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**A MULTI-DIMENSIONAL ANALYSIS OF A MODERNIST WORK COMPOSED IN CAPTIVITY:  
OLIVIER MESSIAEN, "QUARTET FOR THE END OF TIME"**

**Esaret Altında Bestelenen Modernist Bir Eserin Çok Boyutlu Analizi:  
Olivier Messiaen, "Zamanın Sonu İçin Kuartet"**

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**ABSTRACT**

French composer Olivier Messiaen, a World War II medic, was imprisoned in Stalag VIII A camp by the Germans in 1940. Despite not actively participating in combat, a sympathetic German officer gave Messiaen materials to compose secretly. The resulting work, "Quatuor pour la fin du temps" (Quartet for the End of Time), features an unconventional quartet of piano, cello, violin, and clarinet due to the instruments available in the camp. The work's design incorporates musical and mystical qualities rooted in Messiaen's personal belief. The composition, with eight parts, symbolizes eternity, depicting the seven days of creation and the eighth day of rest from the Bible. Premiered in 1941, the article examines the non-musical motivations and composition techniques of the Quartet, exploring the influence of non-musical aspects on its musical elements. Analyses cover various technical aspects, including Indian rhythms/modes, Greek rhythms, medieval classical rhythmic principles, French organ music tradition, and synthetic modes/rhythms. The work is also examined in terms of Catholicism, ornithology, and synesthesia. The Introduction outlines Messiaen's life, the Quartet's compositional process, and the research's purpose and methods. Subsequent chapters analyze each movement, delving into the composer's techniques with prose analyses and musical examples from the score. The Conclusion synthesizes the findings and offers evaluations.

**Keywords:** Messiaen, Modernism, Ornithology, Synesthesia, Quartet.

**ÖZ**

Fransız besteci Olivier Messiaen, İkinci Dünya Savaşı'nda sıhhiyecisi olarak görev yapmış ve savaş esiri olarak Görlitz Stalag VIII A kampında hapsedilmiştir. Savaşa aktif şekilde katılmamasından dolayı bir Alman subayı ona sempati göstermiş ve bestecinin beste yapması için gizlice malzemeler sağlamıştır. "Quatuor pour la fin du temps" (Zamanın Sonu İçin Kuartet) bu zorlu ortamda bestelenmiştir. Eser, piyano, viyolonsel, keman ve klarnetten oluşan standart-dışı bir kuarteti içerir, bu da kamptaki mevcut enstrümanlardan ve yetenekli müzisyenlerden kaynaklanır. Yapısal tasarımı, Messiaen'in kişisel inançlarına dayanarak zamansızlık ve mistisizmi birleştirir. Eser, İncil'deki yedi yaratılış gününü ve Tanrı'nın dinlendiği sekizinci günü sembolize eder. Prömiyeri 15 Ocak 1941'de mahkûmlar ve gardiyanlardan oluşan bir kitle önünde gerçekleşmiştir. Bu makale, eserin müzik dışı motivasyonlarını ve besteleme tekniklerini inceleyerek, bu unsurların birbirleriyle olan etkileşimini anlamayı amaçlamaktadır. Analizler, Hint ritimleri/modları, Yunan ritimleri, Orta Çağ klasik ritmik ilkeleri, Fransız org müziği geleneği ve sentetik modlar/ritimleri içeren çeşitli teknik yönleri kapsamaktadır. Eser ayrıca Katoliklik, ornitoloji ve sinestezi açısından da incelenmektedir. İlk olarak, Messiaen'in hayatı ve Kuartet'in tarihçesi özetlenmektedir. Daha sonra, eserin her bir bölümü bestecinin teknik kullanımı açısından ayrıntılı bir şekilde ele alınmış, müzik pasajlarının analizi düz yazı ile açıklanmış ve ilgili notalarla örneklendirilmiştir. Sonuç bölümünde ise elde edilen bulgulardan çıkarılan sonuçlar sunulmuştur.

**Anahtar Kelimeler:** Messiaen, Modernizm, Ornitoloji, Sinestezi, Kuartet.

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**EXTENDED ABSTRACT**

French composer Olivier Messiaen is considered one of the most important classical music composers of the 20th century. Olivier Messiaen, a very devout Roman Catholic, reflected his feelings about his faith in his compositions. He entered the Paris Conservatory at the age of 11 and became a student of many famous composers such as Paul Dukas, Maurice Emmanuel, Charles-Marie Widor and Marcel Dupré. He was appointed as the organist of the la Sainte-Trinité Church in Paris in 1931 and continued this duty until his death. His work comes from the deep Catholic faith, medieval church songs, Hindu rhythms, and Ancient Greek music. This rich palette that Messiaen had as a composer made him one of the composers who had the most influence on contemporary music in the second half of the 20th century.

When World War II broke out in 1939, Messiaen left his wife Claire and their two-year-old son Pascal to join the French army as a medic. Arrested by the German army in May 1940, Messiaen was exiled to Stalag VIII A in Silesia, present-day Polish territory. Here, the difficulties he experienced due to hunger and cold and his hallucinations prompted the composer to write *Quatuor pour la fin du Temps* (Quartet for the End of Time) a few months before he was sent back to France in the spring of 1941. Because he did not actively fight in the war as a medic, a German officer sympathized with Messiaen, secretly delivering him paper, pencils, and erasers and even having a room in the rectory cleared for him to compose. *Quatuor pour la fin du temps* was composed in such an environment. The fact that the piece includes a non-standard instrumental combination consisting of piano, cello, violin, and clarinet as a quartet is a result of the existing instruments in the camp and the presence of competent musicians playing them. The structural design of the work includes both musical and mystical qualities on the axis of Messiaen's personal belief. The work, which consists of eight parts in total, symbolizes timelessness, that is, eternity, by depicting the seven days of creation and the eighth day when God rests, as represented in the Bible. The premiere of the work took place on January 15, 1941, in front of an audience of four thousand prisoners and guards.

When he returned to the Paris Conservatory after the war, he decided to share his passion for rhythm, modes, and birds. His book *Technique de mon langage musical* (Technique of my musical language), written in 1942, expresses his rhythmic, modal and ornithological research. The artist, who gained fame as a musician, rhythmist, ornithologist, teacher, and composer at the end of his forties, provided the education of well-known students such as Pierre Boulez, Karlheinz Stockhausen and Yannis Xenakis with his pedagogical identity.

Messiaen, whose place and importance in music history is indisputable as one of the composers who changed the evolution of modern music during the twentieth century, not only opened new windows in historical and geographical contexts but also added a different dimension to the notion of music in a new component in the centre of art, social and natural sciences. All subjects and elements, such as mathematics, physics, cosmology, acoustics, physiology, human, and animal (the zenith of ornithology), as well as poetry, philosophy, theories of motion and color, are included in this broad spectrum.

