The Compositional Techniques of Messiaen's *Le Merle Noir*

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Article:

Olivier Messiaen infused compositions with a love of nature and the Catholic faith. Messiaen (1908-1992) stayed away from fashionable trends and schools, opting to develop a highly personal style for rhythmic complexity, rich tonal colors, and unusual harmonic language.

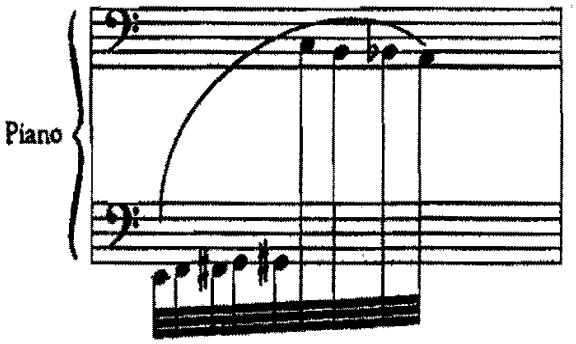
Written in 1951 as an examination piece for the Paris Conservatory Le *Merle* Noir, an example of Messiaen's compositional process, combines additive rhythm with materials derived from bird calls. Messiaen commented that he used bird songs either as an exact musical portrait or compositional material.

Le *Merle* Noir for flute and piano calls for an improvised feeling and good coordination of the flute and piano. Familiarity with Messiaen's compositional process will help clarify the structure of this piece that may seem random at first.

Messiaen once said, "The music of our time is quite a natural continuation of the music of the past; doubtless there are changes, but no rupture." The piece incorporates traditional elements, Messiaen's transcriptions of blackbird calls, and uses motives derived from tone rows. Le *Merle Noir* falls into an ABA'B' Coda pattern, with rests framing each section. The flute sounds like a blackbird in the A and N sections and so has no metric pattern. The B and B sections are more structured and in canonic style. The Coda has only fragments of the bird calls and the composer uses strict compositional techniques to organize the pitches and rhythms.

Two main melodic materials, a chromatic motive and the tritone, run throughout the composition. The initial piano figure of nine chromatic notes, five ascending and four descending, contains structural ideas later used in the piece.

Measure 1, Chromatic Ascending motion

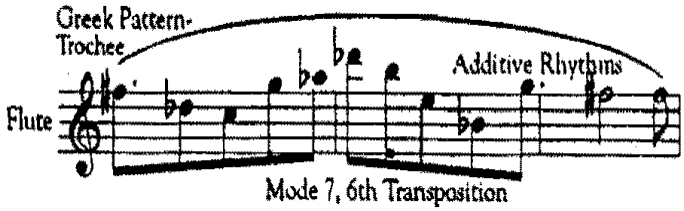


The chromatic motive in measure 1 starts with a low E moving to G and is repeated by the flute at the end of the first cadenza in an upward run. The second cadenza ends with a downward chromatic passage that ends on E, spanning a perfect fifth similar to the piano inversion in measure 1. The downward motion at the end of the flute cadenza concludes the improvised song of the bird.

First Cadenza, Measure 8

Second Cadenza, Measure 53

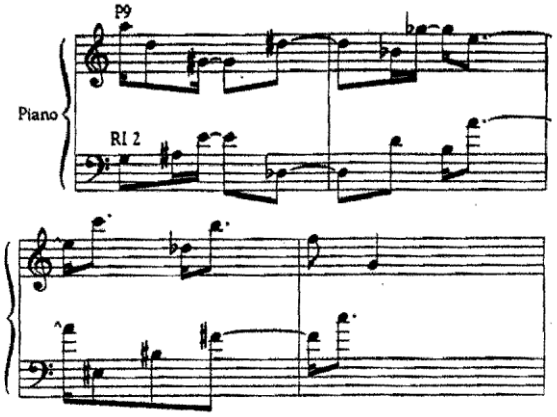
The material for the B section is controlled through the composition techniques of additive rhythms, Greek irrational patterns, and modes of limited transposition. Greek irrational patterns are alternations between short and long rhythms, such as short-long (Troche), short-short-short (Tribrach), long-short-long (Cretic), short-long (Iambic), short-short-long (Anapest), and long-long-short (Antibacchic). The modes of limited transposition are scale patterns that follow a symmetrical arrangement and produce only a small number of distinct transpositions. One of the seven modes of limited transposition is the whole-tone scale, with only two distinct transpositions. Additive rhythms transform a pattern of equal notes by adding a rhythmic unit that is one value shorter or longer than the established one. Measures 9-11 show the use of these three devices.



