid, and continuous spatial movement. When continuous unbound flow is interrupted in audiation, it is also interrupted in performance. Thus, it counteracts relevant spatial movement.

Counting emphasizes time, but ignores space, weight, and flow. For a performer who does not audiate weight, foot tapping may temporarily solve an immediate problem of keeping time in ensemble playing but it will contribute little to long term development of musicianship. Space audiation is lacking. Conductors with integrity assist musicians in creating musical performances by shaping music in response to an entire ensemble’s natural feeling for weight and flow, thus recapturing those feelings so familiar in early childhood.

Of the four effort motions, space is imperative for artistically implementing dissonance. In the following part of the book there are tunes notated with dissonances and chord symbols specially composed for rendering sensitive interpretation and for making musicians comfortable with dissonance in space audiation. The brief snippets emphasize dissonances. The tunes may be sung or performed instrumentally. Harmonic accompaniments, as indicated by chord symbols, may be performed on any chording instrument, such as guitar, synthesizer, or piano. The chord is sustained, performed only once, that is, without recurring macrobeats. When harmonic accompaniment is provided vocally and there are only three singers, the fifth of the chord is omitted. Recommendations for performing dissonance suitably in space audiation follow.
Before singing or playing, establish in audiation tonality of the tune and at the same time physically audiate a feeling of meter and tempo for the tune. When performing, however, macrobeats are not in strict or precise musical time. Although macrobeats are audiated in exact musical time, in artistic rendition of spatial dissonance all are not performed in that manner. They bend and blend in musical time. In comparison to precise positions of macrobeats, some macrobeats are slightly anticipated and others marginally delayed in space. Think of that effort as a specialized form of improvisation.

Because in performance of dissonance in space audiation macrobeats are gracefully anticipated and delayed, the stylistic and stimulating result is in sharp divergence from macrobeats purposely performed in clock time. All that has been suggested involves nuances, that is, variations from the norm of accurate macrobeats. It makes a listener imagine nonexistent space. Not all macrobeats, of course, are marginalized. Artistic interpretation is enhanced by contrasting nuanced macrobeats with those that are not modified. It exemplifies the difference between use of a clock and an hour glass.

Melodic patterns are a combination of rhythm patterns and tonal patterns. Spatial dissonance is most apparent in rendition of melodic patterns. Artistic deviation in melodic patterns is achieved by shaping them to accentuate spatial dissonance. Not all note values are relative in traditional terms. The inconsistency of performance of notes of the same value always performed alike detracts from spatial dissonance. Spatial dissonance is best characterized by note values lacking uniformity but conveying a sense of flexibility. The result is a feeling of stretched and contracted musical time.

The notated tunes are not intended to be exercises. They offer the best way for commanding spatial dissonance expertise when each is performed in a variety of ways. Thus, they are performed with improvised flexibility with no attempt for precision. Experimentation with dynamics, tempo, repetition, sequence, sameness and difference, legato
and staccato interpretations within and between patterns are representative of appropriate variations. Dissonances within patterns have best appeal when approached with agogic accents. Silent space, variable dynamics, and resolutions exemplify contrasts. Rests, real and imagined space, are elongated and shortened not necessarily in accordance with their symbolic values.

Performance of dissonant and unusual harmonic progressions is unrivaled when it does not attract special attention and divert awareness from spatial dissonance. Smoothness in their continuity is fundamental. Improvisation of additional pitches and durations is advantageous when complementing spatial dissonance. Transposition of tunes does not detract from dissonant qualities.
PART 4

Tunes

Definitions of chord symbols used in the tunes which follow:

<table>
<thead>
<tr>
<th>CHORD</th>
<th>DEFINITION</th>
<th>CHORD</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Am</td>
<td>A C E</td>
<td>D7</td>
<td>D F# A C</td>
</tr>
<tr>
<td>A°</td>
<td>A C E♭</td>
<td>D♭</td>
<td>D♭ F A♭</td>
</tr>
<tr>
<td>B♭7</td>
<td>B D♯ F♯ A</td>
<td>D♭7</td>
<td>D♭ F A♭ C♭</td>
</tr>
<tr>
<td>B♭</td>
<td>B♭ D F</td>
<td>Dm</td>
<td>D F A</td>
</tr>
<tr>
<td>B♭♭7</td>
<td>B♭♭ D F A♭</td>
<td>Dm♭7</td>
<td>D F A C</td>
</tr>
<tr>
<td>B°</td>
<td>B D F</td>
<td>E7</td>
<td>E G♯ B D</td>
</tr>
<tr>
<td>C</td>
<td>C E G</td>
<td>F</td>
<td>F A C</td>
</tr>
<tr>
<td>C7</td>
<td>C E G B♭</td>
<td>Fm</td>
<td>F A♭ C</td>
</tr>
<tr>
<td>Cm</td>
<td>C E♭ G</td>
<td>G</td>
<td>G B D</td>
</tr>
<tr>
<td>C°</td>
<td>C E♭ G♭</td>
<td>G7</td>
<td>G B D F</td>
</tr>
</tbody>
</table>
PART IV: Tunes