In this article, the non-musical motivations in the *Quartet* and the composition techniques utilized in the work will be examined with respect to each other. This work was chosen because it is an important example that combines many colors from the composer's wide palette. The main purpose of the research is to understand the determining effects of non-musical elements, which directly motivate the compositional process, on the musical elements of the work. In addition to technical elements such as Indian rhythms/Indian modes, Greek rhythms,

medieval classical rhythm principles, French organ music tradition, synthetic modes/synthetic rhythms, phenomena and concepts such as Catholicism, ornithology and synesthesia are among the topics explored in the context of *Quatuor pour la fin du temps*. Being one of the most important works of the 20th century, the *Quartet* exemplifies Messiaen's unique compositional techniques in the concept of time as a static element, as well as the unique development of unconventional harmony and rhythmic form. The unique use of rhythmic, harmonic and melodic structures in his music makes it impossible to analyze this piece with classical methods. Therefore, Messiaen's own analysis methods and his own terminology will be used to understand the depth of the composition. Despite being inspired by the Book of Revelation, Messiaen did not intend to describe the *Quartet* with direct reference to the biblical story of the Apocalypse or his own prison (Stalag VIII A). Rather, he thought it was an extension of the biblical narrative. The concept of the "end of time" represented by the angel in the Revelations chapter of the Bible, in its traditional sense, refers to the ending of both past and future time, but it also creates an opportunity to experience a timeless eternity. Messiaen tried to establish the same connection between the musical elements of the *Quartet*.

In the Introduction part of the article, Messiaen's life is summarized based on his personality as a composer, the compositional process of the *Quartet* is discussed in the historical framework, and the purpose of the research and the employed research methods are explained. In the following sections, all movements of the work were examined in detail. The techniques used in the work were analyzed through written out (text) analysis of the relevant passages by detailing them with footnotes at necessary points. Some of the musical examples were used to reflect the written-out analysis visually (notation) to which they were related, and some of them were used to further analyze the written-out theoretical information on the notational level. In the Conclusion part, there are inferences and evaluations made from the findings.

Olivier Messiaen is recognized as one of the 20th century's most important classical music composers. A devout Roman Catholic, he reflected his feelings about his faith in his compositions. The source of his works comes from his deep Catholic faith, medieval church songs, Hindu rhythms, and Ancient Greek music. *L'Ascension* (1933), *le Quatuor pour la fin du Temps* (1940), *les Vingtregards sur l'Enfant-Jésus* (1944), *la Turangalila-Symphonie* (1946-1948), *Saint François d'Assise* and *la Messe de la Pentecôte* are among his major works, making him one of the composers who most influenced contemporary music in the second half of the 20th century. At the age of 11, he entered the Paris Conservatoire, where he studied under many famous composers such as Paul Dukas, Maurice Emmanuel, Charles-Marie Widor and Marcel Dupré. In 1931, he was appointed organist of la Sainte-Trinité Church in Paris, a position he held until his death. He also worked as a harmony teacher after the end of the war in 1941, taught composition as a professor at the Paris Conservatoire in 1961 and retired in 1971. Among his well-known pupils were Quincy Jones, Pierre Boulez, Karlheinz Stockhausen and Yvonne Loriod, his second wife. He died on 27 April 1992 in Clichy. He left behind fifty works, deeply influenced several generations of students and music lovers, and took his place in music history as one of the composers who changed the evolution of modern music during the twentieth century. Messiaen was a composer whose universality was recognized by all his students. He not only opened new windows in historical and geographical contexts, but also gave a new dimension to the notion of music in a new 'quadrivium' component at the center of the arts, social and scientific sciences. Mathematics, physics, cosmology, acoustics, physiology, human and animal (the pinnacle of ornithology), as well as poetry, philosophy, theories of motion and color, all fall within this broad spectrum (Shenton, 2008: 42).

Messiaen joined the French army as a medic in the Second World War, and he was captured by the Germans in June 1940 as a prisoner of war in Stalag VIII A camp in Görlitz, Poland (<http://www.oliviermessiaen.org>). Unable to take food or clothing to the prison camp when captured, Messiaen somehow managed to take a bag containing Bach's *Brandenburg Concertos* and sheet music by Alban Berg, Beethoven, Ravel and Stravinsky (Linton, 1998: 13). Since he was a medic, a German officer sympathized with Messiaen because he was not actively fighting in the war, secretly provided him with paper, pencils and erasers, and even cleaned a room in the priest's block to give him a place to compose. *Quatuor pour la fin du temps* (Quartet for the End of Time) was composed in such an environment. Messiaen composed almost the entire work with the inspiration and mood provided by the very restricted conditions, including the gloomy looks reflected on the faces of the prisoners in the camp as they were in various stages of hunger and cold, and the extreme physical and psychological difficulties that affected even their dreams. He thought that the northern lights he witnessed in the camp was a sign from God to complete his work. The fact that the work is a quartet with a non-standard instrumental combination of piano, cello, violin and clarinet is a result of the available instruments in the camp and the competent musicians who performed them. The structural design of the work contains both musical and mystical qualities based on Messiaen's personal beliefs. The work, which consists of eight movements in total, symbolizes timelessness, that is, eternity, by depicting the seven days of creation represented in the Bible and the eighth day on which God rested. The work was premiered on 15 January 1941 in front of an audience of four thousand prisoners and guards (<http://www.oliviermessiaen.org>).

The title of the composition is taken from the Biblical text of Revelation 10:6, which has a double connotation for Messiaen: "the end of time" in this case not only refers to the Christian myth of the Apocalypse, but also represents a type of composition that separates the rhythm from the standard classical meter systems, thus

"enabling" the end of time in real time. The fact that the process-related reflections of the of the *Quartet's* creation are embodied in the work, helped Messiaen to establish a strong connection between musical and theological elements of faith. This was an optimistic approach, given the novelty of the work as well as the grim environment in which it was written (Linton, 1998: 13).

Messiaen explains his inspiration from these Revelations in his own words in the Preface to the Quartet:

The Preface is directly inspired by the Testimony of St John. Its spiritual language is essentially transcendental, spiritual, and catholic. Certain modes, which melodically and harmonically reveal a kind of tonality, draw the listener into a sense of the eternity of space or time... certain rhythms contribute significantly to the prohibition of temporalities (Messiaen, 1940: 1).

Considered one of the 20th century's most important works, the *Quartet* exemplifies Messiaen's unique development of non-traditional harmonic and rhythmic practices as well as his original compositional techniques in the concept of time as a static element. The main purpose of this research is to explore and understand the determining effects of the non-musical elements -that motivated the compositional process of the *Quartet*- on the musical elements of the work and to analyze this interaction through the relevant musical passages. Along with technical elements such as Indian rhythms/Indian modes, Greek rhythms, medieval classical rhythmic principles, French organ music tradition, synthetic modes/synthetic rhythms, some concepts such as Catholicism, ornithology and synesthesia are among the subjects analyzed in the context of *Quatuor pour la fin du temps*. The analysis is multidimensional as it contains many elements at the same time. The unique use of rhythmic, harmonic and melodic structures in Messiaen's music makes it impossible to analyze this work with classical methods. Therefore, in order to understand the depth of this unique composition, Messiaen's own methods of analysis and his own analytical terminology will be taken as a basis. Literature review and music analysis are employed as the primary methods of the research. Associated books, essays, articles, theses, dissertations, CD/DVD recordings and the *Quartet's* score are among the resources utilized extensively.

