# ASPECTS OF STRUCTURE IN OLIVIER MESSIAEN'S VINGT REGARDS SUR L'ENFANT-JÉSUS 

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School of Music

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# ASPECTS OF STRUCTURE IN OLIVIER MESSIAEN'S "VINGT REGARDS SUR L'ENFANT-JÉSUS" 


#### Abstract

The paper explores various structural aspects of the 1944 masterwork for piano, Vingt Regards sur l'Enfant-Jésus, by Olivier Messiaen (1908-1992). Part One examines elements of the composer's style in isolation, focusing principally on the use of the modes of limited transposition to generate diverse tonal styles, as well as the use of form and "cyclical" or recurring themes and motifs to both unify and diversify the work.

The author divides Messiaen's tonal styles into three broad groups. The first, closest to traditional tonality, is based on mode 2 , while the second, with its whole-tone and bitonal associations, relies on modes 1 and 3 respectively. The use of modes 4 through 7 generate essentially atonal harmonic structures.

Forms in the Vingt Regards are treated variously as unipartite, simple repetitive forms of two or three ideas, more elaborate sectional forms, or adaptations of traditional forms. Fifteen of the twenty pieces fall into the first two categories, leaving only five whose forms could be described as complex. At the same time, various musical processes frequently enrich and transform the basically simple sectional structures, creating complex and evolving masses of patterned sound.

Along with the three principal themes identified by the composer in the preface to the score, eight other themes and motifs are discussed. Musical associations and relationships between these themes are also examined.


Part Two presents six analyses showing how the elements previously described interact in larger contexts. Pieces numbers $2,9,11,13,15$, and 16 are analyzed in whole or in part.

Five synoptic tables of features in the Vingt Regards make up Appendix 1, while Appendix 2 gives English translations of some of the French titles and terms in the score. Appendix 3 reproduces Messiaen's comments-not found in the score or published elsewhere-on each of the twenty pieces.

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Pour Marie-Claude, Laetitia, Ingrid, et Malika, avec tout mon amour.

## PREFACE

Four preliminary remarks of a technical nature are in order. The first concerns the lack of bar numbering in the score-a frustrating omission for the analyst. A rather more awkward heirarchical system of reference will be used instead, providing a compound number enclosed within braces to locate passages by page, system and bar. For example, the last bar of the Regard de l'étoile would be designated \{7-6-3\}, while bar 7 of the Première communion de la Vierge ("Un peu plus lent") would be \{77-4-1\}. ${ }^{2}$ A specific sequence of bars will be indicated by an initial bar location followed by a colon and the total number of bars under consideration, as follows: \{14-3-3: 3 bars\}. The use of three dots after a normal bar reference implies an unspecified number of bars following the first. Occasionally, other indications such as "r.h.," "l.h." (right and left hand, respectively),"middle staff," and so on will be added to help locate a reference even more specifically. Only in a few instances where the counting can be done quickly and easily, or where bars are numbered in an example, will ordinary bar number references be used. For brevity's sake, the captions of musical examples throughout the paper will indicate in this manner only the first bar of each score excerpt.

The second deals with Messiaen's modes of limited transposition. In the composer's designation of transpositional levels by means of numerical superscripts, a mode number with no superscript (implying ${ }^{1}$ ) indicates a mode

[^0]untransposed from its referential level on the pitch-class C. Each successive increase of the superscript represents an upward semitonal transposition of the original. Mode $6^{3}$, for example, indicates a transposition of mode 6 upwards by two semitones-that is, beginning on D (or $\mathrm{A}^{\mathrm{b}}$ )—and $4^{4}$ a transposition of mode 4 upwards by three semitones. ${ }^{3}$ In addition to Messiaen's numerical symbols, the author will at times assign a "fundamental" pitch-class to a particular transposition in order to underline tonal relationships more clearly.

The third remark concerns the use in this document of French titles and terms and their English equivalents. (The reader will find a complete listing in Appendix 2.) Generally speaking, the use of the original French has been retained as preferable in many instances. In this category fall the work's title and the titles of individual pieces as well as the names of the three principal and some secondary themes. Concerning the spelling and appearance of titles and names, the following rules have been observed: (1) all titles and theme names published in the score are italicized; (2) the principal theme names are capitalized only when used as titles or captions; (3) terms of my own invention such as "Noël motif" appear in quotation marks.

Finally, Messiaen's examples from volume 2 of Technique of My Musical Language will be acknowledged in full ("Technique, vol. 2, ex. \#345") to distinguish them from the examples appearing in this document.

[^1]
## INTRODUCTION

This paper will explore various structural aspects of Olivier Messiaen's 1944 masterwork for piano, Vingt Regards sur l'Enfant-Jésus, focusing principally on the composer's use of the modes of limited transposition to generate diverse tonal styles, as well as his use of form and "cyclical" or recurring themes and motives both to unify and diversify the work.

The term "tonality" is used here in its broadest possible sense to denote the harmonic-melodic organization of a wide range of musical material, ${ }^{4}$ and yet it has also been chosen for the connotations of traditional (major-minor) tonality that it conveys, for, as will be seen, the Vingt Regards show a tremendous variety of musical textures and styles, ranging from the harshest of atonal passages to the use of perfect cadences where traditional dominant chords resolve to major triads.

It is by no means obvious how such diverse styles of pitch organization can be made to coalesce into a unified, coherent musical language, ${ }^{5}$ yet Messiaen implies that his "modes of limited transposition" are structured so as to accommodate, if not encourage, just this sort of tonal hybridization:

They are at once in the atmosphere of several tonalities, without polytonality, the composer being free to give predominance to one of the tonalities or to leave the tonal impression unsettled. ${ }^{6}$

[^2]In fact, it will be argued that Messiaen's modes of limited transpositioncentral to his compositional technique, and one of the earliest elements to be used and codified-generate a tonal language capable of a spectrum ranging from virtual tonality to modality (a quasi-tonal, intermediary language) to atonality. In this sense they are highly adaptable, and therefore rich in expressive musical potential. This paper will examine, then, the specific ways in which the modes of limited transposition are used to obtain such a spectrum of musical styles.

The majority of the formal structures in the Vingt Regards are simple ones, easily comprehensible to the listener. Four pieces are based exclusively on single ideas, while eleven others consist of repetitive patterns of two or three ideas. Only five pieces of the twenty can be considered complex in form. Through simplicity of formal structure and repetition, Messiaen allows the listener greater liberty to concentrate on thematic, timbral and rhythmic details of the music.

Most of these simple, sectional structures are nevertheless enriched or transformed by four musical processes (rhythmic canons, rhythmic pedals, progressively accelerating or progressively slowing series, and asymmetrical expansion) whose use is not just ornamental; in one case, an entire piece (L'échange, No. 3) consists of nothing more than a single process-one complete asymmetrical expansion cycle.

A musical process could be described as a pattern of musical change that evolves in measured increments along a pre-ordained path to a predictable conclusion. A process is akin to the working out of a mathematical function on a given set of numbers, and the description of any particular process entails a
definition of both the nature of the function itself and of the material to be acted upon.

Repetition (on both small and large scales) and musical processes are ubiquitous in the Vingt Regards, and have a strong musical impact on the listener, as well as a symbolic meaning for the composer. Both reflect, in musical terms, eternity. For Messiaen, static and unchanging repetition illustrates the vastness of eternal time, while the inexorable quality of the musical process seems to represent the imponderable, unknowable, and humanly inaccessible workings of God.

It is my opinion that the unalterable nature of the various musical processes is another manifestation of what Messiaen called the "charm of impossibilities," briefly outlined in chapter one of his 1944 treatise:

One point will attract our attention at the outset: the charm of impossibilities.... This charm, at once voluptuous and contemplative, resides particularly in certain mathematical impossibilities of the modal and rhythmic domains. Modes which cannot be transposed beyond a certain number of transpositions, because one always falls again into the same notes; rhythms which cannot be used in retrograde, because in such a case one finds the same order of values again-these are two striking impossibilities. ${ }^{7}$

Form and tonality are arguably two of the most salient aspects of Messiaen's musical style-rhythm and sonority being, of course, no less impor-tant-and both features are audible even to a relatively unsophisticated listener. Without underplaying the obvious complexities of the score, it is precisely this quality of overall structural clarity blended with tonal variety, from

[^3]simple to complex, that contributes to the fascination of Messiaen's music. An underlying premise of this paper is that most of the essential compositional processes in the Vingt Regards are, in fact, audible; what might be termed "theoretic" concepts can generally be heard in a good performance of the work. The third aspect of the score under discussion here, the use of recurring themes and motifs, is also an eminently audible compositional device.

Of the three principal "themes" identified and discussed in Messiaen's preface to the score, only the theme de Dieu is likely to be perceived as a true recurring theme. ${ }^{8}$ It is heard numerous times and in many guises, but remains instantly identifiable, and is often accompanied by subordinate ideas. The other two themes never rival the first-appropriately enough, given that the first represents God. As the thème de l'étoile et de la Croix is used only twice in the two-hour work, its symbolic or spiritual importance is dwarfed by the musical context. Moreover, the theme itself, like a long, slow and unchanging cantus firmus, is surrounded on all but its first presentation by other material that tends, by virtue of greater rhythmic activity, to take the foreground. The thème d'accords, ostensibly a four-chord sequence, is treated in exactly the opposite way; ubiquitous, short, and constantly changing, it appears in various rhythmic guises and registers of the piano, often in association with other related themes, and almost always in climactic, densely chromatic contexts that effectively camouflage the theme itself.

Numerous other motifs, techniques and sonorities contribute to the work,

[^4]and will be discussed along with the principal themes in the following chapters. The relationships between these and the principal themes, suggesting family groupings of thematic ideas, will also be explored.

Part One of this document will examine individually (and, to a certain extent, out of context) the three areas outlined above: the use of recurring themes and motifs, the use of the modes of limited transposition in generating different kinds of tonality, and the types of formal structures employed. Chapter one serves as a preface, defining idiosyncratic terms pertinent to the ensuing discussion. The analyses of Part Two demonstrate, in the context of the musical work as a whole, how the individual elements relate and interact.

## PART ONE

## ASPECTS OF STRUCTURE

## CHAPTER 1

## DEFINITION OF TERMS

There are a certain number of techniques of primary importance to Messiaen's musical language and style, and many of them bear idiosyncratic labels. A number of these are, therefore, defined below. Terms marked by an asterisk are the composer's.

## Pitch-class techniques

1. Asymmetrical expansion*
2. Black-key/white-key sonorities
3. Modes of limited transposition*

## Harmonic structures

4. Chords in fourths*
5. Chords of resonance*
6. Chords on the dominant*
7. Harmonic litany*

## Rhythmic processes and constructs

8. Augmented or diminished rhythms* (rhythmic variants)
9. Groups of very short and very long values*
10. Non-retrogradable rhythms*
11. Progressively accelerating/progressively slowing series*
12. Rhythmic canons*
13. Rhythmic pedals*
14. Sharngadeva ("Hindu") rhythms
15. Tâlas 1 and 2 (Johnson)

## Other techniques

16. Cadential splash of color
17. Number symbolism
18. Variation and commentary*

## 1. Asymmetrical expansion

Asymmetrical expansion is a process of pitch-class transformation involving the varied repetition of a basic pattern or unit, usually one bar long. On each repetition, the notes of the basic pattern are progressively transposed by semitones in diverse ways: some rise, some fall, and some remain unchanged. Given that each transposition is by semitone increments, the twelfth step in the process reproduces the original pitch-classes.

Ex. 1 Asymmetrical expansion.
From Regard de l'Esprit de joie (No. 10), [62-1-2].


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In example 1, the left hand consists of a basic cell-one bar of five notes. Notes 1 and 4 move up by one semitone per bar. Notes 2 and 3 move down by
the same amount, while the last note remains unchanged from bar to bar. In the right hand part, the last note remains similarly unchanged (and on the same pitch-class as the fixed left-hand note, E). The first note of each group (of three) is transposed down, while the second and third notes of each group are transposed up.

One Messiaen scholar has suggested that this transpositional process is "one of the most important developments for this work," and sees it playing "a role in the work as a whole similar to that of a cyclic theme." 9 Note the parallel here in the pitch domain to the composer's concept of "personnages rythmiques" [rhythmic characters]: "...three rythmic groups are present: the first augments, it is the attacking character-the second diminishes, it is the character attacked-the third never changes, it is the immobile character."10

## 2. Black-key/white-key sonorities

These characteristic sonorities, indigenous to the piano, are produced by juxtaposing or superposing two distinct sets of notes, one produced on the black keys, the other on the white. They may present themselves in various forms: as chromatic clusters, grace notes, arpeggios, or as independent strata in a complex texture.

Example 2a shows a black-note cluster in the right hand against a whitenote cluster in the left (the left hand's missing F appears as an E\# at the top of the right-hand group), while example 2 b shows a black-note/white-note alternation in the right hand with a typical "grace note" style in the second half of

[^5]the bar. Example 2c shows black/white stratification by register in the right hand ostinato (see also p. 154), also typical of Messiaen's keyboard style.

Ex. 2 Black-key/white-key sonorities.
(a.) Regard des hauteurs (No. 8), \{49-1-1\}.

(b.) Regard du silence (No. 17), \{130-4-1\}.

(c.) Regard de l'étoile (No. 2), \{7-4-1\}.

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It should be added that typical "dissonant" intervals-characteristic of

Messiaen and virtually every other 20th-century composer-such as minor seconds, tritones, major sevenths, minor ninths and so on, are, by sole virtue of keyboard topography, bound to be black/white in nature in most instances. For this reason, only those passages which show a clear black-key/white-key separation, and which can not be easily explained another way, will be cited as examples of black-key/white-key sonorities.

## 3. Modes of limited transposition

Messiaen described seven different modes of limited transposition, ${ }^{11}$ each "formed of several symmetrical groups, the last note of each group always being common with the first of the following group." These groups divide the octave symmetrically into (subdivided) cells of either six whole-tones (mode 1), four minor thirds (mode 2), three major thirds (mode 3 ), or two tritones (modes 4 through 7). The modes are of "limited transposition" by virtue of their internal symmetries; beyond a certain number of transpositions, the pitchclasses reproduce earlier forms of the mode, thereby simply beginning, on a different starting note, an earlier transposition, rather than producing a different transposition per se. Messiaen draws attention to the parallel between his modes of limited transposition and non-retrogradable rhythms.

Because of this symmetrical division of the octave into identical cells, each mode may have as many pitch-class "roots" as it has cells. Following Messiaen's example, the convention of beginning each mode on $C$ shall be kept, even though this is not always the most "intuitive" way of understanding the intervallic structure of the modes, nor does it reflect the "prime form" of set

[^6]theory. ${ }^{12}$ The seven modes, discussed thoroughly in chapter three, are reproduced in example 3 below.

## Ex. 3 The seven modes of limited transposition.



The modes can be grouped in various ways. Mode 1, for instance, could form the basis of a "modes 1-3-6" family, mode 6 adding two pitch-classes, and mode 3 adding three pitch-classes to mode one's six, in a straightforward manner not requiring transposition. Similarly, modes 4 ( 8 pcs ) and 5 ( 6 pcs ) can be
${ }^{12}$ Bryan R. Simms' presentation of the modes in his Music of the Twentieth Century: Style and Structure (New York: Schirmer, 1986), 405, will be found to conflict with the composer's own version. Simms has rewritten them in "normal order" and in so doing, has, in fact, transposed them, although they all appear to start on C. Messiaen himself, however, is not always consistent in his own presentation of the modes in Technique. Example \#303, for instance, divides the intervals of mode 3 differently than in the illustrative example of the mode, \#329. This has probably been done deliberately, in order to maintain certain pitchclasses in common between the two different modes while retaining a common starting note, A.
seen as progressively more truncated versions of mode 7 ( 10 pcs ), again without transposition. Of course, modes 4 through 7 all subdivide the tritone in various ways and are, therefore, by their very nature, associated. Modes 1 and 2 could also be added to the "modes 4-5-6-7" tritone-subdivision family, but this would overlook the very essence of the "limited transposition" concept as defined by the smallest symmetrical units of each mode. ${ }^{13}$

Mode 2 blends readily with the other modes, yet remains distinct enough (largely through its use in tonal-sounding passages) to warrant separate treatment, both from a theoretic and pragmatic point of view.

Finally, all seven modes share the pitch-class F\# (and, of course, C). Given the importance of the key of F\# in the piece (see pages 75 and 83-85), it is interesting to note this coincidence of mode structure with the composer's choices of key, which are generally made on the basis of color and sonority.

## 4. Chords in fourths

These are six-note chords of alternating augmented and perfect fourths, having close ties to the 5th mode of limited transposition and its characteristic melodic formula (see pp. 79-80). Incomplete three-note "chords in fourths" are a permanent feature of Messiaen's music and do not owe allegiance to the fifth mode. ${ }^{14}$ In example 4b we see a short series of four- and five-note chords in fourths.

[^7]Ex. 4 Chords in fourths.
(a.) Technique, vol. 2, ex. \#213.
(b.) Regard de l'étoile (No. 2), \{7-3-1\}.


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## 5. Chords of resonance

These complex eight-note chords contain "nearly all the notes perceptible, to an extremely fine ear, in the resonance of a low C..." and characteristically are voiced as a dominant-seventh chord in the left hand with a half-diminished chord in the right (ex. 5a). They are frequently found, as in example 5b, in a succession of different inversions, "bring[ing] forth an effect of a stained-glass window." ${ }^{15}$ (Note that the four chords of resonance circled in example 5c are virtually identical to the first four chords of 5b.) Chords of resonance have an affinity with mode 3 , using all but one of its nine notes.

## Ex. $5 \quad$ Chords of resonance.

(a.) Technique, vol. 2, ex. \#208.


[^8]
## Ex. 5 Chords of resonance, continued.

(b.) Technique, vol. 2, ex. \#212.

(c.) Le baiser de l'Enfant-Jésus (No. 15), \{114-5-2\}.

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## 6. Chords on the dominant

These seven-note chords contain all the notes of a major scale, and are generally preceded by two-note appoggiaturas, as in example 6a. Like the chord of resonance, the chord on the dominant is also frequently found in a multicolored succession of different inversions and voicings, each transposed to maintain a common bass note (ex. 6b). Example 6c, a "harmonic litany," inverts this process by suspending the different inversions and voicings of the chords on the dominant below two unchanging tones ( E and D ) in the top voice.

Ex. 6 Chords on the dominant.
(a.) Technique, vol. 2, ex. \#203.