9. C F E7 Am C Db F C

10. C D F E7 Am Bb7 F C

11. Cm Fm Dm Cm

12. C Bb7 A7 A7 F7 Eb7 C

13. C F G7 C G7 C

14. C B7 Dm7 Bb7 F Db7 F C

15. C G7 C Fm C G7 C

16. Cm Fm Cm G7 C

16.
17. C F C F Dm C

18. C° B° A° G
### Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Audiation</strong></td>
<td>Hearing and comprehending in one’s mind sound of music not, or may never have been, physically present. It is not imitation or memorization. There are six stages of audiation and eight types of audiation.</td>
</tr>
<tr>
<td><strong>Aural Perception</strong></td>
<td>Hearing music when sound is physically present.</td>
</tr>
<tr>
<td><strong>Content</strong></td>
<td>Tonal patterns and rhythm patterns constituting music.</td>
</tr>
<tr>
<td><strong>Context</strong></td>
<td>Tonality and meter of music comprising component patterns of that music.</td>
</tr>
<tr>
<td><strong>Do Signature</strong></td>
<td>Traditionally called <em>key signature</em>. However, it does not indicate any one tonality or keyality. It does indicate where do is found on the staff.</td>
</tr>
<tr>
<td><strong>Improvisation</strong></td>
<td>Spontaneous audiation and use of tonal patterns, rhythm patterns, and harmonic patterns and progressions with restrictions.</td>
</tr>
<tr>
<td><strong>Intact Macrobeat</strong></td>
<td>Macrobeat in unusual meter not long enough to be divided into microbeats. It can be divided into only one or more divisions of a microbeat. An intact macrobeat is the durational equivalent of a microbeat.</td>
</tr>
<tr>
<td><strong>Key Signature</strong></td>
<td>Actually a <em>do</em> signature. A key signature is seen in notation whereas keyality is audiated. A key signature does not indicate any one keyality. For example, the key signature of three flats may indicate E♭ keyality in major tonality, C keyality in harmonic minor or Aeolian tonality, F keyality in Dorian tonality, G keyality in Phrygian tonality, A♭ keyality in Lydian tonality, B♭ keyality in Mixolydian tonality, and D keyality in Locrian tonality. Nevertheless, although <em>do</em> is not resting tone in all of those tonalities, E♭ is <em>do</em> in all of them.</td>
</tr>
</tbody>
</table>
Keyality

Pitch name of the tonic. Keyality is audiated whereas a key signature is seen in notation. C is keyality in C major, in C harmonic minor, in C Aeolian, in C Dorian, in C Phrygian, and so on. Tonic is associated with keyality whereas a resting tone is associated with tonality.

Macrobeats

Fundamental beats in a rhythm pattern. In usual duple meter in 2/4, quarter notes are performed or are underlying macrobeats. In usual triple meter in 6/8, dotted quarter notes are performed or are underlying macrobeats. In usual triple meter in 3/4, dotted half notes are performed or are underlying macrobeats. In unusual meters in 5/8 and 7/8, performed or underlying macrobeats are combinations of quarter notes and dotted quarter notes.

Measure Signature

Traditionally called time signature or meter signature. However, measure signatures indicate neither meter nor time, only fractional values of whole note found in a measure. Because measure signatures are enrhythmic, a measure signature cannot indicate any one meter. Tempo markings and metronome markings indicate tempo, measure signatures do not.

Melodic Pattern

Combined tonal pattern and rhythm pattern.

Meter

Usual meter is determined by how macrobeats of equal length are divided. There are three types of usual meter. When macrobeats are divided into two microbeats of equal duration, the result is usual duple meter. When macrobeats are divided into three microbeats of equal duration, the result is usual triple meter. When some macrobeats are divided into two and others are divided into three microbeats, and not all microbeats are of equal duration, the result is usual combined meter. Unusual meter is determined by how macrobeats of unequal temporal lengths, some of which may be intact, are grouped. There are four types of unusual meter unusual paired, unusual unpaired, unusual paired intact, and unusual unpaired intact.
**Microbeats**

Divisions of a macrobeat. The following are examples. In usual duple meter in 2/4, groups of two eighth notes are performed or are underlying microbeats. In usual triple meter in 6/8, groups of three eighth notes are performed or are underlying microbeats, or in usual triple meter in 3/4, groups of three quarter notes are performed or are underlying microbeats. In unusual meters in 5/8 and 7/8, groups of two eighth notes and groups of three eighth notes are performed or are underlying microbeats.

