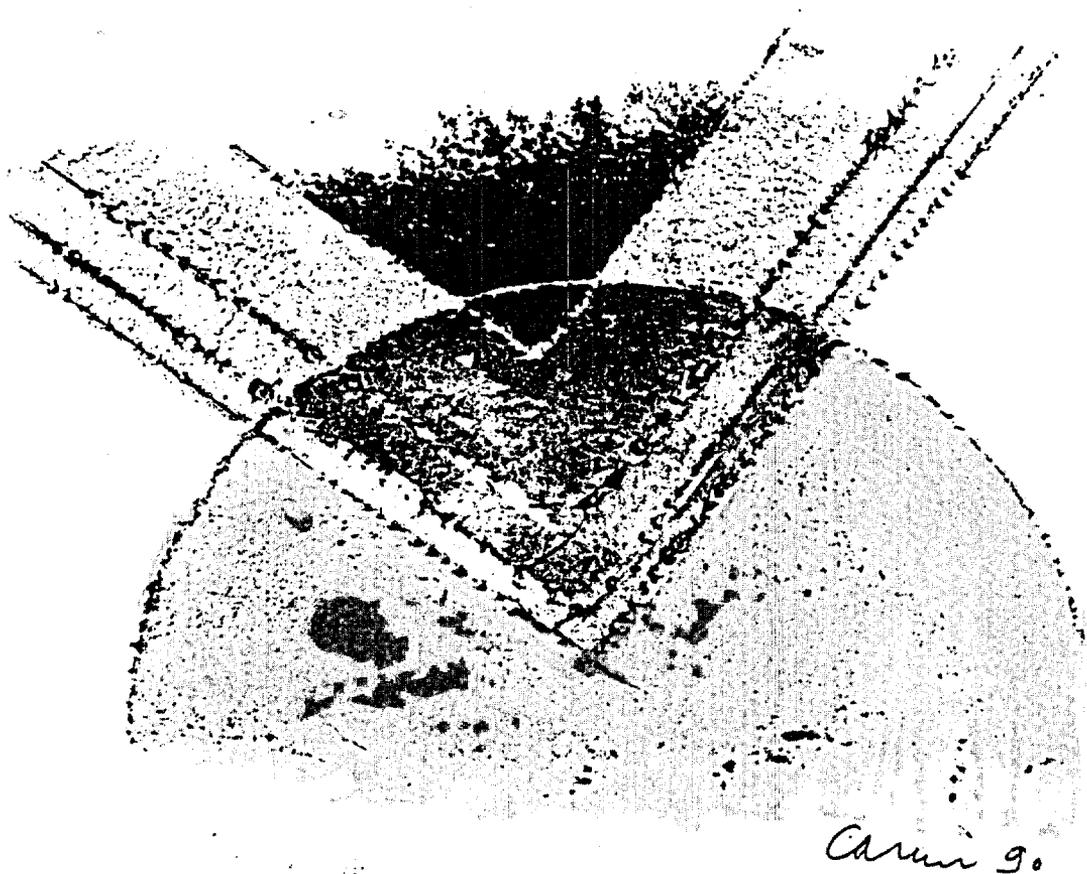


# Symmetry: Culture and Science

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**SYMMETRY: CULTURE & SCIENCE**

**SYMBOLIC REPRESENTATIONS OF DIVINE ATTRIBUTES  
IN THE MUSICAL LANGUAGE OF OLIVIER MESSIAEN  
EXEMPLIFIED IN HIS PIANO CYCLE  
“VINGT REGARDS SUR L'ENFANT JESUS”**

Siglind Bruhn

Musicologist, music analyst, concert pianist, (b. Hamburg, Germany, 1951).

*Address:* Department of Musicology, Institute for the Humanities, University of Michigan, Mailing address: 1308 Broadway, Ann Arbor, MI 48105 U.S.A.; E-mail: siglind@umich.edu

*Fields of interest:* Twentieth century musical languages, performance practice in 18th century music, linguistics and literature of Romance and Chinese languages.

*Publications:* *Die musicalische Darstellung psychologischer Wirklichkeit in Alban Bergs 'Wozzeck'*, Bern: Peter Lang Verlag, 1986, 450 pp.; Arnold Schoenberg's Wind Quintett - analysis of the third movement, *Austrian Journal for Music Analysis*, 1987; Helmut Eder's Violin Concerto, In: Scholz, G. (ed.), *Austrian Dodecaphonics after World War 2*, 1988; The Socratic approach to teaching music, In: *Music Education: Facing the Future*, Proceedings of the 19th World Conference of the International Society for Music Education, 1990; *How to Play Bach's Little Piano Pieces*, Penerbit Muzikal Malaysia, 1990, 87 pp.