(b.) Technique, vol. 2, ex. \#204.

(c.) Première communion de la Vierge (No. 11), \{81-5-1\}.


Ex. 6c © 1947 by Durand S.A. Editions Musicales, Paris, avec l'aimable autorisation de l'Editeur.

## 7. Harmonic litany

"The harmonic litany is a melodic fragment of two or several notes repeated with different harmonizations."16 Notice the (inversional) symmetry of this procedure, with its pedal tones on the top of the texture, to that of
${ }^{16}$ Messiaen, Technique, 53.
chords on the dominant with their multicolored succession of different inversions above a common bass note. The continuation of the harmonic litany of example 7 a is seen (in association with chords on the dominant) in example 6c. Example 7b shows a litany below the notes $G$ and $F$.

## Ex. 7 Harmonic litanies.

(a.) Première communion de la Vierge (No. 11), \{81-2-1\}.

(b.) Regard du silence (No. 17), \{129-4-1\}.

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## 8. Augmented or diminished rhythms (rhythmic variants)

The technique of lengthening or shortening the values of a given rhythm-
either exactly or inexactly-is fundamental for Messiaen, and is usually applied to a small initial cell (of two or three notes), followed closely by its resultant series of variants. While exact augmentation and diminution is by no means new (Messiaen's mathematical proportions are somewhat original, however), the inexact variants with their added values form something substantially different, and the unprepared listener could well miss the connections between an original and its variants.

Ex. 8 Table of augmentations and diminutions. From the preface to the Quartet for the End of Time.
(a.) Exact.

(b.) Inexact.


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Example 8a shows various exact augmentations and diminutions, while 8 b gives an example of inexact diminution: "classic diminution" of three quarter notes is altered by the addition of a small value (dot) to the central eighth note.

Tâla 1 provides a further example of a series of rhythmic variants created by inexact augmentation and diminution (see pp. 27-30). The composer observes that "with very inexact augmentations or diminutions, one arrives at making rhythmic variants rather than augmentations or diminutions properly so called." ${ }^{17}$

Ex. 9 Groups of very short and very long values.
(a.) Par Lui tout a été fait (No. 6), \{30-1-1\}.

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[^9]Ex. 9 Groups of very short and very long values, continued.
(b.) Par Lui tout a été fait (No. 6), \{44-4-2\}.

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## 9. Groups of very short and very long values

Messiaen extended the idea of contrasting short and long single note values to that of contrasting groups of notes whose sum totals are very short and very long. Example 9 provides two excerpts with contrasting textures, based on nearly the same rhythmic proportions. The first features constant, vigorous melodic movement, as opposed to the static chordal repetition of the second. It is perhaps symbolic that, by creating a long group from many short repeated chords (as in ex. 9b), Messiaen melds the very short and the very long into complementary aspects of a single passage.

## 10. Non-retrogradable rhythms

A non-retrogradable rhythm is one whose retrograde is identical to its original form. The second half of such a rhythm is actually a retrograde of the first half, with a central value common to both halves (see exx. 10 and 14). Messiaen draws attention to the parallel between non-retrogradable rhythms and his modes of limited transposition, crediting both with the "charm of impossibilities."

## Ex. $10 \quad$ Non-retrogradable rhythm. <br> From Regard de l'Eglise d'amour (No. 20), \{158-3-1\}.


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## 11. Progressively accelerating/progressively slowing series

These are rhythmic processes where one perceives an apparent gradual speeding up or slowing down of a pulse. In fact this is accomplished-within a fixed, unchanging tempo-by steadily and incrementally increasing or decreasing the notated values (usually from one to sixteen, or from sixteen to one sixteenth-note values). Messiaen describes the resulting series as a "chromatic scale of durations." The two processes may occur separately, as in the
opening and closing sections of Regard des prophètes, des bergers et des Mages (No. 16), or simultaneously, as in the first nineteen bars of Regard de l'Onction terrible (No. 18). ${ }^{18}$

## 12. Rhythmic canons

Rhythmic canons apply the canonic principle to rhythms without simultaneous melodic canon. Successive entries are typically very close, creating stretto-like textures such as seen in No. 9, Regard du temps \{55-1-3...\}. Rhythmic canons in the Vingt Regards are often associated with specific, recurring rhythmic patterns such as tâlas 1 and 2 (see pp. 27-30).

## 13. Rhythmic pedals

A rhythmic pedal is a "rhythm which repeats itself indefatigably, in ostinato... without busying itself about the rhythms which surround it": ${ }^{19}$ an ostinato, in a word. Note that it can be, but is not necessarily associated with a repeating chordal or melodic cycle of corresponding or differing length. In other words, it may be part of an "isorhythmic" construction (although Messiaen himself did not use that term).

The rhythmic pedal in No. 5, Regard du Fils sur le Fils (bottom staff, p. 18), carries the thème de Dieu whose five-chord ostinato constitutes an island of F\# major tonality independent of the surrounding atonal rhythmic canon,

[^10]while the rhythmic pedal in No. 12, La parole toute-puissante (bottom staff, pp. 84-89), is built of a single non-retrogradable rhythm-the first cell of tâla 2whose recurrences are separated by exactly seven sixteenth-note values of rest.

## 14. Sharngadeva ("Hindu") Rhythms

As a student, Messiaen was stimulated by his study of the Sangîtaratnâkara, a list of 120 deçi-tâlas (rhythms from the provinces) compiled in the first half of the 13 th century by the Indian musician Sharngadeva. ${ }^{20}$ By 1935 he was incorporating what he termed "Hindu rhythms" into his own music (La Nativité $d u$ Seigneur), though in distinctly non-traditional ways, freely adapting and developing the rhythms to his own ends. Consequently, Messiaen's use of these rhythms can in no way be regarded as "authentic"the "Hindu" label should simply be considered as the composer's ackowledgment of their source. ${ }^{21}$

Certain rhythmic features that appealed to Messiaen were appropriated and amalgamated into his own musical language in much the same way that he later incorporated Peruvian folklore and religion (Harawi, 1945), and even

[^11]birdsong-for all the extensive and detailed ornithological fieldwork he did. In fact, the various musical influences, whether Grecian, Indian, or European common practice, are often so inseparably intertwined with the original elements of Messiaen's idiosyncratic rhythmic style that, at times, ascribing a particular inspiration or source seems, if not altogether arbitrary, at least debatable.

Ex. 11 Eight Sharngadeva rhythms used in the Vingt Regards. (From R. S. Johnson, Messiaen, Appendix II: "Table of 120 deçi-tâlas according to Sharngadera" [sic], pp. 206-210.)
(a.) Rhythms of primary importance.
\# 51 -vijaya: d.d.
\# 58 - dhenkî :

\# 101-simha:

(b.) Component rhythms of the tâla 1 pattern.
\# 88-lakskmîça :

\# 93-râgavardhana:

\# 105-candrakalâ :

(c.) Rhythms used independently.
\# 26b - miçra varna :

\# 73-vasanta :


Example 11 illustrates eight of these rhythms (chosen for illustrative purposes only-the list is not meant to be exhaustive) grouped into three categories: (a) rhythms fundamentally associated with many important and secondary themes of the work; (b) rhythms associated with "tâla 1 "; and (c) rhythms used exclusively in particular pieces. Their numbering and names are those found in Johnson's Messiaen, but the beaming of separate notes into groups is an alteration.

The first group (a) includes three rhythms all containing a similar initial cell of three values in a long-short-long pattern of five units exemplified by \#58, dhenkî. Often described as a "Cretic" rhythm, it is found commonly in the Vingt Regards. Dhenkî is pervasive in No. 9, Regard du temps (both for the melodic sections and the rhythmic canons built on its proportions; see Analysis $\mathrm{N}^{\mathrm{o}} 2$ ), and is also found associated with the thème d'amour variant in No. 10 (pp. 63-66, "comme un air de chasse, comme des cors"), with the thème de Dieu in No. 11 (p. 79, l.h.), and with the non-retrogradable rhythm of the opening of No. 20 (p. 158). The very similar \#51, vijaya, is the basis for the thème de Dieu (with its initial long value broken into three equal shorter notes) as seen in No. 15, Le baiser de l'Enfant-Jésus (p. 113f., as a rhythmic and melodic pedal). The third rhythm, \#101, simha, adds two cadential eighth-notes to the basic cretic cell. Simha can be seen as the basis for the thème d'amour variant in No. 10 just cited: its initial three-note cell is repeated before adding the final eighth-notes.

The second group (b) also includes three rhythms, the first two of which resemble each other closely. Messiaen himself illustrated their presence in tâla 1, where \#93, râgavardhana, is used (in doubled values, retrograded, with its longest value subdivided into three equal values) to generate the first six notes,
followed by \#105, candrakalâ, (in halved values), and finally by \#88, lackskmîca, which produces the last four notes by means of doubled values. (See ex. 12.)

The third group (c) illustrates the eclecticism of the composer in his development of compositional material. The opening volley of bells that punctuates No. 13, Noël, four times is based on rhythm \#73, vasanta. Here its use is somewhat obscured by rhythmic displacement: while vasanta has the appearance of a bar of $3 / 8$ followed by a bar of $3 / 4$, in this case it sounds like a bar of $4 / 4$ with an extra eighth-note tacked on to the end (especially since Messiaen favored small added values that destroyed symmetry in just this fashion). Rhythm \#26b, micra varna, (meaning "mixture of colors" in Sanskrit) is used for the fragmentation of the thème d'accords variant heard in the same piece.

Ex. 12 Derivation of tâla 1 from Sharngadeva rhythms \#93, 105 and 88.
\# 93 - Râgavardhana:

\# 105 - Candrakalâ:

\#88-Lakskmîça:


Tâla 1:


The following question naturally arises: how does one determine if a particular rhythm in a Messiaen score is a "Hindu rhythm," a Greek rhythm, a
derivation of one of these, or simply an original rhythm that pleased the composer? (All of the above could be plausible in a given situation.) It was suggested at the outset that aspects of all these elements are "often inseparably intertwined" in such a way that attempts to attach definitive labels seem debatable, if not altogether arbitrary. Given that many of the 120 deçi-tâlas consist of small note values in asymmetrical groupings and that Messiaen's rhythmic techniques favor exactly such formations through the use of added values or slight variation designed to undermine symmetry, it becomes apparent that for virtually any such rhythmic cell in the score, a corresponding Sharngadeva rhythm could be found. It seems preferable, therefore, to consider Messiaen's rhythmic techniques to be a matter of individual artistic expression, rather than to seek exotic roots to justify or explain that techniqueeven though the composer repeatedly drew attention to such sources of inspiration.

## 15. Tâlas 1 and 2 (Johnson)

In chapter four of Messiaen, Robert Sherlaw Johnson identifies two rhythms used repeatedly in various contexts by Messiaen, and inspired by certain features of the 120 deçi-tâlas that proved to be so influential in the composer's development. ${ }^{22}$ He gave them the labels "tâla 1" and "tâla 2," and their particularities and use in the Vingt Regards are examined below.

Tâla 1 has already been discussed in terms of its derivation from the deçitâlas \#93, 105, and 88 (see example 12). In the following discussion it will be analyzed as a series of variants using inexact augmentation and diminution.

22 Johnson, ibid., 37.

Tâla 1 is employed in several works from Chants de terre et de ciel (1937) onward, ${ }^{23}$ and is discussed in Messiaen's Technique (1942: vol. 1, chapter 4) and in the preface to the Quartet for the End of Time (1941). It is used in the Quartet as a continuous rhythmic pedal in the piano part of the first movement, Liturgie de cristal. There the rhythmic series of seventeen values runs simultaneously with a series of twenty-nine chords, creating an "isorhythmic" texture of cycles whose individual elements repeat exactly, but whose resultant total configuration is always different.

One sees here an instance of the composer's predilection for prime numbers (17 and 29) as well as for sequences of rhythmic variants (based on a fundamental cell of three quarter-notes). Messiaen describes the rhythm thus:

> A typical formula of our rhythmic fancies, it contains a combination of augmented rhythms and added values, and, at the same time, inexact augmentations and diminutions; further, it begins with an interpretation of the râgavardhana...; finally, the total of its values is thirteen quarter notes (a prime number). ${ }^{24}$

The whole rhythm consists of the basic cell (A), three rhythmically modified cells, and a final section of increasing values ambiguously related to the original cell. Messiaen illustrates the rhythm as composed of cells of exact augmentation or diminution (A), inexact augmentation or diminution (B), or, in the final bar, two abbreviated and altered cells (see example 13 , where the + indicates an added value). Other interpretations are also possible. ${ }^{25}$

[^12]This rhythm is used in Nos. 5, 6, 14, and 17 of the Vingt Regards, always in sections of rhythmic canon. In Regard du Fils sur le Fils (No. 5) and Regard du silence (No. 17), it is the basis of two-part rhythmic canons, with the second voice augmented in each case by the "addition of a dot." The Regard des Anges (No. 14) uses tâla 1 in straightforward three-part rhythmic canon, while the three-part texture in Par Lui tout a été fait (No. 6) features it in both normal and retrograde forms. ${ }^{26}$

Ex. 13 Tâla 1 as a series of rhythmic variants. From Technique, vol. 2, ex. \#28.


Tâla 2 is made up of three non-retrogradable cells, separated by barlines (ex. 14), whose proportions, measured in sixteenth-notes, are:

$$
\begin{equation*}
3-5-8-5-3 \tag{a}
\end{equation*}
$$

$$
\begin{equation*}
4-3-7-3-4 \tag{b}
\end{equation*}
$$

(c)

$$
2-2-3-5-3-2-2
$$

It is only found twice in the Vingt Regards. On its first appearance, in Par Lui tout a été fait (No. 6), it forms the basis of two eight-bar rhythmic
${ }^{26}$ See $\{26-4-1\}$ for an example of normal order canon, and \{33-3-4\} for the retrograde form. In the latter instance, tâla 1 proper is preceded by two quarter-notes, with the last note of the middle staff initiating the canon. The other two voices follow in rising order at quarter-note intervals. There is one small deviation from the tâla rhythm in the alto voice (top staff) at \{33-4-2\} where, in the second half of the bar, one sees a sixteenth-note followed by a tied dotted quarter, instead of the expected dotted eighth followed by a tied sixteenth. This is perhaps just a printer's error.
canons, the first in normal order at $\{26-1-1\}$, and the second in retrograde at \{34-3-2]. In La parole toute-puissante (No. 12), only the first cell (a) of tâla 2 is used, as an ostinato (rhythmic pedal) in the bottom staff. In this case, each statement of the cell is set off from the others by rests equivalent to seven 16th-notes.

Ex. $14 \quad$ Tâla 2.
From the preface to the Quartet for the End of Time.

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## 16. Cadential splash of color

Although not discussed by the composer as an element of his style, this sudden, unexpected "chromatic" splash of color is a gesture that nevertheless terminates eleven of the twenty pieces. Furthermore, this effect is also evoked within pieces to highlight section breaks, and is occasionally used to complete a twelve-note aggregate left incomplete by underlying modal structures, as in the opening bar of Regard de l'étoile (No. 2), \{6-1-1\}. Messiaen incidentally describes a typical example of this phenomenon in these terms: "like a blow of instantaneous light!" ${ }^{27}$

In all cases these splashes of color are analogous to what the composer terms "effects of resonance." ${ }^{28}$ They are usually athematic, although they

[^13]can take the form of familiar chord fragments; the thème d'accords lends itself readily to such treatment. Example 15a shows a typical end-of-piece gesture, while 15 b shows the analogous use of a modified thème d'accords at a section break. In the latter, the chord on the downbeat of bar 2 is the principal harmony. The two-handed interjection in the same bar (modified thème d'accords) constitutes superior resonance, while bar 3 shows inferior resonance.

Ex. 15 Cadential splashes of color.
(a.) L'échange (No. 3), last 4 bars, p. 11.

(b.) Noël (No. 13), last 3 bars, p. 90.

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## 17. Number Symbolism

The use of number symbolism has always been a part of Messiaen's compositional process. The most explicit-the use of threes to symbolize the Holy Trinity of Christian theology-is supplemented by a series of more arcane numerological symbols. These, very briefly, are: 6, symbolizing Creation; 7, symbolizing Divine rest; 9 , symbolizing maternity; and 5 , symbolizing any of the persons of the Holy Trinity. ${ }^{29}$

Groups of three are used symbolically by the composer frequently in the Vingt Regards. ${ }^{30}$ Messiaen alludes to such use, however, only twice: "Three sonorities, three modes, three rhythms, three superposed musics," (No. 5) and "Three statements of the thème de Dieu..." (No. 20). The following quotation is evidence that the composer had definite symbolic intentions behind statements affirming a texture conceived in threes: "This organ piece [Kyrie] is written in three voices, supplementary hommage to the Trinity, the form itself being tripartite: three times three." ${ }^{31}$

[^14]
## 18. Variation and Commentary

Some movements have sections designated as variations by the composer, while others simply have variational aspects to their structures. A closely related concept, termed "commentary," is explained in this way:

The commentary is a melodic development of the theme, one in which some fragments of the theme are repeated in the initial key upon different degrees, or in other keys, and are varied rhythmically, melodically, and harmonically. 32

[^15]
## CHAPTER 2

## THEMES AND MOTIFS IN THE VINGT REGARDS

## 1. Introduction

A number of different themes and motifs are used throughout the cycle aside from the three principal themes illustrated by the composer in the preface to the score: the thème de Dieu, the thème d'accords, and the thème de l'étoile et de la Croix. Many of these share common features, suggesting larger groups or families of themes. Others, sufficiently independent to stand on their own, nevertheless show certain motivic connections to the more central material. This section is essentially a comparative analysis of all of the primary, and several of the secondary and lesser themes and motifs of the work.

Generally speaking, one could define a theme as a complete musical idea, rich in significance, that forms the basis of a composition. A motif, on the other hand, is a much shorter figure that recurs throughout a piece, referring to an important idea (musical or extra-musical) in the manner of a leitmotif. A formula is an unchanging musical idea associated with a given mode or style (in a range of different Messiaen compositions) without particular musical links to the piece in which it is found. The motif contributes meaningfully to musical dialogue in a specific piece or passage, while the formula neither influences nor is influenced by its surroundings.

Messiaen's use of the word "theme" seems to encompass both themes and motifs as defined above, and I have maintained his usage. Texturally, the three themes present very different aspects. Taking into account their appearance,
and by the above definitions, one could make the following observations:

1. the thème de Dieu is essentially a motif consisting of a harmonized melody (a traditional homophonic texture);
2. the thème d'accords can be seen as a partially-ordered pitch-class set complex taking many different forms;
3. the thème de l'étoile et de la Croix, a fragment of unaccompanied melody bearing certain similarities to plainchant, acts as an incipit to a complete musical phrase in the traditional sense.