**Movable Do Syllables**

Tonal system in which placement and position of *do* are dependent on keyality. For example, in major tonality, C is *do* in C keyality, D is *do* in D keyality, and so on. Ascending chromatic syllables are *do* *di* *re* *ri* *mi*, *fa* *fi* *so* *si* *la* *li* *ti* *do*. Descending chromatic syllables are *do* *ti* *te* *la* *le* *so* *se* *fa* *mi* *me* *re* *ra* *do*. In the immovable or fixed *do* system, regardless of keyality, C is always *do*. The tonal syllable system used in learning sequence activities is movable *do* with a *la* based minor.

**Neutral Syllables**

Nonsense syllables, rather than tonal syllables or rhythm syllables, used to perform patterns.

**Resting Tone**

Sometimes referred to as a *scale tone* or *home tone*. Tonal center or centers to which a piece of music gravitates. Resting tone is specified by a movable *do* syllable in the movable *do* system with a *la* based minor. Tonality has a resting tone whereas keyality has a tonic.

**Rhythm**

Consists of three fundamental parts: macrobeats, microbeats, and rhythm patterns. In audiation, microbeats are superimposed on macrobeats and rhythm patterns are superimposed on microbeats and macrobeats.

**Rhythm Pattern**

Two or more durations in a given meter audiated sequentially and forming a whole.
**Rhythm Syllables**   Names chanted for different durations in a rhythm pattern. Rhythm syllables used in learning sequence activities are based on beat functions (macrobeats and microbeats) and divisions of beats rather than on time-value names of notes.

**Space Audiation**   Subjective spatial flexibility in interpreting objectivity in music.

**Syllable Names**   For example, syllable names in a tonal pattern are do so, and syllable names in a rhythm pattern are du ta de ta.

**Tempo**   1) Speed at which rhythm patterns are performed and 2) relative lengths of macrobeats within rhythm patterns.

**Tonal Pattern**   Two, three, four, or five pitches in a given tonality audiated sequentially and forming a whole. Eight pitches in a diatonic scale comprise at least two tonal patterns.

**Tonal Syllables**   Names sung for different pitches in a tonal pattern. Tonal syllables used in learning sequence activities are based on movable-do with a la based minor, not do based minor.

**Tonality**   Determined by a resting tone. If do is resting tone, tonality is major; if la, harmonic minor or Aeolian; if re, Dorian; if mi, Phrygian; if fa, Lydian; if so, Mixolydian; and if ti, Locrian. A tonality is always in a keyality but a keyality may not be in a tonality.

**Unusual Meter**   Four types of meter in which macrobeats are of unequal length, Regardless of whether they are audiated in pairs or more than a pair, whether some are intact, or whether they are divided into two or three microbeats of equal length.

**Unusual Paired Intact Meter**   Meter that results when macrobeats of unequal length are audiated in pairs, and at least one macrobeat is intact.
Unusual Paired Meter

Meter that results when macrobeats of unequal length are audiated in pairs. Some macrobeats are divided into two and others into three microbeats of equal length.

Unusual Unpaired Intact Meter

Meter that results when macrobeats of unequal length are audiated in more than a pair and at least one macrobeat is intact.

Unusual Unpaired Meter

Meter that results when macrobeats of unequal length are audiated in more than a pair. Some macrobeats are divided into two and others into three microbeats of equal length.

Usual Combined Meter

Meter that results when macrobeats of equal length are audiated in pairs. Some macrobeats are divided into two and others into three microbeats of unequal length.

Usual Duple Meter

Meter that results when macrobeats of equal length are audiated in pairs. Each macrobeat is divided into two microbeats of equal length.

Usual Meter

Three types of meter in which macrobeats of equal length are audiated in pairs. Macrobeats are divided into two or three microbeats of equal length or into two and three microbeats of unequal length, depending on meter.

Usual Triple Meter

Meter that results when macrobeats of equal length are audiated in pairs. Each macrobeat is divided into three microbeats of equal length.
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Edwin E. Gordon ....

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Afterword

The foregoing will most likely be reviewed several times after initial reading. Detailed explanations in three other books will be found to be relevant: 1) Chapter 1, Audiation, in Learning Sequences in Music: A Contemporary Music Learning Theory, 2) Inseparability of Space and Time in Rhythm Improvisation, and 3) Space Audiation.

Frequent use of the Glossary will provide advantageous supplementary information. Perhaps most important is flouting rigidity and frequently engaging your entire body in free flowing, continuous movement in space.

Without doubt, understanding space audiation and the role of dissonance in space audiation is in its infancy. More study and explanations are essential.