### **Liturgie de Cristal**

The first movement of the *Quartet* contains examples of many of the melodic, harmonic and rhythmic structures used throughout the work. Each movement will be described in detail, together with the qualities that create the focus of "timelessness". The contents of the movements are represented by the composer's own interpretations in Messiaen's Preface to each movement (Messiaen, 1940).

In the first movement, each instrument in the quartet participates in the musical movement with their individual roles. While the main rhythmic structure is provided by rhythmic pedals on the piano and cello, the clarinet and violin play melodic ornaments representing blackbird and nightingale calls respectively; these bird songs are heard on each instrument and create a rhythmically irregular improvisational environment. The *Quartet* is the very first piece in Messiaen's oeuvre in which he uses bird songs and was probably inspired by his imagination of joining the birds flying outside while he was stuck behind the walls of the imprisonment camp. Messiaen was an

ornithologist<sup>1</sup> and devoted a significant part of his life to the study of bird songs. He later described birds as "little prophets of spiritual happiness" (Linton, 1998: 14).



**Example 1:** The Use of Violin and Clarinet for Bird Songs in *Liturgie de Cristal*

The rhythmic pulse created in the ostinato on the piano, as well as a rhythmic series of seventeen values superimposed on a pattern of twenty-nine chords that repeat in a continuous cycle, maintain their progression independently of each other. Thus, a framework based on the prime numbers 17 and 29 was created. Due to the use of prime numbers, different variations of the overlapping of musical elements in the isorhythmic<sup>2</sup> order are obtained.

Messiaen described the rhythmic pedal as a pattern that repeats an ostinato pattern independently of the other rhythms surrounding it. The rhythmic pedal can overlap with other rhythmic pedals on different instruments in a completely unique system. As of the beginning of the Quartet, the rhythmic pedal used in the piano is applied as shown below (see Example 2) (Messiaen, 1942: 26). The letters A, B, C and D in the piano part indicate the repetitively used rhythmic pedal. Consisting of 17 values, this rhythmic pedal repeats exactly nine times throughout the movement.

<sup>1</sup> bird-scientist / bird-researcher

<sup>2</sup> Literally "same rhythm" in Greek. 'Isorhythm' is the practice of structuring a piece of music on a repeating rhythmic pattern/model.

60 *Liturgie de cristal* (comme un oiseau)

**Bien modéré, en poudroiement harmonieux**

Violon

Clarinettes en Sib

Violoncelle

Piano

*ppp* (son flûté)

*p* *expressif*

*ppp* (vibrato)

*pp* legato (très enveloppé de pédale)

vers la pointe)

*glissando*

*gliss.*

A

X

H

N

O

B

Q

R

C

Example 2: *Liturgie de Cristal*

The clarinet delivers a main melody that sometimes travels in the range of the piano and cello. Bright bird-call motifs in the violin's high register create a secondary counterpoint. The structure that covers the hazy and loose sonority of the artificial harmonics in the cello and integrates all its mysteriousness is again expressed as a rhythmic pedal. This structure on the cello is divided into two non-retrogradable rhythms (indicated with the letters A and B in Example 3). In Example 3, the mirror point of the cello's non-retrogradable<sup>3</sup> rhythmic structure is indicated with + symbol below the staff. This structure repeats until the end of the section. The entire rhythmic pattern is indicated in the cello and piano parts by the symbols  $\square$  and  $\square$ , and the letters X, Y and Z written next to them (Example 2). X and Y contain the whole rhythmic pedal, and Z contains half of it. This rhythmic pedal, consisting of fifteen values, also contains three different melodic pedal patterns of five notes each. This design, which continues in the cello part throughout the entire movement, includes a fifteen-unit rhythmic pedal that repeats seven times and a melodic pedal consisting of the sounds [Do, Mi Re, Fa# and Sib]<sup>4</sup> that repeats three times within each of these rhythmic pedals and the same melodic pedal is repeated a total of twenty-one times

<sup>3</sup> Non-retrogradable rhythm: a rhythmic structure whose forward reading produces exactly the same result as its backward reading. Such structures are also referred to as 'musical palindromes'.

<sup>4</sup> [C, E, D, F sharp and B flat]

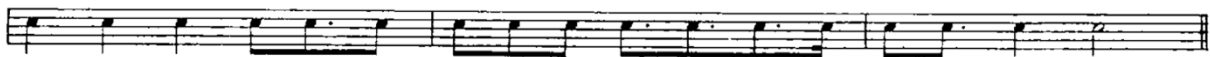


throughout the movement. Since the rhythmic pedal repeats its own pattern, likewise, the melodic and harmonic pedals follow their own melody and chord sequence patterns.



Example 3: Use of Non-Retrogradable Rhythms

In the same movement, a similar type of automatism<sup>5</sup> occurs on the piano. The piano repeats the chords forming the rhythmic and harmonic pedals successively. Here again, the number of chords forming the harmonic pedal is 29, and the number of values forming the rhythmic pedal is 17. The fact that these two prime values move together causes the chords to undergo some unexpected rhythmic variations. The rhythmic pedal on the piano is as follows.



Example 4: The 17-Note Rhythmic Pedal Pattern of the Piano in the *Liturgie de Cristal*

The vertical overlap of the rhythmic and melodic/harmonic pedals discussed above is explained in detail in Example 5 below:<sup>6</sup>

**Rhythmic Pedal (talea) of 17 values:**  
 \* (deçi-tâlas from Sangitaratnakara)  
 \* Occurs nearly 10 times throughout the movement.

First 6 values -- retrograde of râgavardhana      Next 7 values -- candrakalâ      Final four values -- laksmiça

**Melodic/Harmonic pedal (color) of 29 harmonies**  
 \* Occurs nearly 6 times throughout the movement.

non-modal. The 2nd chord is a chord on the dominant that uses all of the pitches of the Bb major scale.  
 Messiaen retains an F (the dominant) in the bass as a pedal tone, coloring the chord with different harmonies to create what he called a "stained glass window" effect.

\*\*\* notes are natural unless preceded by a sharp or flat

\*\*\*\* Note the use of prime numbers in the construction of the rhythmic pedals (talea) and the melodic/harmonic pedals (color) -- 17, 29, 5...

It would take over 230 minutes for these to sync up again once initiated.

Example 5: 29-Unit Harmonic Pedal on the Piano in the *Liturgie de Cristal*

The chords that form the pedals are the dominant chords with appoggiatura(s) Messiaen used to depict colored stained-glass windows. These chords, which will be discussed in more detail later, are formed from the pitches of

<sup>5</sup> Formation with a systemic pattern.

<sup>6</sup> Messiaen expressed rhythmic patterns and pedals as a concept with the words 'talea' or 'tala'. In addition to this, he occasionally included 'tala', rhythmic patterns used in the traditional Indian musical system. Example 5 shows some of these talas.

Mode 2 and Mode 3<sup>7</sup>. In addition, the cello's repetition of a melody in Mode 1 (whole-tone scale) prevents monotony in these harmonic combinations. Finally, the motifs in the violin part, divided by rests, are written in bird-song style, like the clarinet's song phrases; see Example 2 (Messiaen, 1942: 26).