Since the beginning of sacred music in the Christian tradition, composers have created musical symbols to express transcendental ideas. These included the use of certain keys and modes, the choice of specific intervals perceived as connected to religious concepts (from the chromaticism in laments over human sinfulness to God's perfection in the octave), the shaping of pitch lines for special images of visual symbols (see e.g. the manifold melodic outlines tracing the shape of the Cross), as well as the translation of Christian terms into their numerological equivalents and their embodiment in the form of rhythmic, metric or otherwise countable units. This development reached its peak in the sixteenth and early seventeenth centuries when an already very elaborate musical rhetoric coincided with a heightened desire for mystical expression.

Olivier Messiaen (1908-1991) was deeply familiar with this tradition. In over forty years of service as organist at La Trinité in Paris, he perpetuated a legacy handed

down to him through compatriots like César Franck. Regarding music as ‘an act of faith’ which, according to his treatise “*La technique de mon langage musical*”, aims above all “to express with a lasting power our darkness struggling with the Holy Spirit”, he developed a unique musical language which includes a wealth of symbolism.

This article investigates Messiaen’s musical representation of the attributes of the Divine in the case of his “*Vingt Regards sur l’Enfant Jésus*” (1944). The aim is to show stringent correlations between characteristic features of rhythm, harmony and mode, melody and structure on the one hand and the contents and images provided in Messiaen’s theological reflections which preface and accompany the music in each of the ‘regards’ on the other hand.

It is obviously impossible, given the constraints for a presentation in a journal, to do justice to every aspect and nuance of the work and its spiritual background; thus choices for a selection of phenomena had to be made. I have decided not to touch on two areas which, as far as I can see, have been dealt with to a considerable extent elsewhere, namely visual symbols (like the cross-wise arrangement of pitches on the keyboard for the Theme of the Cross) and numerical allusions, of which there are many. Instead, I will concentrate mainly on three areas: symmetric organization of tonal material, symmetric and dissymmetric organization of time values, and symmetric as well as asymmetric growth processes.

Each of these fields of musical symbols is introduced briefly in its abstract idea. Particular manifestations of any symbol are then tentatively interpreted in light of the spiritual context of the piece in which the symbol first occurs. Wherever more abstract symbols concur with distinct thematic units to express an essential attribute, these themes are included in the investigation, both for a more complete picture of the musical representation of an idea and for confirmation and/or modification of the hermeneutic interpretation. Finally, the musical symbol or group of symbols is traced in its most significant appearances throughout the cycle, in an attempt to further deepen the understanding for correlations between the musical phenomenon and the spiritual quality it depicts.

## **Ia SYMMETRIC TONAL MATERIAL: MESSIAEN’S “MODES OF LIMITED TRANSPOSITION”**

As Messiaen expounds in his treatise “*The Technique of My Musical Language*”, he was fascinated by the idea of choosing pitch content in such a way that it would both create a distinct colour and allow reference to various ‘tonal’ areas. He found a systematic solution in modes based on strictly repetitive interval groups. These modes – created, in the language of the study of symmetry, by translation of a small basic unit – allow far fewer than the twelve transpositions possible for the modes of Western music. Due to their inner repetition, transposition by certain intervals will cause the pitch content to run into itself.

As a basis for Messiaen’s “Modes of limited transposition” we can regard the phenomenon of equidistance in pitch content, and observe that the number of transpositions possible increases with the size of the interval from which the inner

repetition is generated. (Note that Messiaen includes the original version in counting the number of transpositions.) Here is the catalogue of equidistant organization within the octave:

<i>equidistance occurs</i>	<i>result in the</i>	<i>repetition after</i>	<i>no. of transpositions (incl. original)</i>
<i>in scales</i>	<i>chromatic scale</i>	<i>1/2 tone</i>	<i>1</i>
	<i>whole-tone scale</i>	<i>2/2 tones</i>	<i>2, on C+C<sup>#</sup></i>
<i>in chords</i>	<i>diminished seventh</i>	<i>3/2 tones</i>	<i>3, on C+C<sup>#</sup>+D</i>
	<i>augmented triad</i>	<i>4/2 tones</i>	<i>4, on C+C<sup>#</sup>+D+D<sup>#</sup></i>
<i>of interval</i>	<i>tritone</i>	<i>6/2 tones</i>	<i>6, on C+C<sup>#</sup>+D+D<sup>#</sup>+E+F</i>

Various composers (including Rimsky-Korsakov, Ravel, and Stravinsky in his octatonic scale) are credited with having experimented with symmetric modes. Probably the first to base a series of works on his own, artificial mode was Scriabin (see, e.g., his piano sonatas nos. 6 to 10). Messiaen adopts the 'Scriabin scale' as his mode 2 (after the whole-tone scale for mode 1) and adds five new patterns. Although he does not offer this explanation, I prefer to introduce these modes in their relationship to the above-mentioned equidistant phenomena within the octave.