The coda represents a multitude of birds singing at the same time and is the most controlled section of the piece, because both pitch and rhythm are strictly determined through twelve-tone technique and rhythmic permutations. Messiaen's 12-tone row is <A, D, GO, $D^{\#}$, B^{b}, $G^{b,}$ E, C, D^{b}, B, F, G>, all in its original arrangement in the right hand of the piano, measures 91-93. This is called row P_9 because A is the 9th pitch in the standard system where C is pitch 0. The rows used in the coda are P_9, P_{10}, and P_{12}, and in measures 91-105 the rows appear in retrograde inversions.

Piano right-hand: P_9<A, D, $G^{\#}$, $D^{\#}$, B^{b}, G^{b}, E, C, D^{b}, B, F, G>

Piano left-hand: RI_2<E, $F^{\#}$, C, B^{b}, B, G, F, $C^{\#}$, $G^{\#}$, $D^{\#}$, A, D>



The material of the piano right and left hands is reversed between measures 106 and 120, creating an invertible counterpoint of pitches. The structural motive of ascending chromatic notes parallels the melodic motive. This row always produces unchanging tetrachords, such as the first four notes of P9, A, D, GO and N. These same notes are also the last four notes of this retrograde inversion. The other two tetrachords of the row also have the same characteristic. These first four notes of the original row are prominent in the flute solo, being used in the flute cadenza and throughout.

Messiaen uses four different rhythmic values to create rhythmic changes. Sixteenth, eighth, dotted-eighth, and quarter notes are combined and permutated 24 times.

Starting in measure 91 the rhythm alters in a series of values of increasing sixteenth-notes. If we call this series one, ordered 1 2 3 4, where 1 = 1 sixteenth, 2 = 2 sixteenths, etc., the second pattern or series two is ordered 1 2 4 3. Series three changes to values of 1 3 2 4, and the fourth pattern is 1 3 4 2.

The 24 patterns are played in the right and left hand of the piano. Starting with the first and thirteenth pattern played simultaneously, the piano then shifts to the second and fourteenth, followed by third and fifteenth, until all the 12 pairs are played. The completion of the rhythmic series coincides with the end of the twelve-tone series and it s retrograde inversion. When the invertible counterpoint occurs in measure 106, the rhythmic patterns are also inverted, starting with the 24^{th} and 12^{th} pattern, 23^{rd} and 11^{th}, and so forth.

After all the eight forms of the row are used and the 24 series of rhythms are permuted this section becomes a palindrome with itself. Through this technique Messiaen maintains organization of sound and rhythm in a section where order id not easily recognized. The flute in this section adds a unifying melodic ostinato with fragments of the row forms.

The tritone is a common element in the B sections, where it makes up the entire left-hand accompaniment during the canonic phrases. Melodically, it appears as a pair if tritones from A to E^{b} and D to $G^{\#}$ in the first cadenza and the first four notes of the row form. The piano's chromatic motive from the first measure here spans a tritone instead of a perfect fifth.

Le Merle Moir is an example of the creative use of birdsong and 12-tone row to compose a highly organized piece that sounds improvised. Messiaen said, "One can listen to nature in the most different ways," and an understanding of Messiaen's compositional technique will give performers and listeners an appreciation of the way nature and 12-tone rows are combined in this piece.