A total of eleven themes will be discussed in this chapter: the composer's three principal themes, and eight secondary themes and motifs, grouped into families as follows: ${ }^{33}$

| THÈME DE DIEU | thème d'amour <br> thème du baiser <br> thème de joie |
| :--- | :--- |
| THÈME D'ACCORDS | accords de carillon (cloches) <br> "motif \#270" |

## THÈME DE L'ÉTOILE ET DE LA CROIX

(Other Motifs) | . style oiseau |
| :--- |
| Boris motif |
| "Noël motif" |

[^16]
## 2. The Thème de Dieu and associated themes

## Thème de Dieu

The thème de Dieu is by far the most important theme, and four reasons can be given to support this conclusion. First, from a theological standpoint, the God theme must necessarily take precedence. Secondly, it is instantly recognizable in eight of the twenty pieces, and plays a significant role in their structure. ${ }^{34}$ Thirdly, the theme establishes, and is almost exclusively linked with, the central tonality of the cycle, F\# major. Finally, it generates three important secondary themes-a fact of numerological importance. In fact, the theme embodies a three-within-three concept: the underlying theme consists of three statements of an F \# major chord, the first of which is itself subdivided into three different chords sharing a common melodic tone, A\#. The thème de Dieu is reproduced in example 16.

## Ex. 16 The Thème de Dieu.

From the preface to the Vingt Regards.

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The first Regard of the set is entirely and uniquely devoted to the exposition of this theme, thereby underscoring its importance, and fixing its form and

[^17]sonorities in the listener's ear.
The thème de Dieu establishes tonality by several means. It is built exclusively on Mode $2^{1}$ —the second mode being the ideal one for generating tonal structures-and was termed "the apotheosis of mode 2" by Halbreich. ${ }^{35}$ Through repetition and temporal prolongation the theme implies a tonic of $\mathrm{F} \#$ major; that triad comprises three of the five chords of the theme, and is sustained for five of its seven beats. Furthermore, the melodic notes A\# and C\# are both "tonic" chord tones. These observations pertain to the theme as illustrated in the composer's preface, but in actual use, its tonicizing features are enhanced through prolongation of the tonic harmony and, more importantly, through the use of reinforcing dominant and subdominant harmonies in traditional harmonic progressions.

It is possible to view the thème de Dieu (as illustrated in ex. 16) as a germ or motif from which several themes in the proper sense of the word are constructed. Whereas the motivic form of the thème de Dieu (or a fragment of it) is used many times throughout the work, its most important manifestations are as full-blown themes of several phrases with an integral standard harmonic pattern: Tonic (twice),

Dominant (twice),
Improvisatory section (cadential movement from V to I ), [Tonic].

[^18]In fact, it is in this full-blown form that the theme will be found in every case examined in chapter three, with the single exception of No. 6, Par Lui tout a été fait, which uses the motivic form of the theme exclusively. A fragment of the "expanded" theme, corresponding to the first statement of the first (tonic) section plus one bar of its repeat, is reproduced as example 17.

Ex. 17 The Thème de Dieu, expanded form. From Le baiser de l'Enfant-Jésus (No. 15), (108-1-1).

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The three themes related to the thème de Dieu-the thème d'amour, thème du baiser, and thème de joie-will be discussed separately below. It will be helpful to point out, nonetheless, three characteristic features of this theme that furnish material for the others:

1. the use of mode 2 and major tonality (often FH major);
2. melodic movement of a descending minor third which concludes the theme, from scale degree 5 to scale degree 3 ;
3. an overall shape of three descending chords followed by an upward leap to an accented chord, which then falls back to its point of departure.

## Thème d'amour

The thème d'amour is a simple melodic and rhythmic variant of its genitor, the thème de Dieu. It is used in four pieces, and seems to have two different forms, short and long (ex. 18).

## Ex. 18 The thème d'amour, long and short forms.

(a.) Long form, from Je dors, mais mon cœur veille (No. 19), \{153-4-1\}.

(b.) Short form, from Par Lui tout a été fait (No. 6), \{39-5-1\}.

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The essential features of the long form (keeping in mind the thème de Dieu) are: three initial descending chords, repeated; a leap up to a strongly accented high point; and a fall back to a sustained tonic. The short form simply consists of the last four notes of the long form.

Although both forms are associated with the thème de Dieu, the two have different characters, the long form mirroring the original more closely, and the short form providing closure for it. The short form of the thème d'amour seems, in fact, to grow straight from the thème de Dieu, continuing and concluding it, as shown in example 19. ${ }^{36}$

Ex. 19 Conflation of the Thème de Dieu and the thème d'amour. From Par Lui tout a été fait (No. 6), \{38-5-1: 4 bars, and 39-5-1\}.

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The thème d'amour lends itself to energetic rhythmic interpretations. Its first appearance is particularly robust, and marked "comme un air de chasse, comme des cors" ["like a hunting tune, like horns"] (see No. 10 at (63-5-2\}). It is presented in a lively $5 / 16$ rhythm, played ff and marked "Bien modéré (mais

36 Although example 19 is an artificial construct and not a continuous excerpt, it does represent the way I hear the passage. The pattern is repeated two more times (see score pp. 40-42) in a sequence rising by major thirds: $\mathrm{F}^{\#}, \mathrm{~B}^{\mathrm{b}}$, and D .
de plus en plus véhément)" [Quite moderate (but increasingly vehement)], a style that characterizes several passionate or ecstatic thème de Dieu passages. ${ }^{37}$ Conversely, it is also used in quiet, floating, timeless contexts, as in the opening bars of No. 19, Je dors, mais mon cceur veille. Messiaen used this theme again-still symbolizing mystical love-in his next orchestral work, Turangalîla-Symphonie (1946-48). ${ }^{38}$

## Thème du baiser

This new theme, used exclusively in the climactic section of No. 15, Le baiser de l'Enfant-Jésus, is simply marked "Le baiser" by the composer. ${ }^{39}$ Like the fully-expanded thème de Dieu, it is a true theme developed from a motif. It shares several traits in common with its parent theme, such as:

1. a key signature of $\mathrm{F}^{\#}$ major and exclusive use of mode 2 ;
2. three descending chords (underscored with tenuto marks) leading to an accented high note which subsequently falls;
3. a regular, traditional harmonic structure:

Tonic, Subdominant, Tonic, Dominant, Tonic, Dominant, etc.

Messiaen has forged some subtle thematic connections here, for he uses the thème du baiser as a link-a kind of "pivot theme"-between the thème de
${ }^{37}$ See, for example, No. 11 at (79-1-2) and No. 6, pp. 28-29, left hand. The 5/16 rhythm can be identified as deçî-tâla \#58, "dhenkî," or as the "Cretic" rhythm of ancient Greece. Piece No. 9, Regard du Temps, is based entirely on this rhythm and its variants, but provides a strikingly different character-one of mystery and a strange and powerful stillness-from the one usually associated with this rhythm in faster tempos.
${ }^{38}$ R. S. Johnson, ibid., 75, illustrates the similarities in the two versions of the theme, which include the key of $\mathrm{F}^{\#}$ major and the same final melodic pitches: $\mathrm{A}^{\#}-\mathrm{G}^{\#}-\mathrm{F}^{\#}-\mathrm{C}^{\#}$.

39 The section comprises twenty-four bars, from \{117-3-1\} to \{119-3-3\}. Perhaps its use here is not absolutely exclusive; an echo of the thème du baiser in altered form is signalled in No. 19 (see, for example, \{152-3-1...2\}, \{152-4-2...31) in Michèle Reverdy, L'Oeuure pour piano d'Olivier Messiaen (Paris: Leduc, 1978), 56.

Dieu and the very different thème de joie, as will be seen. A fragment of the thème du baiser is shown in example 20.

Ex. 20 The thème du baiser.
From Le baiser de l'Enfant-Jésus (No. 15), \{117-3-1\}.

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## Thème dejoie

Limited to a single piece (but a central and important one: Regard de l'Esprit de joie, No. 10), the thème de joie is a "joyous and vehement" affirmation of tonality in the midst of a percussive atonal sea. At first glance, it does
not appear to have much in common with the thème de Dieu. It is, however, a rhythmic and melodic retrograde (strict in the first case, varied in the second) of the first seven notes of the "baiser" theme, whose contours more obviously recall the thème de Dieu. The thème de joie is shown twice in example 21: simply, as it first appears (21a); and thickly harmonized in homorhythmic style and melodically extended into a four-bar phrase, as heard later (21b).

Ex. 21 The thème de joie.
(a.) Unadorned, in Regard de l'Esprit de joie (No. 10), \{60-5-1\}.

(b.) Harmonized and extended, ibid., \{69-1-1\}.

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The pitch structure of the theme is of the utmost simplicity, being nothing more than a major scale, rising an octave from scale degree 5 to scale degree 5 , and omitting the seventh degree. It is a motif, rather than a true theme, but its use is symbolically important in this piece dedicated to "la joie d'amour du Dieu bienheureux dans l'âme de Jésus-Christ." ${ }^{40}$

Inherent in the melodic structure of the theme are the implied harmonies of $V$ (fourth suspended) and $I$ (in second inversion), the dominant underlying the first four eighth-notes, and the tonic understood below the final two sixteenths and dotted quarter. These harmonies are made explicit when the theme is accompanied, as seen in example 21 b.

Example 22 shows all four of the thème de Dieu-related themes, aligned so as to highlight their motivic similarities.

Ex. 22 The four Thème de Dieu-related themes.


1. Thème de Dieu

2. Thème d'amour
3. Thème du baiser

4. Thème de joie (retrograde of \#3)
[^19]
## 3. The Thème d'Accords and associated themes

## Thème d'Accords

The thème d'accords, ostensibly a sequence of four chords, "circulates from piece to piece, fragmented, or concentrated like a rainbow." ${ }^{41} \mathrm{It}$ is found more often than any other of the three principal themes, appearing in eleven of the twenty pieces. Unlike the thème de Dieu, which is immediately recognizable, the thème d'accords is sometimes difficult to detect due to its extreme brevity and typical placement in densely chromatic contexts which tend to camouflage its use. Moreover, the fragmentation and concentration noted by the composer transfigure the theme even further, so that the listener hears the theme in a variety of configurations: four four-note chords (as illustrated by the composer in the preface, and refered to below as "tetrachords a-d"), two eightnote chords (the harmonies being collapsed into each other, or, in the composer's words, "concentrated"), as an arpeggio, and so on. (Example 24 provides five illustrations of its use.) Because of this multiplicity of forms, the theme d'accords might be better expressed as a set of four unordered (or partially-ordered) pitch-class sets.

In this regard, two different groupings of the theme will prove useful during analysis. The first treats the four successive verticalities as tetrachords a-d, while the second groups the right- and left-hand strata into two four-note collections each, numbered i-iv. ${ }^{42}$ These four-note subdivisions of the thème d'accords will be referred to in subsequent analyses as tetrachords "a" to "d"

[^20]and " $i$ " through "iv" respectively. These groupings are shown in example 23 , where the set-class types (Forte's set-class numbers and prime form notation) and interval vectors are also listed.

## Ex. 23 The Thème d'Accords and its subsets. From the preface to the Vingt Regards.

(a.) Grouped as four successive verticalities.

a. $4-23(0257) \quad 021030$
b. $4-8(0156) \quad 200121$
c. $4-18(0147) 102111$
d. 4-5 (0126) 210111
(b.) Grouped as four quadrants of a sixteen-note array.


| i. | $4-23(0257)$ | 021030 |
| :--- | :--- | :--- |
| ii. | $4-26(0358)$ | 012120 |
| ii. | $4-11(0135)$ | 121110 |
| iv. | $4-23(0257)$ | 021030 |

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Whereas the other principal themes are modally based (thème de Dieu, mode 2; thème de l'étoile et de la Croix, mode $7^{3}$ ), the thème d'accords is not. It does, however, contain all twelve pitch-classes (with some duplication).

Example 24 shows the thème d'accords in some of its different manifesta-
tions in the cycle. In 24a it is heard as four vertical tetrachords, a through d. The grouping is slightly different in 24 b , upper staff, while 24 c presents the "concentrated" version of two octachords (ab, cd)-circled in the example-first as isolated $p p$ interjections (bars 2-3), then as part of a three-chord harmonic pedal (last bar). Note that the first chord of each of these groups of three is a transposition ( $\mathrm{T}_{4}$ ) of the last. The theme is arpeggiated in 24 d using the tetrachord sequence ii-i-ii-i, iv-iii-iv-iii (with two pitch-class discrepancies, circled in the example), and is recognizable, though incomplete, in the bottom staff of 24 e , where it is accompanied by birdsong in the right hand.

## Ex. 24 The Thème d'Accords in various guises in the Vingt Regards.

(a.) Tetrachords a - d, in Le baiser de l'Enfant-Jésus (No. 15), \{114-4-2\}.

(b.) Alternate groupings, in Regard des Anges (No. 14), \{99-2-2\}.

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Ex. 24 The Thème d'Accords in various guises, cont.
(c.) Concentrated, in Je dors, mais mon cœur veille (No. 19), \{156-2-1\}.

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## Ex. 24 The Thème d'Accords in various guises, cont.

(d.) Arpeggiated, in Par Lui tout a été fait (No. 6), \{39-3-1].
(Circled notes are discrepancies: E instead of $\mathrm{C}, \mathrm{G}$ instead of $\mathrm{G} \#$.)

(e.) Incomplete, in Regard des Anges (No. 14), (104-5-2, 1.h.).
(Tetrachords i and iii are incomplete: only 2 pcs in i, and 3 pcs in iii.)

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Sometimes the thème d'accords is disguised or used discontinuously, as in No. 9, Regard du temps (see Analysis $\mathrm{N}^{\circ}$ 2, particularly pages 159-61).

The two motifs related to the thème d'accords, the accords de carillon and "motif \#270," will be discussed presently below. The table in example 25 below summarizes some of the features shared by these themes and motifs.

## Ex. 25 Table of chà aracteristics shared by the Thème d'accords family.

Thème d'accords Accords de carillon Motif \#270

| initial melodic descent <br> of a whole step: | X | - | X |
| ---: | :--- | :--- | :--- |
| alto voice movement of <br> $\mathrm{GH} \#-\mathrm{F} \#$ and/or F\#-G\#: | X | X | X |
| consists of descending <br> 2-chord interjections: | X | X | X |
| voicings of 4-note clusters <br> (not all chromatic): | X | X | - |
| prominent perfect-fourth <br> voicings: | X | X | - |
| forms an aggregate: | X | X | - |

("X" indicates the presence, and "-" the absence of the characteristics on the left.)

## Accords de carillon

The exact configuration of the accords de carillon varies from piece to piece, and even between repetitions within one piece (as does the thème d'accords), but the essential form seems to be a series of four chords with four essential elements:

1. threefold repetition of a melodic pedal tone in the top voice;
2. repetition of mode 1 structures from chord 1 to 3 and chord 2 to 4;
3. chromatic descent between chord pairs 1-2 (whole-tone sonorities) and 3-4 (dominant seventh sonorities);
4. a chromatically descending bass line that underscores the $\mathrm{T}_{11}$ movement in the other elements.

These four essential components are illustrated in example 26b following the motif as it first appears in the Vingt Regards.

The first two chords are predominantly mode 1 (i.e. whole-tone) structures whose essence is seen in the bottom four notes of each. Their roots descend by semitone, sliding from one whole-tone collection to the other. The top notes of chord 2 compose a second-inversion major triad whose uppermost voice is not a member of the underlying mode 1 collection.

The third chord suggests both a structure of superposed fourths and a variation of a chord on the dominant (see ex. 6a, p. 16), but is, in fact, a revoicing of chord 1 , whose essential $B^{b}, C, E, F \#$ is now seen in the right hand above the left hand's fourths. It simultaneously voices a strong second-inversion $D$ dominant seventh sonority.

The fourth contains another second-inversion dominant-seventh chord (C\#) lying a semitone below chord 3 , thereby imitating the descending root movement of the first pair of chords. Taken together, chords 3 and 4 form an aggregate (like the thème d'accords), and also constitute a chord of resonance, with the resonance preceding the fundamental chord, so to speak.

Examples 26a, c and d provide illustrations of the carillon motif (bracketed where necessary), while 26 b sketches the motifs four essential elements. Note that the motif as it appears in examples 26 c and d is a semitone higher than in examples a and b. ${ }^{43}$

[^21]Ex. 26 Accords de carillon.
(a.) As four chords, in Regard de l'étoile (No. 2), \{6-5-2\}.

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(b.) Reduced to four essential elements.

1. Melodic pedal tones
2. Mode 1 structures showing similarity of chords 1-3, 2-4
3. Dominant 7th sonorities (chords 3-4) and others (bracketed)
4. Chromatically descending bass underscoring parallel ( $\mathrm{T}_{11}$ ) movement in other elements


## Ex. 26 Accords de carillon, continued.

(c.) As three chords, in Le baiser de l'Enfant-Jésus (No. 15), \{114-5-1\}.

(d.) As four chords, in Le baiser de l'Enfant-Jésus (No. 15), \{115-2-1\}.

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The thème d'accords and the accords de carillon are also used, separately and in close association, in Messiaen's next composition, Harawi (1945). ${ }^{44}$ There, the carillon motif forms the basis of the first piece. Example 27 compares an accords de carillon passage from the Vingt Regards with the opening bars of Harawi.

[^22]
## Ex. 27 A comparison of the accords de carillon motif in the Vingt Regards and Harawi.

(a.) From Regard de l'Église d'amour (No. 20), \{170-2-1\}.

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(b.) From Harawi: La ville qui dormait, toi (No. 1), mm. 1-3.

(c.) A comparison of chord contents from (a) and (b).

| (chord) | Vingt Regards | $\underline{H a r a w i}{ }^{45}$ |
| :---: | :---: | :---: |
| 1 | $C^{\#} \mathrm{E}^{\#} \mathrm{G}$ B | $C^{\#}(\mathrm{D}) \mathrm{F}$ G B |
| 2 | C ${ }^{\#}{ }^{\text {D }}$ E A B ${ }^{\text {b }}$ | C C\# D E A B ${ }^{\text {b }}$ |
| 3 | $C^{\#} D^{\#} \mathrm{~F}$ G G ${ }^{\#} \mathrm{~A}^{\#} \mathrm{~B}$ | $C^{\#}(\mathrm{D}) \mathrm{D}^{\#} \mathrm{~F}$ G G ${ }^{\#} \mathrm{~A}^{\#} \mathrm{~B}$ |
| 4 | C DEF\# ${ }^{\#}$ | C D $E^{b} \mathrm{~F}^{\#}\left(\mathrm{~A}^{\mathrm{b}}\right) \mathrm{A}(\mathrm{B})$ |

45 Italics indicate altered notes, while brackets indicate additional notes.

## Motif \#270

A brief interjectory two-chord sequence used on several occasions in the Vingt Regards is given by the composer as one example of numerous sorts of "connecting chords." This particular one is example \#270 (ex. 28).