- mode 2 = 1 semitone + 1 whole tone  
repeated on the notes of the diminished seventh chord, three transpositions possible
- mode 3 = 1 whole tone + 2 semitones  
repeated on the notes of the augmented triad, four transpositions possible
- mode 4 = 2 semitones + 1 minor third + 1 semitone  
repeated on the tritone, six transpositions possible
- mode 5 = 1 semitone + 1 major third + 1 semitone  
repeated on the tritone, six transpositions possible
- mode 6 = 2 whole tones + 2 semitones  
repeated on the tritone, six transpositions possible
- mode 7 = 3 semitones + 1 whole tone + 1 semitone  
repeated on the tritone, six transpositions possible

**(a) Equi-distant pitch groups**

The chromatic scale

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The whole-tone scale

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The diminished-seventh chord

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* * * * *
    
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The augmented triad

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The tritone

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**(b) Messiaen's modes**

Mode 2 (1:2, three transpositions)

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Mode 3 (2:1:1, four transpositions)

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Mode 4 (1:1:3:1, six transpositions)

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Mode 5 (1:4:1, six transpositions)

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Mode 6 (2:2:1:1, six transpositions)

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Mode 7 (1:1:1:2:1, six transpositions)

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* * * * *
    
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Figure 1

## Ib SYMMETRIC TONAL MATERIAL: F# MAJOR SCALE AND F# MAJOR SIX-FIVE CHORD

More often than not in Messiaen's music (both within the "Vingt Regards" and in other compositions), we find local accidentals instead of a designated key signature. A notable exception, however, is the signature indicating an F# major context. Although those of Messiaen's pieces which are notated in this key signature are by no means tonal – and thus require a wealth of additional accidentals – the composer seems to make a specific point by deliberately providing the general key signature. This fact thus invites further investigation.

Two features immediately connected to Messiaen's use of the F# major context assist in detecting the composer's likely criterion for the choice of just this key. One is the fact that he prefers the F# major chord, in the overwhelming majority of cases, in the first inversion. This is the most 'symmetrical' of the possible chord positions, featuring a central perfect-fourth interval flanked by thirds on either side (albeit necessarily one major and one minor third). The second feature is the tonic six-five chord which, again, Messiaen employs almost exclusively in the first inversion. Within the simple four-part chord, the notes of this chord – A#C#D#F# – accomplish a perfect symmetry: a central major second is framed by minor thirds on either side.

Proceeding one step further and placing the chord onto the keyboard, in the position clearly preferred by Messiaen, one recognizes that there is a striking visual symmetry anchored in the keyboard's central D – and this visual symmetry applies equally to the entire F# major scale whose pitch content presents itself in perfect bilateral symmetry on a keyboard instrument.



Figure 2: F# major scale and six-five chord and F# major scale: visual symmetry on the keyboard

## Ic THE THEMATIC REPRESENTATION OF LOVE

At this point, I would like to illustrate my abstract account of Messiaen's symbols by giving concrete examples for the phenomena mentioned so far, together with a possible hermeneutic interpretation. For this purpose, I will introduce two of the prevalent thematic ideas of the cycle. The first, named *Theme of God*, is intrinsically connected with Messiaen's preferred mode (mode 2) and his preferred tonal context (F# major).

Example 1: Messiaen's *Theme of God*

The *Theme of God* is introduced in the first piece of the cycle, "Look of the Father". The key signature is F# major and the entire piece (except for two odd notes in the coda) is based on mode 2. All three possible transpositions of the mode appear, employed in such a way that they clearly create the illusion of representing the functional areas of tonic, dominant and subdominant with reference to F#, and thus subtly enhancing the impression of tonality not truly supported by the modal pitch content:

Figure 3

'T' = mode 2<sup>1</sup>: F# G AA# | B# C# D# E  
 'D' = mode 2<sup>2</sup>: C# D EE# | G G# A# B  
 'S' = mode 2<sup>3</sup>: B C DD# | F F# G# A

tonal layout:    b.1-3m = T      b. 3m-6m = D    b. 6m-8 = T, D, T, D  
                   b.9-11m = T      b.11m-14m = D    b.14m-19 = T, D, T, S, D, T