The first movement of the *Quartet* is written in 3/4 time, but Messiaen has eliminated the standard rhythmic structure within the isorhythmic beat pattern. The chords are highly dissonant and the rhythmic pattern is constructed utilizing the *Sharngadeva* rhythms of *ragavardhana*, *candrakala* and *laksmiça*, as shown in Example 6. Thus, the composer was able to break the effect of metrical and regular time, avoiding a perceptible sense of edged/pointy rhythmic patterns throughout the work.



Example 6: Non-Standard Rhythm Pattern

The chord sequences, as mentioned above, feature a combination of modes of limited transposition. Surrounding the piano part, the cello continuously repeats a melodic pedal consisting of the same five notes. These sounds, played as harmonics, are the notes [Do, Mi, Re, Fa# and Sib] only and respectively (Mode 1 - Whole Tone Scale). This pattern forms a larger rhythmic pedal of fifteen values in which the group of five pitches is repeated three times (Example 7).

Example 7: Melodic and Rhythmic Pedal

Messiaen explained the palindrome structure in the cello part, which is another frequently used rhythmic technique, as Pattern A and Pattern B, and indicated the center point of this pattern with the sign (\*) (Messiaen, 1942: 17).

Example 8: Palindrome Structure

Therefore, it can be said that the rhythmic progress serves as "coloring" for the section, rather than determining the overall structure (Johnson, 1975: 63). All these rhythmic techniques, which provide the background for the calm passages of the bird songs, combine to create an environment that is not in the standard metrical order. As all the instruments play at the same time, they create their own unique melodic lines without much interaction with

<sup>7</sup> Messiaen categorised seven synthetic modes, which he called "modes of limited transposition" because only a limited number of true transpositions are possible since after a certain number of transpositions these modes will repeat themselves pitch by pitch.

each other. By using all these techniques, Messiaen has tried to create the feeling that the movement is part of a much larger musical structure that goes on forever.

Towards the end of the movement, the whole sequence of rhythmic patterns that make up the piano's isorhythmic cycle comes to an end, as the prevalent melodic motifs of bird songs in the clarinet and violin parts mark the moment when the movement ends. *Liturgie de Cristal* gives the listener a glimpse into the reality of Jerusalem in heaven, a place beyond time" (Linton, 1998: 14). According to Summa-Chadwick (2008), Messiaen aimed to create a glimpse of "timelessness" (that is, eternity) for his audience by interrupting the isorhythmic cycle (Summa-Chadwick, 2008: 9-10).

### Vocalise pour l'Ange qui annonce la fin du Temps

This movement is written in extended A-B-A form, with a mystical middle section (section B) preceded and followed by a very strong rhythmic passage. The piano continues the rhythmic development of the A section, while the heavy character and eccentric chords descend almost to the lowest register of the instrument. The motive in question (Example 9), representing the Angel announcing the End of Time, is later repeated in the seventh movement of the *Quartet*:

Example 9: 'Angel Motive' Announcing the End of Time

An important application found in Messiaen's music in the context of harmonic formulas is the intensive use of different colored chords that contain every note of a major scale in the chord structure but are arranged on the dominant tone. Messiaen tried to create the effect of 'patterned color windows'<sup>8</sup> by regularly using this chord structure, which he called the 'dominant chord', together with appoggiaturas. This title refers to the colorful and patterned stained-glass windows that could be found in churches and cathedrals. Different vertical structures of this kind are mixed with the intervals of perfect fourths and augmented fourths and varied with other chordal combinations, again based on the dominant (V) degree. Another chord frequently used by Messiaen is the 'resonance chord'. In this type of chord structure, every single pitch of the Mode 3 is used. The composer organized the vertical arrangement of these pitches and reversed the "root" chord (Summa-Chadwick, 2008: 5). In addition, Messiaen uses, by his definition, the 'cluster chord', which will be explained below.

Section A, the first part of the second movement of the *Quartet*, ends with descending cluster chords in the piano part, while a final bird call is heard in the clarinet. The following example is drawn from this section

<sup>8</sup> stained-glass windows

(Example 10), the use of quartal chords<sup>9</sup> is indicated by the letter A, while the use of resonance chords is indicated by the letter B:

**Presque lent, impalpable, lointain**

**Example 10:** Quartal Chords and Resonance Chords in *Vocalise pour l'Ange qui annonce la fin du Temps*

The way that the lower resonance (sub-resonance) chords are used in Section A is presented in Example 11:

**Robuste, modéré**

**Example 11 :** Sub-Resonance Chords from *Vocalise pour l'Ange qui annonce la fin du Temps*'

Example 12 shows the dominant chords (letter A) and sub-resonance chords (letter B), including the arpeggio gesture on the clarinet.

*Vocalise, pour l'Ange qui annonce la fin du Temps*  
Violon

**Modéré**

<sup>9</sup> chords based on the interval of fourths.

von  
Clar. Sib  
vllc  
pno

Modéré

fff A B 8<sup>a</sup> bassa

Example 12: Sub-Resonance Chords from *Vocalise pour l'Ange qui annonce la fin du Temps*'

Another example of chord forms is cluster chords. The use of cluster chords in the *Quartet*, which Messiaen describes as "blue-orange chords played one after the other in a way similar to the timbre of a church bell heard from afar", is given in Example 13:

i  
vllc  
pno

Presque lent, impalpable, lointain

pp sourdine  
ppp  
Red A Red B  
C Red B C Red A Red

Example 13: Cluster Chords from *Vocalise pour l'Ange qui annonce la fin du Temps*

In this example (Example 13), the letter A indicates overlapping quartal chords, B indicates resonance chords, and C indicates chords formed with the pitches of Mode 2.

In Section B, which Messiaen described as the rainbow section, he spoke of 'cascading chords' dominated by a steel grey color similar to flowing water droplets (Halbreich, 1980: 313). Therefore, all the piano chords in Example 13 form cascading chords as they take place in a descending pattern.

'Litanic harmony', one of the techniques used by the composer, is defined as the effect achieved by the addition of two or more pitches repeated in various vertical combinations. Messiaen used this harmonic form quite frequently in the work (see Example 14 and Example 15).



**Example 14.** Use of 'Litanic Harmony' in *Vocalise pour l'Ange qui annonce la fin du Temps*

Chords formed by combinations of fourths and fifths are shown in Example 15. The chord indicated with a plus (+) sign is a superposition chord formed by a perfect fourth, an augmented fourth and another perfect fourth arranged from bottom to top. The other examples contain similar structures based on quartal and quintal<sup>10</sup> intervals:



**Example 15:** Examples of Harmonic Combinations in *Vocalise pour l'Ange qui annonce la fin du Temps*

In the middle and longer B section of the movement, the piano initially moves with 'resonance chords' while the violin and cello move in unison two octaves apart:

<sup>10</sup> based on fifths



Example 16: Resonance Chords

The sets containing the ‘resonance chords’ in measure 11 of part B are constructed as follows. The repetition patterns of these sets are indicated by the letter A and smaller sub-sets within the Set A are indicated with shorter lines in Example 17.

