

# Quartet for the End of Time: Messiaen's Musical Language

## Rhythm

Inside Chamber Music  
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Stravinsky: from *Sacre du Printemps (Danse sacrale)*

A B A+ B  
(diminution of A)

from the Hindu rhythm *simhavikridita*:

5 A B A B A B A B A B  
(A augments and diminishes progressively, B does not change)

Messiaen points out:  
Three quarter notes (A) and then an "inexact"  
diminution (B), which is also a  
non-retrogradable (palindrome) rhythm.

10 *Ragavardhana*: Reversed A B

### ADDED VALUES:

13 Simple version:

Rhythms with added values:

16

### Non-Retrogradable Rhythms

19 A B A B  
5-note melodic pedal  
15-value (articulations) rhythmic pedal, consisting of two non-retrogradable rhythms (A and B)  
5-note whole-tone melodic pedal is played 3 times to complete the 15-value rhythmic pedal  
This is played by the cello in *Liturgie de cristal*

Starting with his "interpretation" of the *ragavardhana*, Messiaen uses added values, diminution, and augmentation to create a rhythmic pedal for the *Liturgie de cristal* piano part. These 17 articulations (values) are repeated while a harmonic pedal of 29 chords is repeated, creating a "rhythmicized harmonies". (This is similar to the Medieval concept of *isorhythm*, which Messiaen claimed to know nothing about at the time.)

MODES OF LIMITED TRANSPOSITION

24 Mode 1: Whole Tones (only two transpositions)

25 Mode 2: Octatonic (only three transpositions)

Two chords of the Mode 2 chosen as typical by Messiaen. Second chord contains all 8 notes. A favorite harmony: V7 added 6th and 9th

(Mode is divisible into 2 diminished 7th chords; Major, minor, and dominant chords on 4 notes only. No tonic/dominant relationship. Tritone sound permeates mode.)

(tonal chords move by minor thirds and tritones)

27 Mode 3: (only four transpositions)

Typical chords derived from Mode 3

29 Modes 4, 5, 6, and 7 are all transposable six times.

4. 5. 6. 7.

(truncated version of Mode 4)

(10 notes, missing only a tritone; here E/Bb)

Here is a five-note pattern which opens Mussorgsky's *Boris Godounov*, and which so inspired Messiaen:

31

Here, Messiaen transposes the five notes into Mode 2 of limited transposition.

(Only the lowest note, the tonic, of the tune is lowered to achieve this.)

Messiaen's own transformation of the Boris motif, using his harmonies from Mode 2 and his added-values.

33

Messiaen: "In old French songs, and especially in Russian folklore, we find some remarkable melodies. Let us remember them, to pass them through the deforming prism of our language. The Russian song, *Point n'était de vent*, haunted my youth; we find there again the five notes of *Boris* that inspired our first formula of melodic cadence:

36

Let's apply the "deforming prism" of Messiaen's language to Old McDonald Had a Farm:

44

Here is Old McDonald, just the opening, with Mode 2 harmonies, added values, and Mode 2 melodic alteration.

48

55

Musical notation for measures 55 through 60. The system consists of two staves: a treble clef staff on top and a bass clef staff on the bottom. Each staff contains six measures. In every measure, there is a single horizontal line segment positioned on the second line of the staff, representing a whole rest. The two staves are connected by a brace on the left side.

61

Musical notation for measures 61 through 65. The system consists of two staves: a treble clef staff on top and a bass clef staff on the bottom. Each staff contains five measures. In every measure, there is a single horizontal line segment positioned on the second line of the staff, representing a whole rest. The two staves are connected by a brace on the left side. The system concludes with a double bar line at the end of the fifth measure.