The two structurally corresponding sections of the piece as well as the coda are entirely based on the thematic material of the *Theme of God*. The texture is simple, presenting only three different parts which are multiplied in a unison of up to six octaves. In the absence of any other material, all musical features adopt the hermeneutic implications connected with this theme. Seeking an interpretation which relies on the verbal remarks prefacing the piece, I would like to draw attention to three details. Firstly, the composer writes "Look of the Father" – not "Look of God", although he later chooses "Look of the Virgin" instead of an expected "Look of the Mother". Secondly, in the subtitle of this piece, Messiaen quotes from Matthew 3:17 'And God says: "This is my beloved Son in whom I am well pleased"'. Thirdly, he indicates the desired mood of the piece with the words "mysterious, with love". Summing up all this evidence, one can interpret the *Theme of God* as the thematic symbol of GOD'S LOVE. This conclusion in turn sheds light on the spiritual significance of the other phenomena characterized so far. I thus propose the following first group of symbols:

attribute	symbol	musical category	appearance
GOD'S LOVE	<i>Theme of God</i>	<i>thematic phrase</i>	<i>horizontal</i>
	<i>F# major six-five</i>	<i>chord</i>	<i>vertical</i>
	<i>F# major</i>	<i>tonal context</i>	<i>overall</i>
	<i>mode 2</i>	<i>pitch content</i>	<i>overall</i>

A second thematic symbol important in this context is a short motive which Messiaen named *Theme of Love*. Its pitch content does not stem from any of the modes but presents another example of bilateral symmetry:  
 F# G# AA# B | CC# DD# E#

The *Theme of Love* shares with the *Theme of God* two essential traits: the melodic beginning on A<sup>#</sup> in the top voice and the conclusion on the “chord of love”. These common features, together with the allusion to the concept of ‘bilaterality’, invites an interpretation of Messiaen’s *Theme of Love* as a symbol for the human LOVE OF GOD, as well as the love of one another.



Example 2: Messiaen’s *Theme of Love*

This leads to the following second group of symbols:

attribute	symbol	musical category	appearance:
<i>LOVE OF GOD</i>	<i>Theme of Love</i>	<i>thematic phrase</i>	<i>horizontal</i>
	<i>F# major six-five</i>	<i>chord</i>	<i>vertical</i>
	<i>A# melodic focus</i>	<i>pitch</i>	<i>top voice</i>

Since the melodic beginning with A<sup>#</sup> and the conclusion in an F<sup>#</sup> major six-five chord characterize both attributes, these symbols will from here onwards simply be referred to as the ‘note of love’ and ‘chord of love’ respectively.

## Id THE SYMBOLS OF “GOD’S LOVE” AND THE “LOVE OF GOD” THROUGHOUT MESSIAEN’S “VINGT REGARDS”.

In two instances, the complete musical message of the initial piece recurs intact. The fifth piece of the cycle, “Look of the Son upon the Son”, is conceived as a variation of “Look of the Father”. It literally quotes the entire thematic argument of the *Theme of God*, which appears in a supporting position, as the lowest of three clearly distinct strands within a texture that could be described as three homophonically singing choruses. The middle and upper strand each contain chord progressions related neither among themselves nor with the *Theme of God*, and representing two different modes (modes 4 and 6 against mode 2 in the *Theme of God*). While an in-depth interpretation of these two strands and their relationship with the divine and human aspects of the Son will request further investigation, the reading of the third strand seems safe: GOD’S LOVE in its encompassing and original form ‘supports’ the difficult duality of the Divine Son and the child of Bethlehem.

The second variation of “Look of the Father” is heard at the very end of the cycle, in the final section of the final piece, “Look of the Church of Love”. The concept of this section as a variation of the “Look of the Father” seems to musically confirm Messiaen’s prefacing words whereby “The grace makes us love God as God loves

Himself'. The piece significantly comes with F<sup>#</sup> major key signature and features the F<sup>#</sup> major six-five chord throughout the coda.

Beyond these striking recurrences in its entirety of the piece which epitomizes GOD'S LOVE, there are further suggestive allusions created by one or more of the symbols subsumed within the first group. Piece XI, "First Communion of the Virgin", portrays Mary's love of the child growing in her womb, whose divine nature has been revealed to her in the Annunciation. GOD'S LOVE is powerfully evoked here by a repeated quotation of the initial phrase of the *Theme of God*, in a version very close to the original thematic material. Interestingly, the concomitant mode 2, dominating bars 1-20, is here occasionally countered by material in mode 4. As will be shown in more detail below, this is the mode Messiaen uses repeatedly for the Infant Jesus.

The initial phrase of the *Theme of God*, in the original tonal context of F<sup>#</sup> major but now enveloped in toccata passages, appears also in the tenth section (b.161-204) of "Through Him All Things Are Made" (VI). Here, the *Theme-of-God* phrase is followed by two sequences in the other two transpositions of mode 2, thus providing a 'complete' statement of the modal symbol of GOD'S LOVE. Moreover, it is in this piece that Messiaen introduces, immediately prior to the conclusion of the embellished *Theme-of-God* phrase, his *Theme of Love*. The composer's underlying theology could be rendered as follows: the creation is not only an expression of GOD'S LOVE; the manifestation of GOD'S (complete) LOVE in His creation in turn generates the human potential of love, particularly of the LOVE OF GOD.