Ex. 28 "Motif\#270".
Technique, vol. 2, ex. \#270.

"Motif \#270" is sometimes extended by sequence into a four-chord motif (with root movement of E-D, D-C; bracketed in ex. 29b), and is often found in association with the thème d'accords. Examples of such associations can be found in the following places:

Regard du temps (No. 9), \{55-1-1: 2 bars (see Analysis N ${ }^{\circ}$ 2, pp. 159-61);
Regard des Anges (No. 14), \{98-3-1: 2 bars);
Regard du silence (No. 17), (131-5-1: 4 bars);
Regard de l'Onction terrible (No. 18), \{141-5-1: 2 bars\};
Regard de l'Eglise d'amour (No. 20), \{170-3-1: 4 bars\}.

It is also found associated with the accords de carillon and the thème de l'etoile et de la Croix in Regard de l'étoile (No. 2: bracketed in ex. 29a).

The first chord of "motif \#270" is a mode 3 structure, and the second could be considered a transposition of the first (at $\mathrm{T}_{10}$, to mode $3^{3}$ ), with the retention of the pitch-class E as a pedal tone, foreign to mode $3^{3}$ but "fundamental"
to the first chord and mode.

Ex. 29 "Motif \#270" in association with other themes and motifs.
(a.) With the accords de carillon, the Thème de l'Étoile et de la Croix and the Thème d'Accords in Regard de l'étoile (No. 2), \{6-5-2\}.

(b.) With the Thème d'Accords in Regard des Anges (No. 14), \{98-3-1\}.

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## 4. The Thème de l'Étoile et de la Croix

This theme, written in mode $7^{3}$, is used twice in the cycle, first in No. 2, Regard de l'étoile, and once again in No. 7, Regard de la Croix. ${ }^{46}$ Messiaen explains why the two symbols are bound into one theme (and, perhaps, why more than two representations would be redundant): "The Star and the Cross have the same theme because one opens and the other closes Jesus's time on Earth." ${ }^{47}$

The given theme seems to be an incipit of a "complete" theme, the first of six short periods making up a complete strophe. The texture is consistently monophonic and unharmonized (and initially, but not thereafter, unaccom-panied)-the first of a series of plainchant-like traits exploited in both of the pieces using this theme, detailed below:

1. unharmonized monophony;
2. the use of predominantly small melodic intervals;
3. basically even note values (i.e. speech-like rhythmic inflection);
4. short, breath-length periods ending with fermata-like pauses;
5. modal organization (around $\mathrm{A}^{\mathrm{b}}$ minor: $\mathrm{A}^{\mathrm{b}}, \mathrm{C}^{\mathrm{b}}, \mathrm{E}^{\mathrm{b}}$ ).

The complete form seems to fit the composer's description of the anthem under the heading "Plainchant Forms."

Alleluias and great anthems will allure us from the very first. My "Subtilité des Corps glorieux" (Les Corps Glorieux) is a large ornamented anthem in one voice without any harmonization: each period

[^23]in it is terminated by a formula of melodic cadence..." ${ }^{48}$

The theme is shown below, example 30a being the "incipit" theme of the composer's preface, and 30b being the first "complete" appearance.

Ex. 30 The Thème de l'Étoile et de la Croix.
(a.) "Incipit" form, from the preface to the Vingt Regards.

(b.) "Complete" form, from Regard de l'étoile (No. 2), (6-2-2\}.

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[^24]An examination of the incipit theme reveals the basis of a tonal structure centered on $\mathrm{A}^{\mathrm{b}}$ (a nominal root of mode $7^{3}$ ). As the first six notes are played, the ear is drawn to $\mathrm{A}^{\mathrm{b}}$ as tonic, leading us to interpret the first two notes as an appoggiatura and its resolution from a semitone above. The next pair of notes ( $\mathrm{B}^{\mathrm{b}}-\mathrm{G}$ ) concentrically surrounds the first, imitating its contours but expanding the range by a semitone in each direction. A third pair recapitulates the first, after which the tonicization of the $\mathrm{A}^{\mathrm{b}}$ is confirmed, at least provisionally, by a leap to the dominant, $\mathrm{E}^{\mathrm{b}}$, itself approached by half-step from below, and lasting one complete bar.

In his dissertation on the Vingt Regards, Charles Seifert suggests the possibility that the composer intended a sort of tactile Catholic symbolism in the keyboard topography of the first four notes of this theme. ${ }^{49}$ In example 31, the pitch names are shown on the keyboard approximately where the fingers would play these notes. Straight lines connecting each pair describe a cross, making for a miniature devotional crossing when the theme is played.

## Ex. 31 Cross symbolism in the Thème de l'Étoile et de la Croix. Score excerpt from Regard de l'étoile (No. 2), \{6-2-2\}.


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${ }^{49}$ Charles Ernest Seifert, "Messiaen's Vingt Regards sur l'Enfant-Jésus: A Historical and Pedagogical Study." (Ed.D. diss., University of Illinois at Urbana-Champaign, 1989), 161.

The form of the complete theme (as it is actually used in Nos. 2 and 7) is a simple one, based on repetition and variation, falling into six periods (ex. 30b):

$$
\begin{array}{lll}
\mathrm{A} B & \mathrm{~A}^{\prime} & \mathrm{B}^{\prime}
\end{array} \mathrm{A}^{\prime \prime} \mathrm{B}^{\prime \prime}
$$

The A sections begin close to the modal centre of $\mathrm{A}^{\mathrm{b}}$ and spiral outward to cadence on an alternate note-twice on the dominant $\mathrm{E}^{\mathrm{b}}$, and the third time on the altered $E$ natural. The $B$ sections begin on a newly introduced $\mathrm{C}^{\mathrm{b}}$ and spiral inwards to cadence on the ornamented tonic, $A^{b}$. The final two periods differ from the previous ones by mixing and combining aspects of A and B. Period five ( $A^{\prime \prime}$ ) adds the cadential ornament from $B$ (transposed), while period six ( $B^{\prime \prime}$ ) combines fragments of both A and B , and also introduces a significant new textural element, the harmonization (or coloration) of the theme in heterophonic style, culminating in a final cadence on $\mathrm{A}^{\mathrm{b}}$ harmonized with the tritone D natural-the pitch-class immediately preceding the first four cadential notes.

Two elements thus imply a primary tonality of $\mathrm{A}^{\mathrm{b}}$ minor in the theme: the structure of the melodic line itself, and the cadential notes of each period, all but one of which are members of an $\mathrm{A}^{\mathrm{b}}$ minor triad. ${ }^{50}$ Example 32 demonstrates this tonal structure by showing, for each of the six periods, the initial principal notes (IN), the pre-cadential notes (PC), and the cadential note (C).

[^25]| Ex. 32 | Table of initial, pre-cadential and cadential tones in the Thème de l'Etoile et de la Croix. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (period) | IN | PC | $\underline{\text { C }}$ | (period) | IN | $\underline{\text { PC }}$ | $\underline{C}$ |
| 1. | $\mathrm{A}^{\text {b }}$ | ( $\mathrm{A}^{\mathrm{b}}, \mathrm{D}$ ) | $\mathrm{E}^{\text {b }}$ | 2. | $\mathrm{C}^{\text {b }}$ | $\left(C^{b}, E^{b}, D^{\text {b }}, \mathrm{D}\right)$ | $A^{\text {b }}$ |
| 3. | $A^{\text {b }}$ | $\left(E^{b}, \mathrm{D}\right)$ | $\mathrm{C}^{\text {b }}$ | 4. | $\mathrm{C}^{\mathrm{b}} / \mathrm{A}^{\mathrm{b}}$ | $\left(\mathrm{C}^{\mathrm{b}}, \mathrm{E}^{\mathrm{b}}, \mathrm{D}^{\mathrm{b}}, \mathrm{D}\right)$ | $A^{b}$ |
| 5. | G | (B, A, $\mathrm{A}^{\#}$ ) | E | 6. | $\mathrm{G} / \mathrm{A}^{\mathrm{b}}$ | $\left(\mathrm{G}, \mathrm{B}^{\mathrm{b}}\right.$ ) | $\mathrm{A}^{\text {b }}$ |

## 5. Other motifs

## Style oiseau

To Messiaen, birdsong was of profound significance, and played a part in much of his music..$^{51}$ Some works, such as the seven-volume Catalogue d'Oiseaux of 1956-58, make central use of birdsong and musical evocation of the natural environment of its subjects, while other pieces make little or no use of such material. Furthermore, the composer employed both literal transcription of actual birdsong and a more general "style oiseau" originating in his imagination rather than in nature. ${ }^{52}$

The use of birdsong in the Vingt Regards is generally of incidental rather than fundamental importance. In No. 8, Regard des hauteurs, the only piece of the cycle entirely devoted to birdsong, some specific birds are identified, but in all other cases, the use of birdsong is minimal. When it is used, a word or two

[^26]suffices to indicate the style: "oiseau" $\{77-4-1\},\{173-3-3\}$; "comme un oiseau" $\{103-2-3\}$; "comme un chant d'oiseau" \{19-4-1\}, and so on. In some cases the style is recognizable (similar to identified passages) but unmarked. Four examples of Messiaen's "style oiseau" are shown in example 33.

Ex. 33 Messiaen's "style oiseau".
(a.) Pure "style oiseau" in Regard des hauteurs (No. 8), p. 51.

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## Ex. 33 Messiaen's "style oiseau," continued.

(b.) "Comme un chant d'oiseau" in Regard du Fils dur le Fils (No. 5), \{19-4-1\}.

(c.) "Oiseau" in Première communion de la Vierge (No. 11), \{77-4-1\}.

(d.) "Oiseau" in Regard de la Vierge (No. 4), \{14-2-3\}.

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## Boris motif

This motif was discussed by Messiaen in chapter 8 of Technique:

Keeping our choice of intervals thoroughly in mind, let us look now at some beloved melodic contours and endeavor to draw the essence of them. In the shadow of the five notes which open Moussorgsky's Boris Godounov... [ex. 75] let us try our first formula of melodic cadence... [ex. 76]. Let us apply to it the added value - at the crosses - ... and the harmonies of the second mode of limited transposition... [ex. 77]. ${ }^{53}$

## Ex. 34 Origin and development of the Boris motif.

Technique, vol. 2, exx. \#75-77.


The Boris motif is incorporated into the Vingt Regards in two forms: as an acknowledged quotation from La Vierge et l'Enfant (see Première communion de la Vierge (No. 11), \{78-4-3\}), and as unattributed melodic strands (see Noël (No. 13), \{93-5-1\}, and Je dors, mais mon cœur veille (No. 19), \{152-3-3\}). ${ }^{54}$ Example 35, in which the Boris motif appears in the bottom two staves in mode $2^{2}$, illustrates the latter form.

[^27]Ex. 35 Unattributed use of the Boris motif in the Vingt Regards.
From Noël (No. 13), \{93-5-1\}.

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## Noël motif

The "Noël motif" occurs in two forms, one simpler and more symmetrical, the other more elaborate. The first form, introduced fleetingly in Regard de l'étoile (No. 2) and exploited intensively in Regard du temps (No. 9), is a threechord progression played $p p p$ in the first instance $\{7-6-3\}$ and $p p$ in the second (the top two voices of the rhythmic canon sections of No. 9, pp. 55-57). It is illustrated in example 36a. The second form inverts the voicing of the left hand chords, changes the internal intervals of the right hand chords, alters the symmetry of the sequential pattern on the third chord, and is followed by a fourth chord (associated with, but not part of, the motif-shown with an asterisk). This form is heard incidentally in Regard de la Vierge (see ex. 36b) and again in Noël (ex. 36c), both times played ff. The following analysis treats the first, simpler form as the essential one, and sees the second form as an elaboration of it.

The motif plays a particularly important part in the structure of Noël (No. 9), whence its name. (See Analyses Nos. 2 and 4 for more detailed dis-
cussion of the motif's use in Regard du temps and Noël respectively.) The essence of the "Noël motif" is a three-note melodic motif descending in whole steps, but the complete motif is a three-chord complex that can be understood in different ways.

Perhaps the simplest is to consider it a series of chords moving in contrary motion and made up of perfect fourths, fifths, and tritones; i.e. incomplete chords in fourths. Alternately, it could be viewed as the simultaneous, con-trary-motion deployment of the two whole-tone sets (Modes 1 and $1^{2}$ ). From yet another perspective, the complex is viewed as a series of three six-note chords of identical intervallic structure, each one a transposition of the others. The six-note chords are broken into two three-note elements, one of which is played in retrograde order. Example 36d isolates the whole-tone components of the motif, while 36 e sketches the transpositional-retrograde nature of its structure.

## Ex. 36 The "Noël motif".

(a.) Basic form, from Regard de l'étoile (No. 2), \{7-6-3\}.

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Ex. 36 The "Noel motif," continued.
(b.) Elaborated form, from Regard de la Vierge (No. 4), \{17-5-2\}.

(c.) Elaborated form, from Noël (No. 13), \{90-3-1\}.

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(d.) Whole-tone analysis of basic form. ${ }^{55}$


55 The top two voices comprise the complete mode 11, while the lower two voices generate mode $1^{2}$. The two middle voices derive alternately from either set, creating an alternating vertical series of mode 1 transpositions: 1-2-1-2.

Ex. 36 The "Noel motif." continued.
(e.) Transposition-retrograde analysis of basic form.


The boxed chords in the lower staff are the retrograde of the original left-hand chords. When combined (in the retrograde order shown) with the original right-hand chords, a six-note ( 5 pc ) chord is generated: Forte set 5-7 (01267). This chord is transposed down by whole steps ( $\mathrm{T}_{10}$ ).

## CHAPTER 3

## TONALITY IN THE VINGT REGARDS

\author{

1. Introduction
}

When the concepts of "tonality," "atonality," and "modality" outlined in the introduction are explored, it becomes apparent that each of these styles arises through specific usages of the modes of limited transposition. In effect, harmonic analysis must take into account two basic factors: which modes are being employed, and in what combinations. The following correlations appear:

1. mode 2 typically generates tonal-sounding harmonies;
2. modes 1 and 3 generate whole-tone and polytonal harmonies (the latter implying two or more tonal centers heard simultaneously);
3. modes 4 through 7 (and any polymodal combinations) generate densely chromatic "atonal" sonorities.

This approach is implied by Messiaen himself when he suggests that although a wide range of musical styles can be found in his scores, the music remains essentially modal (i.e. built on his modes of limited transposition), pitch-class choices being primarily influenced by his sense of color. ${ }^{56}$ In this way, the composer dismisses as relatively unimportant to his music not only traditional tonality, but also twelve-tone atonality.

[^28]... [whereas] some have spoken, with just cause, of the harmonic use of these modes... I do not use my modes melodically. I would go as far as to say that I use them as colours.... There are tonal passages in my works but they are precisely blended with these modes which colour them and finally they have little importance. Some of my later works also include note-rows, but... I treat them as colours.... I've happened to use the twelve notes in bundles and they sound quite unlike a series or a truncated series: they sound like colours. ${ }^{57}$

Discussion of tonality in the Vingt Regards will be divided into five sections. The first, a detailed examination of the structure of the modes themselves, is followed by three sections examining styles of tonality and how they relate to Messiaen's modes. The fifth provides a summary of the patterns of tonal organization in the cycle as a whole around specific pitch-classes.

## 2. The Modes of Limited Transposition

Before examining each of the seven modes individually, some general remarks and comparisons may be useful. For reasons that will become clear, the modes have been placed into three groups. Mode 2 stands on its own, while two family groups of 1-3-6 and 4-5-7 emerge. The classification of mode 6 involves a balancing of theoretical and practical matters, as it shows a certain structural kinship to modes 1 and 3 , but tends to be used by the composer in ways that more closely ally it to modes 4,5 and 7.58

Example 37 illustrates the relationships between these two families of modes. In the example, stemmed white notes are common to all three modes of each group, stemmed black notes common to two, and unstemmed black notes

[^29]particular to a single mode. Further similarities between modes 2, 3, and 6 (mode 3 in two transpositions) are shown in example 38

Ex. 37 Pitch-class relationships between family groups of modes.
mode 1
mode 3
mode 6

mode 5
mode 4
mode 7

mode 2


Ex. 38 Pitch-class relationships between modes 2, 3 and 6 .
mode 2
mode 3
mode 6
mode $3^{3}$


Mode 1 ( 6 pcs ) is simply the whole-tone scale, and is not used "unless it is concealed in a superposition of modes which renders it unrecognizable." ${ }^{59}$ While no analysis of mode 1 is offered (for obvious reasons) it will be noted that mode 1 forms a subset of both modes 3 and 6. Nevertheless, mode 1 probably warrants independent status on the basis of sheer familiarity.

Mode 2 ( 8 pcs ), otherwise known as the octatonic scale, is built of alternating minor and major seconds, and is fundamentally related to minor third structures such as the diminished-seventh chord; in terms of set theory, the diminished-seventh chord and the mode 2 collection are complements (ex. 39). As mode 2 is capable of producing eight different minor and major triads and various seventh chords, it is the preferred mode for tonal-sounding passages.

Ex. 39 Mode 2.
(a.) As linear succession of cells, Technique, vol. 2, ex. \#316.

(b.) As two superposed diminished-seventh chords.


[^30]The brackets in example 39a show the overlapping cells that divide the octave symmetrically. Mode 2 can also be understood as two superposed diminishedseventh chords, one on $C$, the other on $C \#$, lacking a third diminished-seventh chord (on D) for an aggregate (ex. 39b).