Example 17: Vocalise pour l'Ange qui annonce la fin du Temps (Part B, mesures 11-16)

At the very beginning of section B<sup>11</sup>, the violin and cello move in unison two octaves apart. This is Messiaen's analogy to the plainchant, but it also creates a sense of ametric<sup>12</sup> rhythm. Messiaen achieves these structures, which sound as if they are not in a rhythmic pattern, using additive values and the augmentation of rhythms on repeated notes. In Example 18, B is an example of the rhythmic augmentation of A, and D is an example of the rhythmic augmentation of C:

**Example 18:** Ametric Structure with Rhythmic Augmentation

The return of Section A in m. 49 (to be referred as A') is considerably shorter than the first Section A in the beginning of the movement (m. 1). The ascending passage in the violin and cello parts in the first A is resolved descending with a reverse movement in m. 49 (A'). Likewise, the piano's arpeggiated chordal passages also move descending and then continue ascending with cluster chords. To summarize, all the horizontal movements in Section A' are formed as the reverse of the horizontal movements in Section A.

### **Abîme des oiseaux**

The third movement of the *Quartet* is a striking example of Messiaen's treatment of bird songs in his compositions. Messiaen was fascinated by bird songs. On the other hand, he realized that due to the limitations of the existing harmony system and musical instruments it was not possible to create an exact replica of the bird sounds he heard in nature.

- A. Lent (eighth note = 44): 13 bars up to 'sans presser'
- B. Presque vif (sixteenth note = 126): 6 measures
- C. Lent: 1 measure, sans presser
- D. Presque vif : 4 measures
- E. Modéré (eighth note = c. 92): 5 measures
- F. Lent: 12 measures
- G. Modéré: 2 measures
- H. Presque vif: 1 measure to the last four notes 'Lent (sixteenth note = 100)'

In this movement, written entirely for solo clarinet, the contrast between the extremely slow movements (Lent, octave = 44) and the extremely fast movements (Presque vif, = 26) is quite high. The feeling of musical contrast

<sup>11</sup> m. 19

<sup>12</sup> Lacking a stable meter, usually because of elaborate cross-rhythms or an absence of pulsation (Griffiths, 1996: 17).

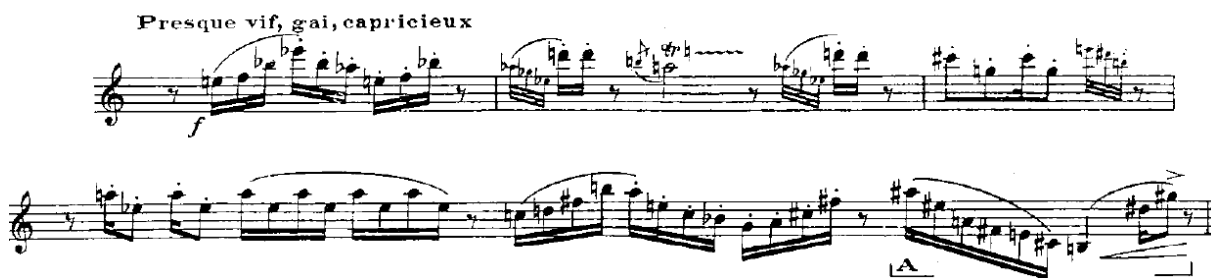


between the optimistic character of the bird song and the emptiness of the "sad and tired time" is clearly expressed at the beginning of the movement. This movement has no metric structure, so that the clarinet, which could act "timelessly", is nevertheless heard rhythmically. In the fast sections, Messiaen uses imitations of blackbird and nightingale calls. He then adds a descending arpeggio travelling over the dominant chord (denoted by the asterisk [\*] symbol in Example 19 and by the letter A in Example 20). Messiaen thinks of the nightingale's song as 'a subset of a group of birds singing exuberantly in a subset of motivic variations with various patterns'. In addition to the nightingale, another bird species discussed in the chapter is the blackbird. The blackbird belongs to a different bird species in terms of its melodic style and the "tonal" effects it produces, usually at slow tempos (Johnson, 1975: 134).



Example 19: Bird Song

Messiaen uses the dominant chord in both descending and ascending passages in the fast portions of the movement. Frequently placed breathing marks are used to indicate the beginning and end of certain bird motives and to compress the time between calls, notably those of the blackbirds.



Example 20: The Use of the Clarinet for Bird Songs in *Abime des oiseaux*

In contrast, the slow notes of the "sad and weary time" sections within the work (Lent, eighth note = 44) are prolonged and dragged out to represent the melancholy and sterility of earthly existence.

It is possible to hypothesize that Messiaen deliberately used numerals (prime numbers) that are said to have "divine" properties in this part of the work. The five notes from F# (letter A) to F# (letter B) in Example 21 fall into this category. In the second phrase (letter B), there are two repetitions, each with three notes. This three-note motive, which begins with F# and repeats twice, is heard a total of three (3) times by the time it reaches the final two-note F#.



Example 21: Prime Numbers

Messiaen's use of bird songs in this work hints that he would devote most of his later works to bird songs and that he would compose compositions that would include the sounds of over a hundred different bird species. The

nightingale and the blackbird, whose voices he used in this work, became the two bird species he would use most extensively in his bird-song compositions in the following years (Johnson, 1975: 131).

### Intermède

This movement is the only one written metrically in 2/4 time, with motives consisting of variations of eighth and sixteenth notes. This movement sounds more worldly comparing to other movements' otherworldly spiritual character. It was originally written as a short trio to be performed by other prisoners who played clarinet, violin and cello, and the piano was included later. It is also the only movement with "playful" dialogues between the instruments and the only one with no references to religious elements.

Most passages move in unison and/or at certain intervals parallel to the melody. However, there are occasional deviations in which dialogues between the instruments are also included (see Example 22).

The image displays a musical score for three instruments: Violin (V on), Clarinet (Cl.), and Violoncello (V elle). The score is arranged in two systems. The first system shows the three instruments playing in parallel motion, with dynamic markings of *ff* (fortissimo) for each. A box labeled 'B' is placed above the violin staff in the first system. The second system shows the instruments playing in parallel motion with dynamic markings of *f* (forte) for violin and cello, and *pp* (pianissimo) for clarinet. The violin part ends with a *mf* (mezzo-forte) marking. The clarinet part ends with a *f* marking. The cello part ends with a *mf* marking.

Example 22: Unison-Parallel Movements and Dialogues

In the fourth movement, characterized by an optimistic atmosphere, material from the other movements is incorporated without compromising this character, thus ensuring a structural unity throughout the *Quartet* by means of thematic references between movements. Example 23 shows the use of the opening theme derived from the sixth movement of the *Quartet* (marked with F in the score). This theme, written without a meter in the sixth movement, is now notated in 2/4 time in the fourth movement. As a result, the rhythmic structure of the theme sounds the same in both movements.

Example 23: Use of the Opening Theme of Movement Six in Movement Four

### Louange à l'Éternité de Jésus

At the first appearance of the theme on the cello and during the development of this theme, the piano part portrays a static character with fixed sixteenth-note chords surrounded by rests. Although the chords in the piano part do not fully comply with the principles of functional-harmony, they somehow suggest tonal colors and effects creating a harmonic aura reminiscent of the Late-Romantic period, whose functionality is concealed by means of non-chord tones such as appoggiaturas, anticipations, suspensions and so forth (Example 24).