Another piece which restates all three transpositions of mode 2 is no.X "Look of the Spirit of Joy". This time, no melodic connection with the *Theme of God* exists. Messiaen's particular use of tonal spheres, however, clearly places this quotation of mode 2 in the immediate context of the symbol group representing GOD'S LOVE: In the fourth section of the piece, the three transpositions of mode 2 appear in sequential phrases following each other very much like those in "Through Him All Things Are Made". Interestingly, Messiaen describes the thematic context for this indirect allusion to GOD'S LOVE with the words "like a hunting song". A possible background for this image can be identified in the composer's subtitle for the "Look of the Spirit of Joy". There he explicitly refers to the "Dieu bien-heureux" – the "blissful God" if we resort to poetic language, but actually, very simply, the happy or cheerful God – cheerful to the degree of presenting himself with a 'hunting song'. The final section of the piece reinforces this connection by stating the 'hunting song' in F<sup>#</sup> major, i.e. in the original tonal context of GOD'S LOVE. It is worth mentioning that this cheerful aspect of GOD'S LOVE recurs later, in a different context. Bars 21-41 of "First Communion of the Virgin" present a development of the *Theme of God* in mode 2<sup>2</sup> in the rhythmic shape of the 'hunting song' – suggesting, presumably, the happiness and bliss of Mary at the thought of the heavenly child in her womb.

Returning to "Look of the Spirit of Joy", the fifth section contains a close reference to the *Theme of God*, in which the original chords, characteristic melodic intervals and strict use of mode 2 are retained, while rhythm, metre and phrase length are freely modified. As a further striking evidence of GOD'S LOVE and its relationship with 'joy' and 'cheerfulness', Messiaen has chosen a subtle but very

powerful device. The initial section of "Look of the Spirit of Joy", referred to as a "fervent dance" combining oriental traits with features of plain-chant style, presents a circling motion in unison interrupted at irregular intervals by sudden percussive clashes (with FF<sup>#</sup>-CC<sup>#</sup>). In the recapitulation of the oriental-dance section, however, the interrupting outbursts are significantly transformed into the F<sup>#</sup> major six-five chord, as if recognizing GOD'S LOVE even in the wildest outbursts of elation!

That GOD'S LOVE is ever-present even in his "Almighty Word" is musically acknowledged in piece XII of the cycle. It contains three recurring motives which, while thematically entirely unrelated to the *Theme of God*, draw very obviously on the pitch content of mode 2.

Piece XV, "The Kiss of the Jesus-Child", also contains many of the symbols epitomizing GOD'S LOVE. F<sup>#</sup> major is indicated as the key signature, every two-bar phrase within the refrain leads to the F<sup>#</sup> major six-five chord, and the two identical codettas in bars 60/61 and 135/136 complete the reference with further statements of the "chord of love". The *Theme of God*, quoted in the refrain in a modification that transcends any mode, is returned to its original format in the central episode (bars 64-73), thus combining the F<sup>#</sup> major context with mode 2<sup>1</sup>. The nineteenth piece of the cycle, "I am asleep, but my heart is awake" which, according to Messiaen's subtitle, refers to the "sleeping Jesus who loves us", contains a similarly multi-layered allusion to GOD'S LOVE. F<sup>#</sup> major here is not only indicated in the key signature but actually appears, in the main section as well as in the final bars of the piece, in completely untainted chords, thus bathing the listener, as it were, in pure love for what in the extremely slow tempo of this piece lasts more than a minute. In-between, mode 2 dominates section B as well as the first half of the Coda, and the "chord of love" is prominently stated at structurally crucial points. Finally in the same piece, the *Theme of Love* is quoted repeatedly. Messiaen thus musically defines Jesus' love for us not only as identical with GOD'S LOVE, but even as the purest manifestation of that love (see the passages in pure F<sup>#</sup> major) and as a further source for the human potential of love.

A piece symbolized by pure LOVE – without distinction between GOD'S LOVE and the LOVE OF GOD – is no. IV "Look of the Virgin". The central note in the main thematic phrases, repeated as an indirect pedal simultaneously in three octaves, is A<sup>#</sup>, the "note of love". As a complement, a repeated F<sup>#</sup> major six-five chord, albeit sounding with many enveloping notes, dominates part of the contrasting material. The two symbols of LOVE jointly cover more than half of the 102 bars of the piece. Messiaen thus clearly designates the Virgin as the epitome of all-embracing LOVE.

## Ie MODES 3-7 AND THE AB MINOR SIX-FIVE CHORD

Owing to the restrictions of space in this presentation, the spiritual correlations of the other modes cannot, unfortunately, be traced in all detail. The following is a very brief account of their occurrence and possible symbolic significance.