The component cells span a minor third, and thus divide the octave into four equal parts. As the intervallic structure of each cell is identical, one may choose any one of the cells as the starting point for the scale; regardless of where one starts, the notes, as an unordered set, will always be the same. In order to generate a different set (i.e. a different transposition of the mode), one would have to begin the scale somewhere between (but not including) the first and last notes of a cell. ${ }^{60}$ Starting on C results in one "transposition," while beginning on C\# generates a second, and D a third transposition. Starting on Eb (or F\# or A) will simply duplicate the original "transposition." Mode 2 is thus transposable three times. ${ }^{61}$

Keeping in mind that the intervallic structure of each cell is identical, and that the cells overlap every minor third, it will be understood that any harmonic (or melodic) structure built on the mode will itself be transposable by minor thirds. There will be four different transpositional levels possible, therefore, for any given structure, with the exception of the one built exclusively of all the "nodes" or notes common to adjacent cells. ${ }^{62}$

[^31]Let us examine the possibilities for generating tonal harmonies-triads, seventh chords and ninth chords-from mode $2^{1}$. In the first cell (i.e. on C or $\mathrm{D}^{\mathrm{b}}$ ) one major, one minor, and two diminished triads can be built in root position. Similarly, four seventh chords are possible: the dominant, the minor, the half-diminished, and the diminished. As all of these are transposable to cells 2 , 3 and 4, we have, in total, four of every category of chord but the diminished triad-of which there are eight-and the diminished-seventh chord-of which there are only two-in one transpositional level of mode 2 alone. Ninth chords (for example, the dominant minor ninth) and chords with various added tones are likewise possible, in four transpositions. Messiaen's observation that "[the modes] are at once in the atmosphere of several tonalities" is certainly no overstatement.

Two examples of typical mode 2 formulas are reproduced in example 40. The first is a "parallel succession of chords (each voice realizes the entire mode, starting on a different degree)... the succession alternat[ing] the six-four chord with the added augmented fourth and the dominant seventh chord with the added sixth." The second is "the typical cadence of the mode," the Boris motif quoted from La Vierge et l'Enfant (see ex. 34, p. 64 above). ${ }^{63}$

${ }^{63}$ Messiaen, Technique, 59-60. Messiaen's designation of chords, cadences or formulas as "typical" generally means that they are used frequently in association with the given mode.

## Ex. 40 Two typical mode 2 formulas, continued.

(b.) Typical cadence (Boris motif), Technique, vol. 2, ex. \#321.


Finally, a word on the relationship between mode 2, the thème de Dieu, and many of the tonal-sounding passages in the Vingt Regards. The thème de Dieu contains notes exclusively from mode $2^{1}$. It also implies, through repetition and temporal prolongation, a tonic of F\# major. Given the proclivity of mode 2 harmonies to create familiar tonal structures, this union with a tonicgenerating theme becomes a powerful tonicizing agent throughout the course of the piece. They are almost always found in association in some form or another whenever there is a strong tonal feeling to the music.

Mode 3 ( 9 pcs ) consists of cells spanning a major third (tone, semi-tone, semi-tone), and as it contains the whole-tone scale (mode 1) as a subset, it has affinities with whole-tone structures (ex. 41). Passages written in the third mode often have a bitonal or polytonal sound.

Ex. $41 \quad$ Mode 3.
From Technique, vol. 2, ex. \#329.


As its cells span a major third, mode 3 shows special affinities for that interval. Its derivitive harmonies abound in major and augmented triads, and a characteristic voicing of parallel triads produces a succession of two major triads and a chord composed of a tritone and a major third (see example 43). Furthermore, the top three notes of each chord in the characteristic succession of parallel harmonies form an augmented triad (the bottom four, sharing notes in common with the augmented triads, forming a succession of seventh chords: dominant, half-diminished, and minor-see ex. 42a). Finally, the complement of mode 3 is an augmented triad; any particular transposition of mode 3 must exclude three pitch-classes, and these "missing" pitch-classes always form an augmented triad. Messiaen also gives an example of a "typical chord" of mode $3^{1}$, and in it we can plainly see the bitonal aspect of the harmony: an apparent superimposition of an $\mathrm{A}^{\mathrm{b}}$ dominant chord and a C major triad (ex. 42b).

Ex. 42 Two typical mode 3 structures.
(a.) Parallel succession of chords, Technique, vol. 2, ex. \#333.

(b.) Typical chord, Technique, vol. 2, ex. \#335.


This bitonal conflict of roots a major third apart-in fact beginning with the very chord shown above-is exploited by the composer in the central portion of Noël. Interestingly, a C major triad is also the point of convergence for a series of mode $3^{2}$ triads moving in contrary motion as found in Noël (No. 13), but first illustrated in Technique (ex. 43).

Ex. 43 Contrary-motion successions of mode 3 chords. Three-chord succession, Technique, vol. 2, ex. \#334 (above), and in an extended succession in Noël (No. 13), \{93-5-3\} (below).

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Major triads and dominant chords are, of course, also characteristic features of mode 2 , and this fact creates a certain "common denominator" effect of correspondence between the two modes. In the passage cited in example 43 (bottom), Messiaen superposes the two modes $3^{4}$ and $2^{2}$, later juxtaposing these contrasting modes repeatedly in quick succession. As evidence of a further link between these two modes, it will be observed that certain melodic
segments of mode 3 have the exact intervallic configuration of mode 2 (semi-tone-tone-semitone), and that all transpositions of mode 2 have many pitchclasses in common with modes 3 and $6 .{ }^{64}$

## Modes 4-7

Modes 4 and 5 are simply truncated versions of mode 7 , but their characteristic and distinctive use-in addition to their designation by the composer as separate modes-argues in favor of individual treatment. Because of its chromatic density ( 10 pcs ), mode 7 can of course create a great number of tonal and quasi-tonal sonorities, but its use is typically restricted to highly chromatic contexts which render this tonal potential ineffective, and the same is generally true of mode 6. Modes 4-7 are described individually below.

Ex. 44 Mode 4 and its characteristic succession of parallel chords.
(a.) Mode 4, Technique, vol. 2, ex. \#345.

(b.) Parallel succession of chords, Technique, vol. 2, ex. \#346.

${ }^{64}$ See ex. 38, p. 71.

Mode 4 ( 8 pcs ) can be recognized by the central gap of two adjacent pitchclasses in each tritone. It is reproduced above (ex. 44), along with a characteristic parallel succession of mode 4 chords. The series shows certain familiar tonal features. Individually, six of the eight chords can be seen as dominant thirteenths, and the remaining two as dominant sevenths, all voiced with the seventh in the bass. In practice, however, they have neither the sound nor the function of these dominant harmonies, and create instead complex atonal sonorities.

Mode 5 ( 6 pcs ) can be recognized by the central gap of three adjacent pitch-classes in each tritone. It shares with mode 1 the distinction of having the least number of pitch-classes, and that is perhaps one of the reasons why neither mode is extensively used. Mode 5 has a particular association with two structures: a "characteristic melodic formula" and the chord in fourths. As the composer points out, "both the chord in fourths and the melodic formula contain all the notes of mode 5." (See example 45.) ${ }^{65}$

Ex. 45 Mode 5 and associated characteristic structures.
(a.) Mode 5, Technique, vol. 2, ex. \#347.

(b.) Characteristic melodic formula, Technique, vol. 2, ex. \#348.


[^32]
## Ex. 45 Mode 5 and associated characteristic structures,continued.

(c.) Chord in fourths, Technique, vol. 2, ex. \#349.


The melodic formula incorporates a procedure described by Messiaen (but attributed to Marcel Dupré) as "interversion of notes," whereby a given group of notes is subject to various permutations and reorderings. ${ }^{66}$ Understandably this theme is used sparingly, and is found in only one Regard (and likewise only once in the Quatuor, on page 37, third system, in the piano part).

Mode 5 can be regrouped to show various aspects of its structure. One such regrouping highlights two superimposed perfect-fourth structures contained within it:

$$
\mathrm{G}-\mathrm{C}-\mathrm{F} / \mathrm{C} \#-\mathrm{F} \#-\mathrm{B}
$$

A second version draws attention to the alternation of chromatic clusters of three pitch-classes (underlined notes present, bracketed ones missing):

$$
\underline{\mathrm{B}-\mathrm{C}-\mathrm{C} \# \quad(\mathrm{D}-\mathrm{D} \#-\mathrm{E}) \quad \underline{\mathrm{F}}-\mathrm{F} \#-\mathrm{G} \quad(\mathrm{G} \#-\mathrm{A}-\mathrm{A} \#) ~}
$$

Mode 6 ( 8 pcs ), with its tone-tone-semitone-semitone cells, appears as the conjoined (first) hexachords of two major scales a tritone apart (or, alternately, as a complete major scale with a particular mutation causing its second hexachord to slip chromatically down a half-step). It thus has, at least potentially,

[^33]a characteristic quality of white/black (or diatonic/chromatic) juxtaposition.
Like mode 3, mode 6 also contains the whole-tone scale (mode 1) as a subset.
In fact, mode 3 could conceivably be viewed as a truncated mode 6 , or mode 6 as the whole-tone collection augmented by two notes (ex. 46).

## Ex. 46 Mode 6 and associated characteristic structures.

(a.) Mode 6, Technique, vol. 2, ex. \#350.

(b.) Mode 6 as a succession of tritones.

(c.) Characteristic succession of contrary-motion chords, Technique, vol. 2, ex. \#351.


Example 46a shows mode 6 in normal linear fashion, while 46 bhows a verticalization of the two component cells, resulting in a progression of tritones. ${ }^{67}$ Example 46c illustrates a characteristic succession of contrary-

67 This progression by tritones is, of course, possible with all of the modes except for mode 3 , as all but mode 3 have nodes on the tritone. It is mentioned here as a feature of mode 6 because of examples of its use in just this fashion. See, for instance, the bass voice in the rhythmic canons of No. 9, Regard du temps, where the ostinato figure in tritones is drawn from mode 65 .
motion chords, and also demonstrates the wide variety of tonal harmonies (major, minor and augmented triads) and quasi-tonal triads (of perfect fourths), that mode 6 permits. Nevertheless, these chords-however tonal they might seem in isolation-do not tend to form coherent or unifying harmonic structures, and their resemblance to familiar tonal harmonies is thus illusory or misleading.

Mode 7 (10 pcs) is recognized by the gap of a single pitch-class in each tritone, and thus lacks only two pitch-classes to make a complete chromatic scale. The highly chromatic thème de l'étoile et de la Croix is written in mode $7^{3}$. Of the mode's typical parallel succession of chords (Technique, vol. 2, ex. \#355) the same comments can be made as were made for the mode 4 and 6 series; although certain tonal implications might be found in any given chord, their actual use seldom admits anything more than fleeting reference to familiar harmonies.

Given that mode 7 lacks only two pitch-classes to make an aggregate, it follows that nearly any harmonic structure can be fashioned from it. However, traditional harmonic structures should not be taken as characteristic of the mode, even though they are certainly possible within it. Example 47a illustrates mode 7, and 47b its parallel succession of chords, but the "connection chords" of example 47 c , in mode $7^{5}$, are more truly representative of the seventh mode.

Ex. 47 Mode 7 and associated characteristic structures.
(a.) Mode 7, Technique, vol. 2, ex. \#354.

(b.) Parallel succession of chords, Technique, vol. 2, ex. \#355.

(c.) "Connection chords" in mode 7, Technique, vol. 2, ex. \#356.


## 3. Traditional Tonality: Mode 2

Eight of the Vingt Regards feature "tonal" music, either in whole or in part, and seven of these use the key of F\# major. ${ }^{68}$ In almost every instance, the tonality of F\# major-the central tonality of the cycle-is also supported by the use of its key signature, the exceptions being where the use is either fragmentary (brief tonal interjections within a larger atonal context, as in No. 6, Par Lui tout a été fait) or extended but texturally isolated (one strand in a polymodal, virtually atonal web, as in No. 5, Regard du Fils sur le Fils).
${ }^{68}$ This discussion makes frequent use of information summarized in Table 1, p. 199.

Curiously, No. 11, Première communion de la Vierge, bears no key signature even though it is almost entirely in the key of $\mathrm{B}^{\mathrm{b}}$ major (the second most important key of the cycle). Conversely, several short, merely episodic tonal passages in Regard de l'Esprit de joie (No. 10) do have key signatures.

This being said, it should be added that Messiaen himself appeared to hold differing views on his use of tonality. Compare, for example, the following two statements:

This example, written entirely in mode 2 , third transposition, remains in $B$ major, the holding of $B$ in the bass strongly setting up the tonality.... In the following paragraph, example $363 . .$. will prove to us that nothing is so valuable as the dominant seventh for the affirmation of a tonality. ${ }^{69}$

The fact that the two notes A\# and F\# belong to the key of F\# major does not stop them from being, in the criticized passage, part of a mode that is both personal and infinitely more complex; if the audience, poisoned by tonality, hears only an F\# major chord, it is not my fault. ${ }^{70}$

In the first instance, the composer unabashedly speaks of dominantseventh chords and tonality, whereas in the second he chastises those who can only hear familiar tonal structures. In any case, the use of key signatures in several places strongly suggests a tonal conception, at least from a pragmatic, if not a theoretic standpoint.

Our remarks here will be confined to those passages where strong feelings of traditional tonality are projected. In most cases this is accomplished by a combination of two means: the repeated use of "tonic" and closely related

[^34]triads, and the use of cadential dominant-seventh sonorities (than which nothing is more valuable, the composer reminds us, for the affirmation of a tonality). In several instances the feeling of traditional tonality is also implied by the use of a key signature in the score. The strongest feelings of tonality are created by mode 2 structures, and these, in turn, are often associated with the thème de Dieu or related themes.

Each instance of tonality generated by means of mode 2 harmonic structures will be examined individually. Those pieces providing examples are listed below, an asterisk indicating the use of the corresponding key signature. ${ }^{71}$
Regard du Père (No. 1) entirely in *F\#
Regard du Fils sur le Fils (No. 5) 1 of 3 voices in F\#
Par Lui tout a été fait (No. 6)
Regard de l'Esprit de joie (No. 10)
Première communion de la Vierge (No. 11)
Le baiser de l'Enfant-Jésus (No. 15)
Je dors, mais mon cœur veille (No. 19)
Regard de l'Église d'amour (No. 20)
passages in $* F \#, B^{b}$ and $D$
passages in $E^{b}, C, * A,{ }^{*} D^{b}, * F$,
${ }^{*} \mathrm{~A}^{\mathrm{b}}, * \mathrm{~B}, \mathrm{D}$, *B $^{\mathrm{b}},{ }^{* \mathrm{~F} \#}$
almost entirely in $B^{b}$
almost entirely in *F\#
entirely in *F\#
last quarter in *F\#
The opening piece of the cycle immediately and unequivocally establishes
the two most important unifying features, the thème de Dieu and its asso-
ciated tonality, $\mathrm{F} \#$ major. In fact, Messiaen allows nothing to obscure the
initial presentation of the principal theme; the form is extremely simple, the
${ }^{71}$ Messiaen used key signatures until the Turangalîla-Symphonie (1946-48), but no
key signatures are found in scores from 1949 on; the composer seems to have made the
decision at this point to discontinue their use altogether. Moreover, no clear pattern of key
signature use emerges in the works from 1929-1948.
texture and modality constant, and the length-measured in bars, not performance time-is the shortest of the entire set.

Tonality is established by the two basic means mentioned above (the repeated use of "tonic" and closely related triads, and the use of cadential domi-nant-seventh sonorities) and reinforced by two others. First, one hears simple F\# major triads repeatedly and in rhythmically strong places. Second, the chords heard next most frequently are essentially C\# dominant harmonies, and these dominant chords always resolve to the F\# chord, thereby employing the traditional dominant-tonic cadence to establish and confirm the tonality. The feeling of tonality is reinforced by sheer repetition of the F\# chord and its members as melodic notes, and by the use of the F\# major key signature. With regard to repetition, notice that of the initial eight-beat phrase, fully six beats are straightforward F\# major triads, and the remaining two beats sustain (and later return to) the initial chord-tone, A\#.

## No. 5 - Regard du Fils sur le Fils

Here the use of traditional tonality is restricted to one of three lines-in this case, the lowest-pitched and slowest, most regularly pulsed voice, stating the thème de Dieu in values twice as long as those in the first piece. The important difference here is polymodality; the simultaneous use of modes 6 and 4 saturates the chromatic field, thus compromising the tonal feeling generated by the thème de Dieu. The feeling of traditional tonality is also weakened by a freer use of mode 2 sonorities, particularly in the improvisatory cadential sections preceding the return to the tonic. ${ }^{72}$

[^35]
## No. 6 - Par Lui tout a été fait

The concluding section of this piece, bearing the key-signature of $\mathrm{F} \#$ major, is preceded by three brief interjections, each consisting of the first four chords of the thème de Dieu. These interjections-in the keys of F\#, $\mathrm{B}^{\mathrm{b}}$, and D , respectively ${ }^{73}$ - do not so much create true tonality as carry with them the flavor of tonality that is so integral to the theme. The final section from $\{42-5-$ 2) on is, despite the key signature, quite a dissonant mixture of thematic elements. As in the preceding example, the $F \#$ tonality is submerged in the chromatic onslaught of accompanying themes and motives, persisting as a passionate ostinato in the relentless sixteenth-note texure. The coda heightens this tension by minimizing the tonic statements (thème de Dieu in 32nd-note values, $\{44-4-2\}$ ) and by maximizing the dissonant chords (groups of 31, 29, and 23 sixteenth-notes) in a typical example of "groups of very short and very long values."

## No. 10 - Regard de l'Esprit de joie

A tone of ecstatic rapture is maintained continuously throughout this exuberant ode to joy marking the midpoint of the cycle. ${ }^{74}$ In it, Messiaen carefully controls the degree of tonality injected into the initially atonal and violently percussive music, and uses tonal areas structurally to a much greater extent than in any other of the Regards. After examining local uses of tonality, this overall structural plan will be explored.

The first tonal threads (in an atonal fabric) are the unharmonized inser-
dominant-tonic interpretation. On the other hand, a freer use of the entire mode can generate harmonies with little or no collective tonal sense.

73 The same key areas are used in No. 10; see p. 90 and footnote 112, p. 129.
${ }^{74}$ Paul Griffiths wryly observes (Griffiths, ibid., 119) that this is a "prime example" of "a piece whose rousing virtuosity suggests Messiaen's practicality in providing for an interval in complete performances."
tions of the thème de joie-an ascending major scale-stamped out three times, in three keys ( $E^{b}, C, A$ ) in the left hand. The third one (in $A$ ) is played partially three times, repeating the first four notes of the theme without completing it on the anticipated tonic harmony. The E dominant thus implied (and stated outright at $\{63-3-1 \ldots\}$ ) is maintained through a section of asymmetrical expansion until finally resolved to A major (with its key signature) and a new theme, the thème d'amour.