Example 24: Louange à l'Éternité de Jésus - Piano Part, mm 1 - 8

Messiaen utilized a method called "song phrase" for the cello line. This is a theme with both antecedent and consequent phrases. (Messiaen, 1942: 44). This section does not employ a specific unit of meter, so the cello

proceeds on the continuous movement of piano's sixteenth note pattern. For the antecedent phrase of the theme, see Example 25:



Example 25: Antecedent Phrase of the Cello Theme

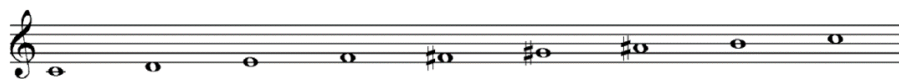
In the last bars, while the piano part continues with the accompaniment of sixteenth notes, Messiaen breaks this sense of continuity to a certain extent by increasing the use of rests below the last long note held in the cello part. (Example 26).

Example 26: *Louange à l'Éternité de Jésus* – Closing Three Measures

### Danse de la fureur, pour les sept trompettes

This section refers to the seventh angel, who reveals the mystery of God by playing the first six trumpets of the Apocalypse and the various catastrophes that follow. The use of irregular pulse in *forte* dynamic creates a breath-taking and climactic atmosphere in which the four instruments harmonize in octave-unison. This depicts the horrible and chaotic aspect of the end of the world. For the composer, this movement is mostly "a study in rhythm". The theme is rhythmically manipulated through Messiaen's use of added values, usually short values, through a tie or a dot (Faller, 2003: 16).

*Danse de la fureur, pour les sept trompettes* is the most rhythmically energetic movement of the *Quartet*. It has a unison structure, with all instruments playing the same phrases in close octaves in a consistent manner throughout. The entire movement is written in Mode 6, one of the 'modes of limited transposition', consisting of two tetrachords juxtaposed with a half-step interval instead of a whole-step interval.



Example 27: Mode 6

The first 27 bars of the movement are developed with a structure of a new rhythmic phrase of two measures in length. Every second measure (e.g., measures 2, 4, 6), a climax is reached on the longest note of the phrase. In terms of its content, this structure is an illuminating example of Messiaen's use of rhythmic addition in combination with prime number groups of 5, 7, 11 and 13. The process that rhythmic groups are formed by means of additive values around eighth notes to reach prime numbers is indicated by the symbol (\*) within a square bracket in Example 28a:



Example 28a: 5-Unit Rhythmic Group<sup>13</sup>

Then, a group of seven units was created with an added sixteenth value. This is also indicated by an asterisk (\*) in Example 28b.



Example 28b: 7-Unit Rhythmic Group

The inserted value (sixteenth note) forms a group of eleven units (see Example 28c):



Example 28c: 11-Unit Rhythmic Group

The inserted value (again, sixteenth note) forms a group of thirteen units (Example 28d):



Example 28d: 13-Unit Rhythmic Group

In the following example (Example 29), the added rhythmic values -denoted by letters- are used to round up the sum of the number of sixteenth note values to prime numbers. Letter A indicates groups of 3, B:5, C:7, D:11 and E:13 units.



<sup>13</sup> 1-unit equals a sixteenth note

Example 29: The Use of Added Values, in *Danse de la fureur, pour les sept trumpets*

Messiaen used non-retrogradable rhythms in each of the first 14 bars of the second section of the movement marked "Au mouvt". The composer explained how this rhythmic technique is particularly useful for modes of limited transposition in his book *The Technique of My Musical Language*. His hypothesis for this theory is based on the principle that modes of limited transposition are unreadable from top to bottom in the vertical direction, while rhythms are non-retrogradable in the horizontal direction. The notion of 'non-retrogradable' stems from the fact that reading the original rhythmic pattern from beginning to end would give exactly the same result as reading it from end to beginning. Therefore, there is no point in reading the original rhythmic pattern from end to beginning, and the relevant pattern becomes non-retrogradable. "The last note of each group of these modes is always in common with the first note of the next group, and the groups of these rhythms frame a central value common to each group. The explanation is now complete" (Messiaen, 1942: 18).

Each measure in Example 30 contains a rhythmic pattern that cannot be read from end to end. The common value (center point or center note) of each phrase is indicated by the asterisk symbol. On both sides (right and left) of the center notes marked with (\*), there is a mirror image of the rhythmic pattern:

Example 30: Two Separate Non-Retrogradable Rhythmic Structure



In the *presque lent, terrible et puissant* section, all instruments move together. This section, which exceeds the range of one octave and then reaches many octave divisions, is also rhythmically challenging for the players. Messiaen used such a feature to "give this theme an overwhelming force" (Messiaen 1942: 43).

All the bars in Example 31 contain non-retrogradable rhythmic patterns.



**Example 31:** From *Danse de la fureur, pour les sept trumpets*, Use of Non-Retrogradable Rhythms

In the eight-measure-long segment analyzed in Example 31, the following sequence of sixteen notes (see Example 32) is repeated four times, and in the fourth repetition, the last two notes of the sequence are omitted. This method not only emphasizes a single scale, but also allows rhythmic variations to be created while repeating the pitches of the scale.



**Example 32:** *Danse de la fureur, in pour les sept trumpets*, Repetitive Sequence of Rhythmic Variations

### Fouillis d'arcs-en-ciel, pour l'Ange qui annonce la fin du Temps

The *Quartet* has the strongest connection with the harsh conditions in the prison camp. Messiaen tried to describe the vivid hallucinations caused by hunger and the icy cold of Silesia<sup>14</sup> (Faller, 2003: 18). In Messiaen's own explanation of the colors that created this movement, he stated that it has the most variety of musical elements in the whole *Quartet*. At first, the movement alternates between two calm and peaceful themes, followed by a powerful theme representing the angel, originally announced in the second movement of the work. Messiaen describes such forms as "the alternation of the First Theme separated by the development of the Second Theme" (Messiaen, 1942: 54). This movement is dedicated to the Angel, especially the rainbow, a symbol of peace, wisdom and "all vibrations of light and sound" (Preface to the movement from the *Quartet's* score).

The cascading chords of the second movement are revisited here in the seventh movement (Example 33).

<sup>14</sup> The name of the prison camp

Example 33: Cascades of Chords (seventh movement)

The rainbow figure is represented by arpeggios and arpeggio-like melodic gestures on the piano, and these gestures diversify and appear in different forms within the movement (Example 34).

Example 34: Variation of Rainbow Figures, Arpeggios, and Arpeggio-Like Gestures

This movement consists of a harmonic structure in which the Mode 6, one of the 'modes of limited transposition', and the Mode 5 overlap. The Mode 6 was also used in the previous movement of the *Quartet* (sixth movement). The structure of the Mode 5 is as follows (Example 35):

Example 35: Mode 5



In this section, the cello and piano begin with a dialogue similar to the one at the beginning of the fifth movement; the cello line, which contains rhythmically added values, moves in a lyrical structure over the piano's undulating sixteenth-note chords depicting a rainbow.