Three modes are spiritually linked with the immediate birth of the Holy Child. Mode 7 appears exclusively in no.II "Look of the Star" where it underlies the unison statement of the *Theme of the Star and of the Cross*. Similarly, mode 5 is heard in only one of the pieces, namely in XVI "Look of the Prophets, the Shepherds and the Magi". Mode 3 can be read as a symbol for the CHILD IN THE MANGER. This mode appears prominently in the second episode of the piece "Nativity" (XIII).

When mode 3 occurs in juxtaposition with mode 4 (as e.g. in bars 1-19 of XVII "Look of Silence" where the manger is mentioned in Messiaen's prefacing remark), an additional aspect is added to the event of the Nativity, beyond that of the CHILD IN THE MANGER. The hermeneutic background of mode 4 should probably be identified as THE WORD (LOGOS). This interpretation provides a meaningful link to the usage of mode 4 in the fugue-subject of "Through Him All Things Are Made". In his preface to that piece, Messiaen expands the title by adding a bracket, so that it reads: "through 'Him' (the Word) all things are made". Similarly, the interpolations of mode-4 material into the *Theme of God* in "First Communion of the Virgin" may also be read as a reference to THE WORD becoming flesh.

The joint appearance of modes 6 + 4 seems to point to another duality in Jesus: on the one hand his mission on earth as a personification of THE WORD (mode 4), on the other hand his SUFFERING as a human (mode 6). Messiaen uses this combination twice. In "Look of the Son upon the Son" (V), the chord progression in the first textural strand is drawn from mode 6<sup>3</sup> while that in the second strand represents the pitch content of mode 4<sup>4</sup>, thus depicting that Jesus' divine mission was, from the very beginning, overshadowed by the necessity of his suffering. Significantly then in "Look of the Cross", a piece which is otherwise not modal (see below), the middle-ground chords at phrase-endings recall this duality by taking their pitches from mode 6<sup>3</sup> in the right hand and from mode 4<sup>6</sup> in the left hand.

"Look of the Cross" also features prominently a further musical symbol for Jesus' SUFFERING. This is the A<sup>b</sup> minor six-five chord. As an obvious variant of the F<sup>#</sup> major six-five chord, the "chord of love", it shows Messiaen's interpretation of the crucifixion as an ultimate confirmation of God's love through his suffering during his incarnation on earth.

## II SYMMETRIC AND DISSYMMETRIC ORGANIZATION OF TIME: "NON RETROGRADABLE" (PALINDROMIC OR SELF-MIRRORING) RHYTHMS

Symmetry – whether visual or conceptual – cannot only happen in the realm of space but also in that of time. Messiaen's "non-retrogradable rhythms" are by now famous and hardly need an introduction. They present a study of bilateral symmetry in time values, based on the idea of sequences of rhythmic units which, when read backwards, are identical with themselves. In the interpretation which follows I distinguish three sub-categories.





Figure 4e

Finally, as a further development of the previous two cases, there are phrases consisting of several palindromic rhythm groups followed by a tail in vectorial time organization. This dissymmetric form, more complex than the others, is clearly Messiaen's favorite. (Robert Sherlaw Johnson, in his excellent book on Messiaen, 1975), proves the origin of this rhythmic phrase from a combination of the three Hindu rhythms 'ragavardhana', 'candrakala' and 'lackskmiça' and traces it back through Messiaen's works from "Chants de Terre" onwards.) The composer seems to employ this rhythm to symbolize the alliance of timeless, eternal qualities with time-determined, i.e. earthly concerns. This third category of rhythmic organization will therefore here be referred to as THE MANIFESTATION OF THE ETERNAL IN TIME.

This symbol is introduced in the fifth piece, "Look of the Son upon the Son". As was already mentioned, of the three strands, the supporting lowest one is taken up by the complete quotation of the *Theme of God*, while the first and second strands present a superbly complicated contrapuntal interplay of rhythms. The chord progression in strand 1 extends over thirteen crotchets before repeating. It consists of four three-chord segments in palindromic rhythm, followed by a five-chord tail in gradually increasing note-values.



Figure 4f

The entire phrase is stated three times, thus adding up to a total of thirty-nine crotchets. As a kind of counterpoint, a different chord progression is heard in the second textural layer. This progression is rhythmically derived from the one in the upper strand, by a process of augmentation by 150%, i.e. by increasing each time value by half. This second-level phrase thus stretches over thirty-nine semiquavers, causing its immediate repetition to conclude simultaneously with the third statement of the phrase on the first level.



Figure 4g

The theological implications of this musical image are numerous but may well surpass the competence of a music analyst. Fairly accessible and not too daring seems the following interpretation: Messiaen depicts the relationship between the Son and the Son by showing the two aspects to be at once distinctly different in appearance (in their two unrelated chord progressions which even draw, as was mentioned earlier, on two different modes) and nevertheless intrinsically identical, proportionate to a degree that they “meet in the end”. The divine and the human nature of Jesus, His mission as a manifestation of THE WORD and his SUFFERING as a man on the cross, are musically re-created as two differently sized perspectives of the same truth – perspectives which converge in the end. Messiaen speaks of “the marriage of human and divine natures in Jesus Christ ...”.