The unidentified thème d'amour ("comme un air de chasse, comme des cors") is homophonically presented in a lively cretic rhythm as a completely developed phrase. Its underlying harmonic scheme is traditional: ${ }^{75}$

$$
\begin{array}{lllllllllllllll}
\mathrm{T}_{3} & \mathrm{D}_{6} & \mathrm{~T}_{3} & \mathrm{~S}_{1} & \mathrm{~T}_{2} & \mathrm{DD}_{1} & \mathrm{D}_{1} & \mathrm{~T}_{2} & \mathrm{D}_{2} & \mathrm{~T}_{3}
\end{array}
$$

This process is repeated twice more in a rising series of tonalities, each with its own key signature ( $\mathrm{A}, \mathrm{D}^{\mathrm{b}}, \mathrm{F}$ ), building to a huge climax that opens (at (69-1-1\}) "dans un grand transport de joie" onto the thème de joie, fully harmonized with the motif elaborated into a four-bar phrase. This point marks the first in a series of four climaxes on this theme, in the keys of $\mathrm{A}^{\mathrm{b}}, \mathrm{B},\left(^{*}\right), \mathrm{B}^{\mathrm{b}},\left({ }^{* *}\right)$, and ultimately F\# (the first three played fff, and the last one ffff), but interrupted twice, the first time $\left({ }^{*}\right)$ by a twofold repetition of the thème de Dieu (in the keys of $B$ and $D$ ), and the second time $\left({ }^{* *}\right)$ by a varied reprise of the opening dance which cuts off what appears to be the beginning of the thème de joie in F\#. One of the variations in this reprise is the transformation of the opening dissonant percussive accents into consonant percussive chords of $\mathrm{F} \#$ major with an added sixth, as illustrated in example 48.

[^36]Ex. 48 Transformation of percussive accents, atonal to tonal, in the "theme de danse orientale et plain-chantesque" of No. 10, Regard de l'Esprit de joie.
(a.) Atonal, in opening, \{58-1-1\}.

(b.) Tonal, at the reprise, $\{72-3-1\}$.

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This series of tonal areas is arranged in a carefully structured sequence of rising and falling major and minor thirds (i.e. diminished-seventh chords and augmented triads), both being structures that divide the octave symmetrically in the manner of the modes of limited transposition (see ex. 49). ${ }^{76}$ The series includes all but two pitch-classes ( E and G , the former used extensively as a pivotal "dominant" pitch-class between the two A major areas), and begins and ends with F\#, the central pitch-class of the Vingt Regards. Finally, the last
${ }^{76}$ This harmonic structure is illustrated in R. S. Johnson, ibid., 74, and commented on in Griffiths, ibid., 119f.
three key areas review, in retrograde order, the three most important keys of the cycle: $\mathrm{D}, \mathrm{B}^{\mathrm{b}}$, and F .

## Ex. 49 Tonal centers in No. 10, Regard de l'Esprit de joie.



## No. 11 - Première communion de la Vierge

After the breathtaking virtuosity of No. 10, this piece provides an island of tranquility, rehearsing the thème de Dieu in the cooler colors of $\mathrm{B}^{\mathrm{b}}$ major / mode $2^{2.77}$ This theme provides the material for many of the piece's eighty bars, with three exceptions: first some birdsong material in the opening section; second, a brief, three-bar recollection of the Boris motif (marked "Rappel de la Vierge et l'Enfant"); and third, at \{81-2-1\}, a dissonant, clangorous ff rhythmic process passage, gradually cooling down as it augments (or slows down) over a dominant pedal to prepare the return to the opening material.

The opening section is entirely mode 2 on $B^{b}$ (with some exceptions for melodic fioratura), the left hand repeating the first four chords of the theme de Dieu like a mantra, and the right hand playing increasingly involved melodic elaborations above it. The fifth chord of the theme (with the melody note D ) finally arrives to close the first section at $\{78-4-2\}$. The Boris motif is appended as a pensive coda, entirely on the "dominant"-mode 2 on F (mode $2^{3}$ ). ${ }^{78}$

[^37]This structural dominant leads us back to the $\mathrm{B}^{\mathrm{b}}$ tonic for a series of three short variations involving the thème de Dieu in the left hand (using the cretic rhythm in $5 / 16$ ), and an intensely passionate magnificat in the right hand. ${ }^{79}$ These right-hand variations highlight a D with an E embellishment, incorporating brilliant, steely cadenzas that separate the variations before running headlong into the central, dissonant part of the piece. ${ }^{80}$

The dissonance in the next passage (whose details do not concern us here) subsides gradually over a long dominant complex involving three elementsevolving harmonies arpeggiated above a repeated dominant pedal, a single dominant harmony played ppp, and a reprise of the opening bird-like melodic material superimposed on a slowly rising left-hand dominant arpeggio-before a final recapitulation of the opening music.

It is interesting to trace the composer's structural use of the final note of the theme, D (scale degree 3). Note that it is withheld for some fifteen bars in the first section, and that when it finally comes it is picked up directly as the first note of a new theme in a new key-a pivotal function, the D being common to both transpositions of the mode. Then the D (and E ) are featured in the right-hand variations, and are continued through the dissonant section as the upper melody for thirteen of the eighteen bars. Thereafter it is left in suspension until the right hand slowly and lovingly provides it, once... twice... thrice.

Of that mode, two pitch-classes are not used ( E and Bb ). Remove them, and mode $2^{3}$ remains.

79 I interpret the word "Magnificat" to mean "in the style of a Magnificat," just as the word "oiseau" means "comme un chant d'oiseau." There is a similarity to existing plainchant, however. The resemblance of the right-hand melody to Messiaen's ex. \#109 (in Technique, vol. 2, transformed from the plainchant ex. \#108) could be noted in this regard. Note particularly the reciting tone, $D$, embroidered again and again with the upper neighbor, E , as well as the rapid ascending scale that precedes it-seven notes in the example, four in our piece. Seifert ("Messiaen's Vingt Regards," 258) finds a specific resemblance here to the Magnificat 4EAA on page 210 of the Liber usualis, but I am unconvinced.

80 The same compositional pattern of mode $2 /$ major tonality enclosing a dissonant centre is also used in No. 15, Le baiser de l'Enfant-Jésus.

## No. 15 - Le baiser de l'Enfant-Jésus

One of the more important pieces, No. 15 presents the thème de Dieu "en berceuse"-as a lullaby. In the first section, the thème de Dieu motif is expanded to include several periods, most repeated, in an extended tonal phrase whose underlying harmonic structure is traditional, relying almost exclusively on tonic, dominant, and subdominant harmonies. 81 Structured in four subtitled sections (ex. 50), the music is essentially variational, and only departs from the F\# major tonality briefly in the central dissonant portion of the piece (where it nonetheless remains based on the "dominant," $\mathrm{C} \#$ ).

## Ex. $50 \quad$ Formal outline of No. 15, Le baiser de l'Enfant-Jésus.

(a.) Overview.

| Section | Caption | $\underline{\text { Key }}$ Location | Theme |
| :---: | :--- | :--- | :--- | :--- |
| I "Le sommeil" | F\# | $\{108-1-1\}$ | thème de Dieu en berceuse |
| II "Le jardin" | F\# | $\{113-2-1\}$ | thème de Dieu |
| III "Le baiser" | F\# | $\{117-3-1\}$ | thème du baiser |
| IV "L'ombre du baiser" | F\# | $\{119-4-1\}$ | thème de Dieu en berceuse ${ }^{82}$ |

[^38](b.) Detail.

## Section I, "Le sommeil," beginning \{108-1-1\}

A $\quad 1-5^{83} \quad \mathrm{I}, \mathrm{V}^{7}, \mathrm{I}, \mathrm{V}^{7}$ (extended, cadenza-like), I.
A $\quad 6-10 \quad \mathrm{I}, \mathrm{V}^{7}, \mathrm{I}, \mathrm{V}^{7}$ (extended, cadenza-like), I.
B $\quad 11-15 \quad \mathrm{I}, \mathrm{IV}, \mathrm{I}, \mathrm{IV}$ (extended), $\mathrm{V}^{7}$, I.
B $\quad 16-20 \quad$ I, IV, I, IV (extended), V7, I.
A 21-25 [as before]
C 26-32 I, V7, I, V ${ }^{7}$, I.
C 33-39 I, V7, I, V7, I. [more elaborate 2nd time]
A 40-46 [as before, adding 32nds and trills in ornate right hand]
A 47-62* [as above, with *cadenza on $\mathrm{V}^{7}, 53-60$ ]

Section II, "Le jardin," beginning \{113-2-1\}
A 63-72 Thème de Dieu motif with commentary, in two-bar phrases (first alternating hands, then together, then in canon).
B 73-78 Triple series a, b, c, unfolding simultaneously (see ex. 51): ${ }^{84}$
$\mathrm{a}=$ mode 2 chords grouped in threes, ascending above a $\mathrm{C} \#$ pedal
$\mathrm{b}=$ various 4 -chord interjections (thème d'accords, accords de carillon, chords of resonance, chords on the dominant)
$\mathrm{c}=$ descending chromatic line (dyads), each element lengthened in last two bars.

C 79-94 Chromatic movement rising in waves (melodic inversion of previous element c, in two-bar periods) above C\# pedal, unfolding in three phrases of 6,5 , and 5 bars, respectively.

[^39]
## Ex. 50 Formal outline of No. 15, Le baiser de l'Enfant-Jésus, continued.

Section III, "Le baiser," beginning \{117-3-1\}
A $\quad 95-102 \quad \mathrm{I}, \mathrm{IV}, \mathrm{I}, \mathrm{V}^{7}, \mathrm{I},\left(\mathrm{V}^{7}, \mathrm{I}\right), \mathrm{V}^{7}$ (cadence trill: C\#).
B 103-112 bIII, V7, I, IV, I, (V7, I), (V $\left.{ }^{7}, \mathrm{I}\right), \mathrm{V}^{7}, \mathrm{I}$ (trill: F\#).
C 113-118 IV, I, IV, I, X*, I, V7, I. *[Mode $6^{5}$ triads converging symmetrically around C\#, which is not a member of the mode.]

Section IV, "L'ombre du baiser," beginning \{119-4-1\}
A 119-126 Two-bar ostinato in left hand (thème de Dieu en berceuse in continuous, even 8th-notes) with constantly varied mode 2 embroidery in right hand.
B 127-134 New two-note ostinato in left hand (C\#, A\#), while right hand plays one-bar ostinato consisting of four pitch-classes: F\#, A\#, C\#, D\#; i.e. the tonic chord with an added sixth.

+ (135-136 Final cadence: $\left.\mathrm{V}^{7}, \mathrm{I}\right)$

Ex. 51 Three elements in the central portion of "Le jardin". From Le baiser de l'Enfant-Jésus (No. 15), \{114-4-1 $\}.$

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Le baiser de l'Enfant-Jésus provides an excellent case study for observing the use of mode 2 in generating tonal structures. In every instance above where the tonic collection (I) is indicated, the mode's "tonic" is $\mathrm{F} \#$-mode $2^{1}$. Where the dominant is indicated ( $\mathrm{V}^{7}$ ), the mode's tonic is C ——mode $2^{2}$, and when the subdominant is indicated (IV), ${ }^{85}$ the tonic is B (or G\#)-mode $2^{3}$. In this way, the three possible transpositions of mode 2 are blended structurally with the three fundamental harmonic structures of traditional tonality, each transposition having a unique affinity with one of the functions.

There are only two departures from mode 2 in the piece, and both are associated in some way with the "dominant" pitch-class, C\#. The first, longest and most complex begins at \{114-4-1\} and continues for twenty-two bars, generating a tremendous crescendo of tonal and structural dissonance-all the more powerful in this otherwise strictly tonal context-that finally resolves to the climactic "baiser" section and a return to F\# major tonality. There is no single organizing principle at work here; rather it is an amalgam of cyclical motifs, chords, formulas, and chromaticism, inserted into or built above a virtually constant C\# pedal.

The second departure is as brief as the first is long, and involves the insertion of a single bar of mode $6^{5}$ triads (eight chords) as an expansive cadential gesture-essentially a V/V function-prior to the actual conclusion of the piece's third section. The outer melodic voices of these chords are symmetrically arrayed around $\mathrm{C} \#$ (which pitch-class does not figure in the mode) in two ways. First, the contrary-motion melodic lines of each hand both skip over C\#

[^40]with their seventh and eighth notes: $D-C$ in the right hand, $C-D$ in the left, and then "resolve" to the tonic harmony, in second inversion (C\# in the bass, C\# implied but not voiced in the right hand, where it is replaced by the added sixth, D\#). This voice leading is illustrated in example 52a, and the passage's V/V function sketched in 52b. (See also pp. 121-24.)

## Ex. 52 Integration of mode 65 passage into mode 2 context.

(a.) Voice-leading in \{119-2-2\} centered on C\#.

(b.) Tonal function ( $\mathrm{V} / \mathrm{V}$ ) of same passage.


It is perhaps significant that the pitch-class roots of mode $6^{5}, \mathrm{E} / \mathrm{B}^{\mathrm{b}}$, are symmetrically disposed around C\#. It will also be seen that both modes $2^{1}$ and $2^{3}$ ("tonic" and "subdominant" respectively) share six of their eight pitchclasses with $6^{5}$, while mode $2^{2}$ (the "dominant") shares only four pitch-classes
with the latter (ex. 53). While not reinforcing the "dominant of the dominant" interpretation described above, this does suggest that the mode $6^{5}$ passage has more in common with the tonic/subdominant harmonies that precede it than with the dominant harmonies of measure 117. In this context, then, mode $6^{5}$ serves as something of a tonic (i.e. mode 2) substitute, extending the tonal resources of mode 2 without infringing on those of the dominant function mode.

Ex. 53 Pitch-classes held in common: modes $2^{1}, 2^{2}, 2^{3}$, and $6^{5}$.


Finally, one cannot miss the countless traditional V7-I cadences that occur throughout the piece. They are inherent in the harmonic structure of the thème de Dieu en berceuse, and are used structurally to finish three of the piece's four sections. The latter may strike the ear as curiously out of place, coming as they do in a highly inflected, chromatic context, but this discrepancy is perceived (if at all) on historical and stylistic, not theoretical grounds. The cadences in question are traditional structures and mode 2 structures at the
same time. ${ }^{86}$ As the composer clearly suggests (second citation, p. 84) the two interpretations are not mutually exclusive, and no compromise is necessary to accommodate their coexistence.

## No. 19 - Je dors, mais mon cœur veille

Certain harmonic details of the penultimate piece recall an association of two modes in a tonal context just seen in No. 15: modes $2^{1}$ and $6^{5}$. The present piece, like No. 15 , is well within the F\# major tonality, but the tonality is established here in a slightly different fashion.

In fact, two means of establishing tonality are employed here. First, rather than surrounding the tonic with its closest diatonic siblings (as was systematically done in No. 15), the opening bars of No. 19 simply prolong the tonic F\# harmony for so long that all sense of harmonic movement is suspended. Even when the harmonic rhythm speeds up, as at \{152-3-1\}, the notes remain exclusively mode $2^{1}$.

The second means is more subtle, and involves a shift to the "relative minor," D\# minor, for eighteen bars of the middle section of the piece (from $\{153-4-1\}$, "Un peu plus vif" to \{154-4-2\}). ${ }^{87}$ Not only is it subtler to imply the major key through use of the relative minor than to confirm it outright by using the dominant, but the relative minor key is itself, in this case, partially obscured by extraneous harmonies and the use of different modes. The theme d'amour (motif), for example, is in $\mathrm{E}^{\mathrm{b}}$ minor on its first appearance at \{153-4-

[^41]1 , but the accompanying left-hand chords are not. ${ }^{88}$
The bar of unexpected $\mathrm{E}^{\mathrm{b}}$ minor tonality marked "berceur" [rocking] at \{153-5-2 $\}$ is followed by its minor dominant, A\# minor. The first bar is pure mode $6^{5}$, the second, mode $2^{2}$. Just as in the last analysis the different harmonic regions of tonic, dominant and subdominant each had their own unique modal assignations, so do they here: $\mathrm{F} \#$ major, mode $2^{1} ; \mathrm{E}^{\mathrm{b}}$ minor, mode $6^{5}$; dominant of the relative minor, mode $2^{2}$. Recalling example 53 (p.97), we observe that the "tonic" and its "relative minor" (modes $2^{1}$ and $6^{5}$ ) have six of their eight pitch-classes in common, while the relative minor and its dominant ( $6^{5}$ and $2^{2}$ ) share only four pitch-classes. Again, the digression from mode 2 to mode 6 is not the radical shift that we might expect it to be; it is accomplished as smoothly and as easily as a tonal shift from major to relative minor.

Although the $\mathrm{E}^{\mathrm{b}}$ minor chord in $\{153-5-2\}$ was just described as "unexpected," in retrospect it is clear that the immediately preceding chord was none other than its dominant, which harmony is repeated in an absolutely unambiguous fashion on the downbeat of \{154-1-1\}. Messiaen spells out his tonal intentions now with increasing clarity as he begins to surround the secondary tonality of $\mathrm{E}^{\mathrm{b}}$ minor with its siblings, natural and chromatically altered: $\mathrm{V}^{7}, \mathrm{v}$, and finally IV7 (in second inversion at \{154-3-3\}) shortly before the return to the primary key, by sequence, at \{154-5-2\}.

At this point in the piece, the two contrasting ideas-(1) the tonic key of F\# major, and (2) the thème d'amour associated with the contrasting secondary tonality-are brought together by setting the secondary theme in the primary key. The texture is now inverted (theme below, chordal accompaniment above), and the harmonies simplified and tonicized. ${ }^{89}$

[^42]In fact, Je dors, mais mon cœur veille owes a double allegiance to just these two elements, and upon closer examination, it will be seen that the thème d'amour is used as the mold upon which all other thematic material in the piece is shaped. Even a seemingly unimportant three-chord motif (first seen at \{154-1-1\} but undergoing several transformations as in \{154-3-3\} and \{155-3-2\}) is made to take on the melodic shape of this theme at $\{156-4-1\}$. These thematic similarities are outlined in example 54.

Ex. 54 Thematic similarities in No. 19, Je dors, mais mon cœur veille.


* A separate octave element in bass (tonic and dominant).
** Indicates insertion of an extra note (the sixth), creating a two-note descending figure (bracketed) that foreshadows the terminal two-note figure.
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89 Compare the first bar of the contrasting section, \{153-4-1\}, with the first bar of the return to the tonic key, $\{154-4-1\}$.