Beginning in measure 13, the new section introduces the 'Angel Theme'<sup>15</sup> in the piano part. This time, a pattern of sixteenth notes based on the interval of minor seventh is added in the left hand (Example 36).

The image shows a musical score for piano and cello. The piano part is in the upper staves, and the cello part is in the lower staff. The piano part features a 'minor 7th and Dissonance Chord Extensions' pattern in the left hand, marked with *sf* and *p*. The cello part is marked with *sf* and *p*. The score includes dynamic markings like *sf*, *p*, and *sf*, and a tempo marking of *8vb*.

Example 36: Minor 7th and Dissonance Chord Extensions

The violin and clarinet join the music in the new section with the 'Angel Theme' (measure 13), see Example 37:

The image shows a musical score for violin, clarinet, cello, and piano. The violin and clarinet parts are in the upper staves, and the cello and piano parts are in the lower staves. The score includes dynamic markings like *ff* and *p*, and a tempo marking of *Robuste, modéré, un peu vif (♩=66 env.)*. The piano part features a 'minor 7th and Dissonance Chord Extensions' pattern in the left hand, marked with *sf* and *p*. The score includes dynamic markings like *ff*, *p*, and *sf*, and a tempo marking of *8vb*.

Example 37: Participation of All Instruments

In the *Extatique* section of *Fouillis d'arcs-en-ciel, pour l'Ange qui annonce la fin du Temps*, while the clarinet, violin and cello proceed with an octave-unison melody with all notes decorated with trills, the descending and ascending arpeggios fluctuating in the piano part provide this section with a very colorful harmonic/textural color

<sup>15</sup> The 'Angel Theme' was previously announced in the second movement of the *Quartet*.

(Example 38). The piano's accompanying arpeggios and the trill-ornamented melody in the other three instruments are written using the modes of limited transposition.

Example 38: Trill-Ornamented Passage Proceeding over the Fluctuating Chords of the Piano

One of the most striking instrumental effects of this movement of the quartet is the sharp cello glissando heard between mm. 23-25, covering a registry of almost three octaves (see Example 39). This glissando, timbrally surrounded by trill-ornamented long notes of the other instruments in *fff* dynamic, effectively depicts the spiral interlocking of colors and sounds.

Example 39: Cello Glissando (mm. 23 - 25)

Following the first glissando in the cello, similar cello glissandi are heard twice more in succession. However, this time the glissandi last longer (for four bars), both ascending and descending, and the piano delivers the octatonic chords (also in *fff*) this time in tremolo fashion, thus creating a much more intense atmosphere (Example 40).

The image shows a musical score for a quartet. It consists of four staves: Violin (V on), Clarinet (Cl.), Cello (Celle), and Piano. The Violin and Clarinet parts feature tremolos, indicated by 'fff trille'. The Cello part features glissandi, indicated by 'gliss.'. The Piano part features a complex texture with tremolos and glissandi, indicated by 'fff' and 'gliss.'. The score is written in a key signature of two sharps (F# and C#) and a time signature of 4/4. The music is highly complex and expressive, with many dynamic markings and articulations.

**Example 40:** Other Cello Glissandi Accompanied by Tremolo Gestures

All the material derived from other movements are combined horizontally and vertically in different arrangements. Therefore, the seventh movement summarizes all the previous movements of the work and has a densely woven thematic structure. As mentioned above, with such a method Messiaen chose to musically reflect the spiral interlocking of the color (and sound) spectrums that make up the rainbow. In short, the seventh movement is the most intense and the most difficult to assimilate both musically and expressively. The thematic and formal structure confirms this intensity and complexity. As a result, these are the factors that make the movement extremely powerful in terms of its unique expressiveness.

Example 41 confirms this situation exactly: the ‘Angel Theme’ in the piano part, which was previously analyzed in Example 37 (13th measure of the movement), reappears one more time but this time the violin, clarinet and cello are in successive sixteenth notes, projecting the pitches of the ‘modes of limited transposition’. Messiaen puts together fixed musical ideas at his disposal in different combinations, resulting in quite different and varied formal/textural structures.

The image shows a musical score for Example 41, featuring four staves: Violin (V. on), Clarinet (Cl.), Violoncello (V. elle), and Piano. The score is in 4/4 time and consists of 12 measures. The Violin, Clarinet, and Violoncello parts are marked with dynamics *ff*, *p*, and *cresc.* The Piano part is marked with *ff* and includes a section with a dashed box containing the notes  $8^a b p$ .

Example 41: Different Combinations of Various Musical Ideas

### Louange à l'Immortalité de Jésus

This is an additional movement written by Messiaen long before he wrote the *Quartet*. It originally belongs to an organ piece entitled *Dyptique*, written in 1930, and was later rewritten by the composer for violin and piano. Messiaen chose to deal exclusively with the glorious aspect of Christ, rather than the passion and suffering that are cultural elements of Christianity. Messiaen felt himself more capable of emphasizing joy rather than pain, and his music is uplifting and comforting, like God's love, mercy and forgiveness. He was happy to refer to these subjects in his works (Faller, 2003: 9). In line with Faller's observation, instead of referring to the crucifixion and suffering of Jesus, Messiaen referred to the idea of Jesus' immortality in the movement. The serene and otherworldly character of the music is a reflection of an inner meditation on the immortality of Christ.

The composer described the movement *Louange à l'Immortalité de Jésus* with the words, "The final duet for violin and piano, extremely slow and delicate, ecstatic." These words are followed by the following description, also from the composer's pen:

"A long violin solo follows as an addition to the cello solo in the fifth movement. So why the same praise a second time? More specifically, it points to the human side of Jesus; the Word made flesh and bone - resurrected immortal to give us life. It is all about love. The musical ascent into an extremely high register is the ascent of 'man' towards God, of the Child of God towards his Father, of the Divine Presence towards Heaven." (Messiaen, *Louange à l'Immortalité de Jésus*: Preface)

Texturally very similar to the 5th movement of the *Quartet* for cello and piano, this final movement utilises violin and piano to create an extraordinarily calm and ethereal structure. *Louange à l'Eternité de Jésus* utilises the song-phrase structure. This movement makes use of a double phrase structure, similar to Messiaen's song phrase, but with the addition of an extra element. Messiaen explained the binary sentence structure as an exposition of a theme phrase followed by an introductory phrase that tends to move towards the dominant of the original tone. The theme is recapitulated, and then a second phrase appears, ending in the tonic of the original tonality (Messiaen 1942: 45).

Messiaen's double phrases consist of a repetition of an existing theme with a modulated version or one that travels in the pitches of the dominant chord. After the three-measure-long theme is announced, in the repetition section, a phrase similar to the theme begins, this time on a different pitch (Example 42). Both phrases are rhythmically the same and very similar in terms of their melodic structure.

The image shows a musical score for violin in G major (one sharp). The tempo is 'Extrêmement lent et tendre, extatique' and the dynamics are 'p expressif, paradisiaque'. The score is divided into two sections: 'Violon | thème' and 'répétition'. The 'thème' section consists of a three-measure phrase starting on G4, moving to A4, B4, and C5, with a fermata over the final note. The 'répétition' section is a similar three-measure phrase starting on B4, moving to C5, D5, and E5. Both phrases feature triplets of eighth notes.