The same rhythmic phrase which Messiaen introduced in “Look of the Son upon the Son” as a symbol of THE MANIFESTATION OF THE ETERNAL IN TIME recurs on several occasions throughout the cycle. The most revealing restatement occurs in the initial section of the seventeenth piece, “Look of Silence”. The pianist’s two hands present again two different chord progressions whose pitch contents are taken from two different modes. This correspondence in layout is striking, although the actual chords are unrelated to those in the “Look of the Son upon the Son”. Even more revealing is the fact that the left-hand progression is based on the same mode (mode 4<sup>4</sup>) as that of strand 2 in the earlier piece. Finally, the contrapuntal organization in this section of “Look of Silence” is identical with that in “Look of the Son upon the Son”: a triple statement of the rhythmic phrase in the right hand is countered – and finally met – by a double statement of the augmented version of the same rhythmic progression. Messiaen’s verbal description provides two clues for an interpretation. Prefacing piece no. XVII he writes on his notion of silence: “... each silence of the manger reveals music and colours that are the mysteries of Jesus Christ”. Inversely, the sub-heading of “Look of the Son upon the Son” refers mysteriously to the “birds of silence”.

A further recurrence of the same rhythmic progression is found in “Through Him All Things Are Made” where it underlies the second three-part stretto of the subject (see section VI, bars 26-34) and thus symbolically links God’s creation to the idea of THE MANIFESTATION OF THE ETERNAL IN TIME. Finally, the fourteenth piece, “Look of the Angels”, develops the spiritual implication of the rhythmic phrase even further. Presented in the same three-part stretto as that heard in the piece dedicated to God’s Creation but based here on repeated tritone intervals, the rhythmic phrase is here present in each of the six stanzas and thus interprets also the “Look of the Angels” in the context of THE

MANIFESTATION OF THE ETERNAL IN TIME. According to the composer's words in the subtitle, "the amazement of the angels increases: for it is not with them but with the human race that God has united Himself".

Besides this crucially important rhythmic phrase, Messiaen has invented another example within the same category – that of a rhythmic phrase consisting of several palindromic segments followed by a tail in vectorial development. This one is much shorter (only two mirrored segments and a three-note tail) and counters, in "Through Him All Things Are Made", the perfectly mirror-symmetric statement of the fugue-subject with a subject fragment which is developed in nine versions of asymmetric interval increase (see below). Interestingly, these nine modified repetitions of the subject fragment in the left hand are out of synchronization with the five repetitions of the palindromic subject statement in the right hand. Without wanting to overstretch the hermeneutic importance of details, it comes to mind that Messiaen wishes to give a musical depiction of an essential trait of all creation: It is both timeless (sharing in the eternal qualities of its creator) and time-dependent (as a manifestation in our mortal realm). While there is undoubtedly a higher order, when trying to understand the purpose and inner logic of creation at any particular moment in time, we are likely to perceive these dual aspects as unsynchronized and extremely confusing – as confusing as bars 50-58 of the sixth "Regard" must appear to the unsuspecting listener. (Yet another case – slightly different because the 'tail' is somewhat vaguely defined due to *stretto* position – features very prominently in the ninth piece, "Look of Time". As one of only two contrasting phrases which make up the entire piece, Messiaen wrote a *stretto* imitation a rhythmic progression. Its non-retrogradable segment – originally containing three chords of 8, 4 and 8 semiquavers respectively, decreases and increases in the course of the piece (see 6+3+6 and 10+5+10 semiquavers in the recurrences of the phrase). The 'tail', however, remains unchanged throughout all restatements. This case is interesting because of a remark with which the composer prefaces the piece, "le temps voit naître en lui Celui qui est éternel" which could be freely translated as "Within Time is born He who is eternal" – confirming our interpretation of this rhythmic phenomenon as THE MANIFESTATION OF THE ETERNAL IN TIME.)

### III SYMMETRIC AND ASYMMETRIC GROWTH PROCESSES IN TIME AND SPACE

Messiaen has dedicated substantial portions of his treatise "The Technique of My Musical Language" to musical phenomena symbolizing the concept of gradual augmentation. Summing up his many examples one can identify mainly three areas where such processes apply: time (gradually growing or diminishing note values), register (gradually increasing or contracting intervals), and phrase structure (expansions or abbreviations on the horizontal plane).

In the realm of time, there are three closely related ways in which growth occurs. The first and simplest option is given where the number of smallest time units in consecutive key strokes is steadily augmented, usually by one increment at a time. In a second case, strokes of increasing duration alternate with strokes of fixed value. Finally, in a third setting, development of time values takes place on two

simultaneous levels – growing on one layer, diminishing on the other which may either run simultaneously or alternate in interlocking bars.