From this point on, the tonality of $\mathrm{F} \#$ is maintained in the customary ways. The thème d'amour (both four- and eight-note forms) is accompanied by relatively simple tonal harmonies, and the tonic of $\mathrm{F} \#$ is elaborated by other closely-related diatonic chords (for example, V/IV - IV - iv, at \{155-1-3...\}). ${ }^{90}$

## No. 20 - Regard de l'Église d'amour

In the concluding piece of the two-hour cycle we find a number of perhaps predictable elements, foremost among which is the final confirmation-not to say apotheosis-of the thème de Dieu / mode $2^{1} / \mathrm{F} \#$ major tonality, and the recapitulation of some of the themes and procedures from the previous nineteen pieces.

As in its homologue, No. 10 (which closes the first half of the set; see note 74, p. 87), this piece begins atonally, and gradually adds tonal threads in many brief and contrasting key areas until the final confirmation, with key signature, of F\# major. In the present case, this process begins with the thème de Dieu, hammered out ff three times in three keys: in $B\{158-3-2\}, D^{b}\{160-1-1\}$, and $F$ \{161-3-1\}. This is followed by a section from $\{161-5-1\}$ to $\{166-3-1\}$ presenting the thème d'amour (or fragments of it) over thirty times, in many keys, but always accompanied by dissonant, unrelated chords. ${ }^{91}$ At \{169-5-1\} the thème de Dieu is brought back, presented as an unharmonized ostinato on the "dominant" pitch-class C\#, and similarly accompanied by dissonant harmonies.

[^43]${ }^{91}$ See note 88 , p. 99.

The last six of the score's 177 pages return to the key signature of F \# major for a "Glorification of the thème de Dieu," \{172-2-4\} that includes snatches of: birdsong; of a theme first heard in No. 4, Regard de la Vierge \{14-1-3: 5 bars); and of the thème d'amour. Traditional subdominant harmonies mark the beginning of the coda at \{175-4-2\} ("triumph of love and joy"), before the final tonic chords. The closing gesture of the piece includes three elements, all played fff and covering the entire range of the keyboard. First comes a thème de Dieu fragment in the centre of the keyboard, followed by a two-note oiseau interjection in the extreme upper range, and a final arpeggiated sevennote chord in fourths that descends to the piano's lowest note.

## Summary

From the above analyses it will be seen that Messiaen is able to generate traditional tonal structures using traditional harmonic means provided by his (non-traditional) second mode of limited transposition. These traditional structures comprise one end of a spectrum of harmonic possibilities that also includes dissonant and highly chromatic typical mode 2 structures. The composer sees no æsthetic or musical discrepancy in using these different structures side by side, and indeed, as will be demonstrated in the following two sections, the essence of his modal technique is one of non-exclusivity: many elements can be analyzed in more than one way, and most structures interpenetrate and hybridize readily, thus creating an overlapping, interlocking network of complex structures whose diversity is counterbalanced by the common threads that run throughout. Like the multi-colored hues of the stained glass windows so dear to the composer, the harmonic products of his modes are inherently multi-faceted and versatile.

## 4. Whole-tone and Polytonality: Modes 1 \& 3

Although modes 3 and 6 share a number of similarities, only the former is actually used to generate an overall sense of tonal organization. Consequently, this section will concentrate on the use of modes 1 and 3, grouping mode 6 despite some fairly compelling similarities to the present two modes-with modes 4 through 7, following the composer's own taxonomic inclinations.

In the following discussion the terms "polytonality" and "bitonality" signify the presence of multiple, but more or less traditional tonal centres, whereas "polymodal" indicates various combinations of Messiaen's modes of limited transposition.

## Mode 1

The examples of mode 1 usage will serve two purposes: to show how Messiaen's mode 1 structures vary significantly from familiar whole-tone sonorities (Debussy's, for example), and to demonstrate how their use is partially disguised by layering them with other more complex modal structures.

Example 55 (from Noël, a piece that features extensive use of modes 1 and 3 and some use of modes 6 and 4) shows mode $1^{2}$ used in a purely melodic capacity in several places. A new theme at \{91-1-1\} marked "comme un xylophone" takes all its notes from mode $1^{2}$, except for the fourth note of each 64th-note embellishing group. As this idea is extended in both range and duration, the source set remains the same, although additional embellishing notes are added.

Example 55a has only a single melody note foreign to mode $1^{2}(\mathrm{E})$, while example 55b has three embellishing groups of 64th-notes and three foreign
pitch-classes, D, A\# and E, as well as a chromatic filling-in of the original final three-note motif (D\#-C\#-B) as shown below. ${ }^{92}$ (Notes foreign to the mode are shown by arrows in ex. 55.)

$$
\mathrm{D} \#-(\mathrm{D})-\mathrm{C} \#-(\mathrm{C})-\mathrm{B}
$$

Ex. 55 Prominent melodic use of mode 1 in No. 13, Noël.
(a.) One embellishing group, one foreign pc, \{91-1-1\}.

(b.) Three embellishing groups, three foreign pcs, \{92-2-1\}.

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92 This motif, D\#-C\#-B, is, of course, the "Noël motif" itself (which is, in turn, a composite whole-tone structure; (see ex. 36d, p. 67), and the whole melodic phrase is nothing more than an extension of the "Noël motif" by embellishment (or anticipation) of its initial note: $\mathrm{D} \#$ (repeated in crescendo from $p p$ with a rapid four-note rising flourish) - $\mathrm{C} \#-\mathrm{B}$.

The use of mode 1 is "rendered unrecognizable" in this context by two means, the first of which is total chromatic saturation; three of the first four pitch-classes of the "xylophone" melody (D\#, G, A) complement the nine pitchclasses provided by the accompaniment to form an aggregate (the F is common to both sets). ${ }^{93}$ The second is by providing various conflicting tonal signals, rendering a single pitch-class focus-whether diatonic, whole-tone or other-difficult. Two of these conflicting tonal signals will be discussed.

First is an apparent G\# minor tonality, established in steps. The "joyous bells" of the piece's refrain-like opening four bars (G\#-F\#) suggest a G\# focus. This is extended first to the three-note "Noël motif" (G\#-F\#-E), and then to a four-note diatonic collection in $G \#$ minor, scale degrees 8-7-6-5, the latter spelled enharmonically at $\{90-3-2\}$ : G\#-F\#-E-Eb . This descending melodic minor scale is eventually completed when the three motivic notes of the mode $1^{2}$ melody ("xylophone") are conjoined with the two melodic notes of the accompanimental downbeat chords \{91-1-1...\}:

$$
G \#-F \#-E-E^{b} \quad D \#-C \#-B \quad A \#-G \#
$$

Second is the introduction of a new thematic element and a change of harmony on the downbeat of $\{91-1-1\}$. The accented $f$ chord with its appoggiatura is rich in perfect fifths (especially when taken together with the $D$ \# of the melody), and suggests strongly conflicting tonalities, namely $\mathrm{C} \#$ minor and C minor, neither of which is confirmed.

The last page of Noël furnishes a further, extended example of mode 1 usage in the "closing fan" gesture (see p. 220). As previously discussed, the "Noël motif" itself is a mode 1 structure, and its expansion at \{97-2-1: 6 bars $\}$

[^44]maintains this whole-tone structure in the soprano and bass voices, shifting briefly into mode $1^{2}$ only for the four chords of its widest expansion at \{97-3-2\}.

Toward the end of No. 6, Par Lui tout a été fait, in the midst of mode 2 / F\# major tonality, a bar-long interjection involving the thème d'accords is heard (ex. 56). Here again the clear melodic use of mode $1^{2}$ in the top voice is disguised by the familiar and atonal thème d'accords, whose pungent dissonances effectively mask the regularity of the whole-tone scale above it.

Ex. 56 Melodic use of mode 1 in No. 6, Par Lui tout a été fait, \{44-4-1\}.

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## Mode 3

Debussy, a composer much admired by Messiaen, is strongly evoked in Noël (No. 13)—obliquely in the mode 1 (whole-tone) passages just examined, and more clearly in the central " B " section of the ABA structure, where mode 3 is used almost exclusively, and around which the first analysis is centered. ${ }^{94}$

[^45]Ex. 57 Mode 3 usage in No. 13, Noël.
First three strophes of "B" section, \{93-2-1\} to \{94-1-3\}, (mm. 26-41)
(Strophes indicated I, II and III, the latter subdivided into members $\mathrm{a}, \mathrm{b}$, and c .)

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The ABA structure's "B" section is twenty-seven bars long (from \{93-2-1\} to $\{95-1-1\}$ ) and is divided into five strophes, the first three of which are reproduced above (ex. 57). This quiet section (marked "très modéré, tendre") creates the strongest possible contrast to the agitated, loud, atonal opening, and seems to be organized around C major, ${ }^{95}$ although this tonality is never asserted in the straightforward, obvious ways that the mode 2 structures asserted theirs; indeed, there is room for alternative interpretations (the most probable being one of the two other "roots" of mode $3^{1}$ : E or $\mathrm{A}^{\mathrm{b}}$ ). Two explanations for the C major choice can be offered, the first dealing with the prominence of the C major chord in the passage, and the second dealing with the pitch-class "roots" of the four different modes used therein.

First, both the harmony of C major and the melodic prominence of its members is remarkable-though not uncompromised. The principal motif of the section (ex. 57, first four bars) lands on scale degree 5 after a three-note anacrusis, proceeding to scale degree 3 immediately thereafter, sustaining and repeating this harmony. The melodic pattern $G-E-E(m .27)$ is repeated in slightly varied form in the following bar, before cadencing again on scale degree 3 twice in bar $30 .{ }^{96}$ Beneath each of the melodic appearances of scale degrees 3 and 5 , the tenor voice obstinately repeats scale degree 1 , middle $C$.

This clear insistence on a C harmony (either C-D-E or C-E-G) is perfectly clear in isolation, but in context, the harmony is challenged every time by an $A^{b}$ dominant sonority that rivals the $C$ chord; the feeling of fundamental is subverted, and a bitonal sound results. As suggested above, this superposition

[^46]of harmonies is characteristic of mode 3. Overall, the C major tonality proves to be the stronger of the two, although one brief passage in mode $3^{2}$ (marked "IIIc" in ex. 57) does "tonicize" the $\mathrm{A}^{\mathrm{b}}$ sonority temporarily.

In the whole section no pitches are lower than the left-hand $\mathrm{A}^{\mathrm{b}}$ dominant chord (enharmonically: $\mathrm{E}^{\mathrm{b}}-\mathrm{F} \#-\mathrm{A}^{\mathrm{b}}$ ), with three exceptions. First is the terminal gesture in left hand octaves, D-C - Bb , thrice repeated (see m. 34, for example). This is another instance of the "Noël motif," and has no strong tonal or cadential direction. Second is an acoustically strong root-position voicing of a C major chord at $\{94-2-3\}$ which sounds here like a departure from the prevailing harmony rather than an assertion of a tonic chord. The third exception has little significance, being nothing more one triad in a series of parallel left-hand chords that for one moment moves a step below the $\mathrm{E}^{\mathrm{b}}$ in measure 39 (last triad). ${ }^{97}$

As to the "roots" of the modes, it might be noted that the principal mode, $3^{1}$, is "based on" C (or E or Ab). The contrasting material, beginning with the Boris motif from La Vierge et l'Enfant, uses three modes. The first two ( $3^{4}$ and $2^{2}$ ), used in combination, have $G$ as a common root-the dominant of C. ${ }^{98}$ The third, mode $3^{2}$, forms the basis of a two-bar passage of triads moving in contrary motion (strophe IIIc) and intersecting at a single point: the C major chord in bar 40. There is a "voice exchange" between the two hands at this point, each circling the central $C$ triad with a $D^{b}$ dominant sonority in a quasiNeapolitan fashion.

[^47]The latter passage is complex and perhaps even contradictory-qualities not inconsistent with polytonality. Whereas G and C have been postulated as the theoretical modal "roots" of the third strophe, the ear is more likely to hear-following the left-hand triads-the succession $B^{b}-D^{b}-A^{b}$ (successive chordal "roots" of IIIa, b and c, respectively). In fact, Messiaen interweaves the harmonic progressions very subtly so as to integrate as smoothly as possible both the changing harmonies and the changing modes.

The third strophe's three members show an interesting overlap of harmonies, one leading to the next. The first (IIIa) begins on a $\mathrm{B}^{\mathrm{b}}$ harmony in the left hand (and a melodic $\mathrm{B}^{\mathrm{b}}$ in the right—both perhaps foreshadowed by the final $B^{b}$ in the left-hand octaves of bar 34) progressing to a $D^{b}$ harmony. The second member (IIIb) progresses similarly from $D^{b}$ to $E$, which chord is then picked up by the right hand. The third member (IIIc) begins with two triadic, tonal harmonies of E and $\mathrm{A}^{\mathrm{b}}$ superposed. Recalling that the opening chords of the section were $C$ and $A^{b}$, we have now heard all the nodes of mode $3^{1}$ sounded as vertical simultaneities. For the only time in the " $B$ " section of the piece, we perceive $\mathrm{A}^{\mathrm{b}}$ as the local tonic.

The next two examples of mode 3 constitute independent strands in polymodal textures, and therefore show no interaction with their surroundings. The polytonality of pure mode 3 structures is replaced here by the atonality characteristic of the majority of Messiaen's polymodal structures.

The right-hand pedal group at $\{14-3-3\}$ in No. 4, Regard de la Vierge, is built on mode $3^{2}$ (superimposed on the left-hand group in mode $4^{2}$ ). Because the voicings avoid triadic structures, these right-hand chords are not inherently polytonal, and the superposition of modes creates an atonal medium devoid of
any pitch-class focus save, perhaps, the $\mathrm{D}^{\mathrm{b}}$ that is the "root" of both modes and one of the focal pitch-classes of the piece as a whole, the pair $\mathrm{C} \# / \mathrm{E}^{\mathrm{b}}$. (This passage can be seen in example 61, p. 116).

Ex. 58 Mode 3 usage in No. 17, Regard du silence.
First page (p. 128).
Très modéré ( $\AA_{=66 \text { ) }}$

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In No. 17, Regard $d u$ silence, the opening nineteen bars constitute a rhythmic canon utilizing tâla 1 and superposing mode $3^{4}$ in the right hand on mode $4^{4}$ in the left in quasi-isorhythmic fashion (ex. 58). ${ }^{99}$ This example is different from the previous two in that it presents neither the frank atonality of No. 4, nor the tangible bitonality of No. 13. Here, the harmonies shimmer and change, like stained glass windows seen in a dream, the chords evoking wisps of familiar harmonies so faint and intermingled as to be no longer identifiable. Like the changing configurations of a mobile, the harmonies at any given moment may sometimes suggest vague tonal roots, but these impressions are never confirmed, and disappear as quickly as they arise.

The mode 3 chords whose presence is signalled a little later in the same piece \{129-5-3..., top staff are simply atonal splashes of color, using the same voicings as the right-hand chords of the opening.

As will be clear from these observations, one cannot always generalize as to the overall sound of a passage simply by identifying the modes employed therein; the way in which the modes are used is of equal importance. Certain modes offer certain tonal possibilities, but these may be exploited or avoided, at the composer's wish. It can therefore be said that mode 3 has strong polytonal potential, but that it is not always used in such a way as to exhibit this feature.

## 5. Atonality: Modes 4, 5, 6\&7

Either because of their chromatic density (in the case of modes 4 and 7) or because of their large gaps and paucity of thirds (in the case of mode 5), this

[^48]group of modes typically forms atonal structures, although a number of tonal harmonies are certainly possible. Mode 6 is included in this group, despite certain ties with modes 1 and 3 , because the familiar tonal units it is capable of generating are seldom organized in such a way as to truly create an overall impression of tonality.

The following discussion will attempt to isolate examples of "pure" usage of the modes before going on to examine passages of mixed modality and other more complex contexts.

## Mode 4

The first example consists of twenty-one bars of pure mode $4^{3}$, from the opening section of No. 16, Regard des prophètes, des bergers et des Mages (ex. 59). (The right hand by itself is in mode 2 , but this excludes the $G \#$ in the bass.)

Ex. 59 Mode 4 usage in No. 16, Regard des prophètes, des bergers et des Mages. Fịrst four bars, $\{122-1-1\}$.

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This example is less revealing of Messiaen's use of mode 4 than one might expect, as it is a purely rhythmic passage built on a four-chord ostinato. ${ }^{100}$

The left hand's incomplete (but typical) chord in fourths are part of the mode $4^{3}$ complex too, showing that their use is by no means restricted to mode 5 contexts (see remarks under "Mode 5," pp. 79-80).

This passage seems to be organized around A: that pitch-class represents both the lowest and highest pitches involved, and its "dominant," E, is repeated twice per bar (on the "strong beats," inasmuch as the term can be said to apply here). Moreover, it is conceivable that two leading-tone principles lie dormant in the chord, the pitch-classes G\# and D\# implying voice-leading resolution to A and E respectively, and the right hand's $\mathrm{B}^{\mathrm{b}}$ implying an upper leadingtone to the tonic. It seems unlikely but not impossible that the second triad in the right hand be perceived as a tonic chord.

Note that the proposed "fundamental" of the passage, A, while not a nominal root of mode 43 (i.e. $D$ or $A^{b}$ ), is carried forward as fundamental throughout the piece, despite changes of mode. ${ }^{101}$

The second example shows mode 4 used in an interesting passage that has a distinct black-key/white-key flavor: (7-4-1...\} in No. 2, Regard de l'étoile. The fact that the pitch-class content is composed of two identical hexachords a tritone apart immediately suggests the last four modes, and mode $4^{2}$ provides us with the required pitch-classes:

$$
\mathrm{G}-\mathrm{A}-\mathrm{C}-\mathrm{D} / \mathrm{D}^{\mathrm{b}}-\mathrm{E}^{\mathrm{b}}-\mathrm{G}^{\mathrm{b}}-\mathrm{A}^{\mathrm{b}}
$$

This arpeggio of single notes and whole-tone dyads (see example 2c, p. 10),

[^49]divided so as to have the black notes above and the white notes below, is employed as a pedal group above the ending of the principal theme in the left hand.