**Example 42:** Example of a Double Sentence from *Louange à l'immortalité de Jésus*, (Introduction to the Movement)

The melodic lines, ups and downs of the phrases, are reminiscent of the late-Romantic period. When evaluated harmonically, the use of chord structures that are not functional but occasionally contain tonal colors draws attention. This is also a practice used in the late-Romantic period. Messiaen preferred such a musical style in order to fully reflect the extra-musical motivation of the movement (Ode to the Immortality of Christ).

Immediately after this double phrase, the piece continues as follows (Example 43). The parts marked with the symbol X are entirely based on the pitches of Mode 2. The melodic structure consisting of the pitches of Mode 2 (announced by the violin) proceeds over the harmonic movements in the piano, which are not functional but contain tonal colors causing certain tonal associations.

**Extrêmement lent et tendre**

Violon (sur le Sol) *mf avec amour* (sur le Ré)

Piano *mf*

*pp* *cresc.* 3 3 3 3 3 3

*pp* *cresc.*

*f* *dim.*

*f* *dim.*

thème *pp*

*p* *p* *pp*

*mf expressif* *mf*

Example 43: Use of Binary Sentence in *Louange à l'immortalité de Jésus*

The marked motives in Example 43 are versions of the motif below (Example 44), developed by interval expansion.



**Example 44:** The Developed Motive

While the violin part undertakes the melodic line described above, the piano repeats a fixed rhythmic structure with dotted eighth-note patterns that lasts approximately thirty seconds. This simple accompaniment in the piano part creates a moment of meditation, symbolizing the sound of church bells (Faller, 2003: 20). The last movement of the piece is in a two-part form; the first part is fifteen bars long, and the second part is eighteen bars long. The first eight bars of each section are identical. Messiaen made regular use of diminished fifths in the violin part. For example, the diminished fifth interval is used three times in the first three bars of the movement (Example 45):



**Example 45:** Diminished Five Interval

The emphasis on the number three (3) in this section is remarkable. The use of the triplet pattern as the most dominant motif in the phrases by changing the melodic intervals and the use of the diminished fifth interval three times on the same triplet rhythmic pattern in the first three bars of the movement is too systematic and too conscious to be merely a coincidence. Considering that the movement is composed on elements such as Jesus, the ascension of the Child of God towards his Father, the Divine Presence and Heaven, it will be clearly understood that the insistence on the number three (3) with musical devices is a symbolization of the Holy Trinity (the Father, the Son and the Holy Spirit).

Messiaen's melodic lines continue to rise as the movement progresses and reach extremely high register. At the very end of the movement and the end of the whole *Quartet* as well, the highest pitch in the entire work's range is reached. This final section, which involves the harmonic playing of the note E with an indirect reference to the E Major tonality, is a virtual representation of the ascension of Jesus Christ as a human being. The slow ascent to the extreme heights of the violin part -'heaven'- depicts "the ascent of a Man to God, of a Child of God to His Father, of a Divine Being to Heaven" (Example 46).

In this last passage, which concludes the movement and the work, there is a musical reference to the concepts of 'victory' and 'praise', as well as the serene character of the music. The "Praise of the Immortality of Christ" is not accomplished in a loud and exaggerated manner, but in a rather solemn and serene character, reflecting His spiritual maturity. The *Quartet for the End of Time* closes in this fashion.



The musical score is divided into three systems, each with a vocal line (V on) and a piano accompaniment (piano).

**System 1:** The vocal line begins with a dynamic of *mf* and the instruction *avec amour*. It features a melodic line with triplets and a key signature of two sharps (D major). The piano accompaniment starts with *mf* and includes a section marked *pp* with a *cresc.* instruction. Performance directions include *sur le Sol* and *sur le Ré*.

**System 2:** The vocal line continues with triplets and a dynamic of *f cresc.*. The piano accompaniment features a complex texture with chords and moving lines. Dynamics include *ff*, *dim.*, and *dim. sempre*. Performance directions include *un peu ralenti* and *Au mouvt*.

**System 3:** The vocal line concludes with a dynamic of *ppp*. The piano accompaniment features a section marked *ppp* and *perdendosi*. Performance directions include *un peu ralenti* and *Au mouvt*.

Example 46: Louange à l'immortalité de Jésus, Melodic Ascension



## CONCLUSION

In this study of Olivier Messiaen's *Quatuor pour la fin du temps*, it was found that the work contains many non-Western elements in terms of the utilized compositional techniques. At the same time, non-musical elements play an important role directly or symbolically. Elements of traditional Indian music, medieval hymns (plainchant), synesthesia, bird-songs and the composer's mystical side as a church organist and his Roman Catholic faith were observed as the main factors shaping the general musical language of the work.

Despite the composer's use of numerous structural techniques and methods in the *Quartet*, the most dominant element that constitutes the mystical and timeless aspects of his music is a mystical motivation that comes from the composer's deep Roman Catholic faith and his personal interpretation of this faith. According to the findings of the comprehensive analyses, the *Quartet* is primarily based on Messiaen's religious mysticism. All other elements, methods and contexts are meticulously planned and constructed to serve this mystical approach.

A striking example that supports this determination is Messiaen's use of Indian rhythms not to make any ethnic music reference, but for a very different purpose, to symbolize the concepts of timelessness, eternity and uncertainty in the musical dimension. In other words, the composer completely abstracted an element borrowed from an external source from its original framework and used it for the purposes of his own musical language. This approach is the primary feature that makes Messiaen's compositional language in the *Quartet* extremely unique.

Messiaen's writing exhibits a rather intricate character at certain points in the work, and separate compositional techniques, which are quoted from different sources and have no organic connection with each other, move simultaneously in a vortex. The composer did not aim to use a complex musical texture for the sake of complexity in the *Quartet*; the primary aim was to depict non-musical concepts, phenomena and symbols in a dense narrative. Messiaen used the different materials in his palette in a very meticulous, balanced and tight organization. In this controlled organization of the work, the composer's personal formulas as explained in his book 'Technique of My Music Language' play an important role. Almost all of the melodic, harmonic and rhythmic structures are modelled on these formulae. This personal and meticulous organization, despite the simultaneous use of different materials, makes the work coherent and relatively easy to perceive both in theoretical and aural dimensions.

In the work, a musical environment has been created that proposes a spiritual experience beyond the human need for space and time. All the elements that make up the *Quartet* are structured in the contexts of infinity, stillness, awareness and uncertainty that emerge through the manipulation of color and time. Even the moments of silence that stop each theme are important in terms of serving these contexts. Without compromising his compositional principles, the composer was inspired by his personal vision of the human race and the natural environment, as well as the unseen mystical world and Heaven, and transferred this inspiration to the notes, that is, to the aural/sensory dimension, with a personal compositional approach that exhibits an intricate character.

*Quatuor pour la fin du temps* occupies a privileged place in the 20th-Century chamber music repertoire as one of the most valuable works of Olivier Messiaen, displaying his musical language and his sophisticated compositional techniques. Since it was premiered in 1941, the *Quartet* has been widely performed all over the world by numerous ensembles and musicians.

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