In the realm of register, the most noteworthy phenomena are Messiaen's famous "asymmetric augmentations". An original pitch outline is stretched and oddly distorted as if reflected in a mirror with an undulating surface.

Structural growth occurs when recurring statements of a phrase or motive are expanded by external extensions at either side, by internal extension or inserts, or by a gradually growing tail or transition.

While growth processes in the realm of time clearly represent an irreversible development, those in register can take all forms – from fairly symmetrical distortions resembling those generated by regularly curved mirrors through strongly dissymmetric ones to 'collapsing' and partly overshadowing processes. The examples of structural growth appearing in Messiaen's "Vingt Regards" include both symmetric and vectorial processes.

The attribute all three kinds of growth processes seem to relate to is perhaps best captured in the word TRANSFORMATION. Aspects of this concept include the realms of the Word becoming flesh (in the exchange of divine and human nature in Jesus), the Word engendering reality (in the Creation), and the Word spawning a living faith (in the Church). There is also an element of transformation by rapture (in the Spirit of Joy, Mary's perception of the God within her womb, and the reaction of the angels).

In Messiaen's "Vingt Regards", representations of rapture are found in the tenth piece, "Look of the Spirit of Joy" in which the composer translates what he perceives as "ecstasy of the Holy Spirit" into vertical contraction; the concave-mirror process aptly creates an impression of introversion which contrasts with the very extroverted joy in the fervent dance earlier in the same piece. In "First Communion of the Virgin" (XI), by contrast, Mary's growing elation is appropriately depicted in processes of expansion, whereas the Angels in piece XIV seem to have 'mixed feelings': Messiaen's words which accompany a coda of irregular vertical expansion and contraction refer to their "increasing amazement, for it is not with them but with the human race that God has united Himself".

Two pieces share the feature of rhythmic contraction and expansion. In XVI "Look of the Prophets, the Shepherds and the Magi", the initial section depicts an essential aspect of the prophets by gradually accelerating repetitions of a bass chord, seen as if 'from the other side' in the retrograde recapitulation of the final section. The same bass chord initiates the same rhythmic acceleration in the initial section of XVIII "Look of the Awesome Unction"; here, the reverse process of gradually increasing values is superimposed in the treble, and the juxtaposition is further intensified by vertical contraction (chromatically ascending chords in the left hand against descending ones in the right hand). Again, the final section of the piece presents a retrograde recapitulation, thus concluding the "Awesome Unction" with an expansion into the extreme registers of the keyboard. The relationship of material in these two pieces presents an important help for understanding Messiaen's intention in using the otherwise difficult wording

"awesome unction": he seems to refer to Christ as "the Anointed One", whose coming and mission on earth had been announced by the prophets.

A complex texture of steady elements surrounded by vertically expanding and contracting ones defines the third piece of the cycle, "Exchange" which refers, in the composer's words, to the "terrible human-divine commerce" where "God becomes Man to turn us into gods". The twelve-fold modification of a two-bar unit, evolving an immense crescendo, gives a powerful impression of the unbelievable transformation taking place as word becomes flesh.

Finally, two pieces combine all the various musical growth processes. In no. VI "Through Him All Things Are Made", God's Creation is depicted as a seemingly unending chain of transformation on all levels and in all dimensions, including vertical expansion and contraction, horizontal developments of growth and shrinking, and interlocking processes of expansion and contraction in time. By contrast, the "Look of the Church of Love" (XX) is entirely governed by musical representations of surge. Internal as well as external symmetric growth of material on the one hand, vertical expansion in register and horizontal expansion in rhythmic values on the other hand can be read as representing the growth of faith in both depth and breadth, passionate dedication and profound understanding.

## CONCLUSION

As my presentation has attempted to show on the basis of a selection of examples from his piano cycle "Vingt Regards sur l'Enfant Jésus", Messiaen's musical language can indeed be read as symbolic, containing particularly representations of divine attributes and other transcendental concepts.

It is intriguing although by no means surprising to notice that superior order, regularity and symmetry reign in all musical symbols referring to divine properties as such; see, among others, the symmetric properties of tonality, mode and chord chosen for GOD'S LOVE as well as the symmetric organization of time values in the symbols of the ETERNAL. Figurative expression of organic development and dissymmetry, on the other hand, occurs where the composer portrays the intersection of the infinite with the finite realm; see e.g. the vectorial conclusions in the rhythmic symbols of the MANIFESTATION OF THE ETERNAL IN TIME and the manifold growth processes representing the idea of TRANSFORMATION. It is hoped that this analysis may open eyes and ears to the hermeneutic qualities contained in this work's components.

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