Example three, from No. 13, Noël, consists of a single, isolated chord containing all the notes of mode $4^{3}$ (ex. 60). This dense, chromatic splash shows black-white sonorities as well as near-symmetry radiating in both directions around a nominal root of mode $4^{3}, \mathrm{~A}^{\mathrm{b}}$, to the two important structural pitchclasses of the piece, CH and $\mathrm{E}^{\mathrm{b}}$. This isolated event illustrates how Messiaen constantly employed a wide range of resources and techniques. At times he took great pains to integrate and subtly interrelate different themes, modes and techniques, while at others he would juxtapose fragments of completely different structures, like so many brightly-colored beads on a string, seemingly concerned only with the overall impression of the total mosaic.

## Ex. 60 Mode 4 chord in No. 13, Noël, \{90-3-2 $\}.$


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The next three examples feature polymodal contexts involving modes 3 and 6 in combination with mode 4. The first, from No. 4, Regard de la Vierge, is a three-bar passage beginning at $\left\{14-3-3\right.$ ) and involving mode $3^{2}$ in the right
hand and $4^{2}$ in the left (ex. 61a).

## Ex. 61 Mode 4 chords in No. 4, Regard de la Vierge.

(a.) In left hand at \{14-3-3\}.

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(b.) Voice-leading features in same chords.
i. Chords extracted.
ii. Voice-exchange at boundaries.
iii. Dyad/unison transformation.
iv. Chordal transposition by interval-class 1.

v. Mode $4^{2}$.


The pitch-class C\# plays a prominent role here, and is part of the underlying axis $\mathrm{C} \# / \mathrm{E}^{\mathrm{b}}$; it is strongly asserted in the left hand at \{14-1-3\} (written in mode $7^{2}$ on $\mathrm{C} \#$ ), and repeated in octaves in the right hand in $\{14-3-1 \ldots\}$. At this
point the left hand begins its series of mode $4^{2}$ chords, with the upper note spelling out (in tenuto accents) a variation of the characteristic mode 5 melodic formula (see ex. 45b, p. 79), beginning on and returning to the fundamental pitch-class, $D^{b} .{ }^{102}$ A closer look at these chords reveals a series of voiceleading features (example 61b) including (ii.) voice-exchange at chord boundaries, (iii) dyad/unison transformation based on the "double leading tone" principle, and (iv) chordal transposition by interval-class 1 (up or down a semitone).

The next passage to be considered is part of a polymodal rhythmic canon from the opening section of No. 17, Regard du silence (ex. 58, p. 111). The two hands, though precisely related by the rhythmic canon, evolve with complete melodic and modal independence, the right hand in mode $3^{4}$ and the left in $4^{4}$. The very first left-hand chord recalls the pitches and sonority of the opening of No. 9, Regard du temps, a piece also prominently featuring rhythmic canon. ${ }^{103}$

Several factors conspire to prevent any sense of fixed tonality in this opening section, and foremost among them is the contrast in modes, chord types, and melodic contour employed by each hand. Because of the repetitive patterns, certain chords do stand out, but as the hands are not synchronized, the combinations are never the same, causing a quasi-isorhythmic, mobile-like shifting of sound patterns, constrained within perceptible limits but constantly and unpredictably changing nonetheless. The slow tempo and extremely quiet

[^50]dynamic ("ppp impalpable") also make precise cognition difficult, leaving the listener with only a vague general impression of the harmonies as they process through the predestined rhythmic patterns.

Ex. 62 Mode 4 in polymodal context. Opening lines of No. 5, Regard du Fils sur le Fils (p. 18).

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The last example (ex. 62) is similar to the previous one. Taken from No. 5, Regard du Fils sur le Fils, it also involves a polymodal opening section and the same tâla 1-based rhythmic canon seen in No. 17. ${ }^{104}$ In this case, however, a
third lower voice is added, repeating the thème de Dieu in mode 2 over a rhythmic pedal-a kind of tonal ostinato evolving beneath the same kind of harmonies as were seen in the previous example. Each line is given its own dynamic level (upper voice-mode $6^{3}, p p$; middle voice-mode $4^{4}, p p p$ "doux et mystérieux"; lower voice-mode $2, p$ "lumineux et solennel"), and the tempo is even slower: 16 th-note $=76$. Again, no clear impression of tonality can be formed, nor do any individual chords lend themselves to tonal interpretation. The final result is a kind of multi-colored atonality-an atonality defined not so much by lack of fixed tonal referents, but by the constant shifting and regroupings of little sonic pieces fitted together like tiles in a mosaic.

## Mode 5

Messiaen uses the "characteristic formula" and other mode 5 structures (see pp. 79-80) in only one piece of the cycle-Regard de l'Onction terrible (No. 18)-but its use there is pervasive. A twenty-two-bar introduction featuring two simultaneous rhythmic processes (progressively accelerating and progressively slowing series) and based on incomplete chords in fourths, followed by arpeggiated chords of resonance and chords on the dominant, precedes the exposition of the piece's basic musical material. ${ }^{105}$

This thematic material at $\{139-4-1\}$ is a solemn fff tritone proclamation in mode $5^{2}$, harmonized in plainchant-like octaves and perfect fifths (ex. 63a). The complete statement of the melodic phrase is broken up into thunderous
${ }^{104}$ See further discussion of this passage on pp. 125-6.
${ }^{105}$ Complete six-note chords in fourths do indeed have a special affinity with mode 5, but the (incomplete) three-note form is omnipresent and so essential to the composer's musical language that it becomes meaningless to relate it to mode 5. Messiaen states (Technique, 62) that "mode 5, being a truncated mode 4, has the right of quotation here only because it engenders the melodic formula and the chord in fourths..." The three-note form, however, can be generated by all of the modes except for mode 1.
pairs of chords separated by extremely rapid figuration marked "like lightning." Taken all together, these melodic notes (but not the harmonizing perfect fifths) rely completely and exclusively on mode $5^{2}$.

Ex. 63 Mode 5 structures in No. 18, Regard de l'Onction terrible.
(a.) First thematic material, \{139-4-1\}.

(b.) Mode 5 "characteristic formula," $\{140-2-3\}$.

(c.) "Characteristic formula" melodically altered and combined with Thème d'Accords, \{149-4-3\}.

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These thunderous chord pairs spanning tritones turn out to be only the halting beginning of the "characteristic formula" itself, seen, after three bars of new figuration, in the return of the fff octaves at $\{140-2-3\}$ (ex. 63b). This pattern continues with further permutations of the characteristic formula in other transpositions ( $5^{3}$ at $\{141-2-3\} ; 5^{6}$ at $\{143-2-3\} ; 5^{3}$ at $\{143-4-1\}$; etc.), with chromatic embellishment $\{142-3-1\}$, sequential development $\{144-2-1\}$, and so on, terminating in a texturally similar but melodically altered form at \{149-4-3\} (ex. 63c) that superimposes the transfigured mode 5 formula-now reminiscent of both the strange $f$ octave interjections of No. 4, Regard de la Vierge (see ex. 64) and the chromatic turnings of the thème de l'étoile et de la Croix-onto the thème d'accords.

Ex. 64 Octave melody of No. 4, Regard de la Vierge, \{14-4-2].

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## Mode 6

As described above (pp. 80-82), mode 6 permits a variety of tonal and quasi-tonal harmonies without necessarily forming coherent tonal structures. It also has a close relationship with mode 1 , the latter being a subset of the former. In Technique, Messiaen draws the reader's attention to example \#109
(from La Vierge et l'Enfant), where a variation of the Boris motif is accompanied by mode 6 chords. ${ }^{106}$ It is significant that this theme, usually harmonized and associated with mode 2 , is also used in association with modes $3^{4}$ (Noël, \{93-5-1\}) and 6 (ex. \#109)-another demonstration of affinity between modes 2, 3 and 6 .

The first example of pure mode 6 usage, although only one bar long, illustrates the above characteristics. Found at \{119-2-2\} in No. 15, Le baiser de l'Enfant-Jésus, it provides a brief substitution-unique in the piece-for the otherwise omnipresent mode 2. At the climactic moment of the penultimate section it is inserted into the essentially tonal progression as a harmonically extended secondary dominant ( $\mathrm{V} / \mathrm{V}$ ), as shown in example 65.

The shift from mode 2 to mode 6 and back again is accomplished by means of a "pivot chord" common to modes 2 and 65, D\#-F\#-A\# (spelled enharmonically in flats in bar 114). We hear this chord alone, with a sostenuto accent, at the end of bar 114, then immediately again an octave higher (in bar 115) with an $A^{b}$ triad voiced clearly below it-the V/V harmony. It is voiced identically in the following bar as the second chord of a triplet figure in the I-sixfour group. From the initial combination of right- and left-hand triads at the downbeat of bar 115, the hands converge in contrary motion, using notes exclusive to mode $6^{5}$, terminating in a "voice-exchange" involving the pitchclasses D and C (soprano and bass) that encircle (without touching) the "dominant" pitch-class, C\#. ${ }^{107}$ The C\# dominant is then prominently supplied in the left hand on the downbeat immediately following.

[^51]
## Ex. 65 Climax of section III, "Le baiser," in No. 15, Le baiser de

 l'Enfant-Jésus.(a.) Score excerpt, \{119-1-1: 7 bars $\}.{ }^{108}$

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(b.) Harmonic simplification. ${ }^{109}$

$$
\mathrm{I}, \mathrm{IV}-\mathrm{I}, \mathrm{IV}-\mathrm{I},(\mathrm{~V} / \mathrm{V}), \mathrm{I} \text { six-four }, \mathrm{V}^{7}, \mathrm{I}
$$

${ }^{108}$ In the following discussion reference will be made to actual bar numbers as found in this example ( $\mathrm{mm} .112-118$ ).
${ }^{109}$ Commas represent barlines. Note that the initial chord of $m .115$ is in fact an $A^{b}$ dominant harmony; enharmonically $\mathrm{V} / \mathrm{V}$ in $\mathrm{F} \#$. Thereafter the $\mathrm{V} / \mathrm{V}$ function is replaced by the mode 6 complex that follows. The V/V function, then. is both a literal description and an analogy.

The triads involved in this passage are of four types: major, minor, augmented, and in perfect fourths, and are thus not entirely divorced from the overwhelmingly tonal sonorities of mode 2 , while yet being sufficiently different (and more complex in their superpositions) to distinguish them at a structurally important moment. Messiaen has heightened the degree of harmonic ten-sion-as would normally be accomplished through the use of secondary dominant harmonies-by strategically substituting one mode for another.

A second, very brief example highlights the tritone relationship inherent in mode 6. The three-staff rhythmic canon portions of No. 9, Regard du temps, feature a bass voice that proceeds as an ostinato in tritones drawn from mode 65 . These tritones blend very well, of course, with the chords in fourths of the upper voices, themselves rich in tritones (ex. 66).

Ex. 66 Mode $6^{5}$ tritones in bass voice of rhythmic canon in No. 9 . Regard du temps, \{55-3-1].

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Piece No. 5, Regard du Fils sur le Fils, provides an excellent example of polymodality and polyrhythms, the latter in the form of a two-voice rhythmic canon evolving above a rhythmic pedal. The upper voice, in mode $6^{3}$, uses tâla 1 in its original values while the middle voice, in mode $4^{4}$, uses tâla 1 in values augmented by a dot. The lower voice repeats the thème de Dieu over an unchanging rhythmic pedal whose first three quarter-notes imitate the first three notes of the original canonic voice (see ex. 62, p. 118).

There is little opportunity here for a cohesive pattern of tonal harmony to emerge, as the voicings of the chords in the upper two lines for the most part avoid familiar triadic harmonies, and do not reinforce or complement each other. Nor does the quasi-tonality of the thème de Dieu interact with or influence the other voices; as is typical of the composer in such contexts, the separate voices evolve with absolute independence. ${ }^{110}$

Any threads of tonal or melodic organization in the upper voice alone (mode $6^{3}$ ) do not carry sufficient weight to generate an overall sense of such organization, especially given the registral and thematic significance of the lower ostinato voice. Two such threads may nevertheless be pointed out.

First is an almost constantly repeated melodic component, C - $\mathrm{D}^{\mathrm{b}}-\mathrm{D}$, interrupted only in the last five values of talla 1 . Second is the initial threechord group that, in isolation, weakly establishes C as tonic by placing an enharmonic F\# major triad between two inversions of a quasi-tonal perfect fourth structure, C-D-G, that could be interpreted as a chord on C. Theoretically, this C/F\# juxtaposition could be further advanced by citing the F\# tonality of the lowest voice, although, as suggested above, this remains unconvincing to

[^52]the ear.

The final example of mode 6 usage, taken from the highly atonal No. 16 , Regard des prophètes, des bergers et des Mages, is inconclusive for two reasons. First, the basic melodic material of the work, the five-note linear sequence
${ }^{(\mathrm{D})} \mathrm{C}-\mathrm{B}-\mathrm{A}-\mathrm{D} \#-\mathrm{C} \#$
illustrated below (ex. 67), can be integrated equally well into three different modes: $3^{2}$ (on A; 9 pcs), $6^{2}$ (on G; 8 pcs ), and 7 (on C; 10 pcs ). Second, even if we accept this basic melodic sequence, for the reasons outlined below, as being derived from mode $6^{2}$, it is never used harmonically, or even developed further. It remains an unchanging basic entity whose classification by mode has, ultimately, little significance.

Still, in assigning a mode to this motif, the choice of mode $6^{2}$ seems preferable for two reasons. First, mode 6 has fewer pitch-classes than the other two, and is thus more economic with its resources. Second, the five-note motif presents the clear white-black (or diatonic-chromatic) opposition that usually characterizes mode 6.

Ex. 67 Principal theme, No. 16, Regard des prophètes, des bergers et des Mages: "Hautbois," \{123-2-1\}.

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In the final analysis, a cohesive, overall picture of the tonal organization and harmonic structures in No. 16 remains elusive, even though many local details are readily grasped.

## Mode 7

Given that the thème de l'étoile et de la Croix is written in mode $7^{3}$, the two pieces that feature this theme, Nos. 2 and 7 , will naturally come to mind. As this theme is unchanging and purely melodic, however, other sources may provide us with more useful examples of the composer's use of the seventh mode. Suffice it to say before moving on that although mode 7 seems ideal for densely chromatic, atonal structures, Messiaen does use it on occasion to produce tonal harmonies such as the $\mathrm{A}^{\mathrm{b}}$ minor chord with an added sixth that constitutes the six punctuating cadential chords in No. 7, Regard de la Croix. Example 68 illustrates the mode 7 basis of thematic material in Regard de la Croix.

Ex. 68 Mode 7 basis of thematic material in No. 7, Regard de la Croix.
(a.) Mode $7^{3}$.
(b.) The Thème de l'Étoile et de la Croix.
(c.) $\mathrm{A}^{\mathrm{b}}$ minor punctuating chords: first example at \{46-3-1\}.


As previously mentioned, Regard des prophètes, des bergers et des Mages (No. 16) is an interestingly complex piece that does not give up its harmonic secrets readily. It is almost exclusively based on the curious five-note theme, C-B-A-D\#-C\#, possible in modes $3^{2}, 6^{2}$, and 7 (ex. 67). The moment these pitch-classes are first harmonized (123-5-1...\} provides us with examples of four mode 7 chords, each in a different transposition (ex. 69). Here the melody is struck in accented dotted eighths (shown with arrows), while the harmonies come in the form of two-handed broken chords. The first bar yields chords in $7^{4}$ (harmonizing " C "), $7^{6}$ (" B "), and 75 (" A "), while the last chord of the second bar is in $7^{3}$ ("C\#"). The D\# chord on the downbeat of bar two does not fit any mode, and may perhaps be viewed as an appoggiatura chord, just as the single melodic note $\mathrm{D} \#$ seems to act as an appoggiatura to the CH .

While nothing conclusive can be drawn from this single example, it is certainly indicative of the densely chromatic, atonal harmonies that one might expect from the seventh mode. ${ }^{111}$

## Ex. 69 Mode 7 harmonizations of principal theme, No. 16, Regard des prophètes, des bergers et des Mages, \{123-5-1\}.


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[^53]
## 6. Patterns of Tonal Organization

In this section, discussion will focus on the specific keys and pitch-classes used in the harmonic organization of the cycle. The tonality of F\# major is clearly central, being the chosen key for the primary theme, the thème de Dieu, and found in seven of the eight pieces using traditional tonality. In six of those seven instances, the score also features a key signature of six sharps. Second in importance is the key of $\mathrm{B}^{\mathrm{b}}$ major, found in three pieces, followed by D major, found in two. These three key areas, F\#, $\mathrm{B}^{\mathrm{b}}$, and D , are symmetrically distributed in the octave-a feature that cannot be considered fortuitous. ${ }^{112}$

In the non-tonal, focally-organized pieces, three pitch-classes are strongly represented: $E^{b}, A^{b}$, and $C \#$, while $D$ and $A$ are represented once each. Note the intervallic relationship of the first three by perfect fourths, which interval also relates the last two. Taking all the above pitch-classes together (i.e. the key areas and the pitch-class foci) one obtains the pentatonic series of the five black keys on the piano plus the two white keys, D and A.

Messiaen's preoccupation with structural symmetry, generally manifest at many levels in his compositions, is evident here in the relationship between these important pitch-classes. ${ }^{113}$ All of these pitch-class sets are symmetric around the axis $D / A^{b}$ except for the $A$, which remains outside this sphere of symmetry. These symmetries are diagrammed in example 70.

[^54]
## Ex. 70 Important pitch-class centers in the Vingt Regards. (Symmetry around D/A ${ }^{\mathrm{b}}$ axis)

| Principal tonal pc foci: | D |  | F\# |  | $B^{\text {b }}$ |  | D |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Principal atonal pc foci: |  | $\mathrm{E}^{\text {b }}$ |  | $\mathrm{A}^{\text {b }}$ |  | C\# |  |
| All principal pe foci: | D | $\mathrm{E}^{\text {b }}$ | F\# | $A^{\text {b }}$ | $B^{\text {b }}$ | C\# | D |
| Pentatonic subset: |  | $\mathrm{E}^{\text {b }}$ | F\# | $A^{\text {b }}$ | $B^{\text {b }}$ | C\# |  |
| Secondary atonal pe foci: | D |  |  |  |  |  | D |

* Not part of $\mathrm{D} / \mathrm{A}^{\mathrm{b}}$ axis symmetry.

Both the specific pitch-classes and the general linkage patterns outlined above are reflected in microcosm in the tonal structure of No. 10, Regard de l'Esprit de joie, where the key areas are linked in chains of rising or falling minor or major thirds (see ex. 49, p. 90). Also note that of the three new pitchclasses found here ( $\mathrm{C}, \mathrm{F}$, and B ), two ( F and B ) are again symmetric around the same axis $D / A^{\text {b }}$, leaving only $C$ and $A$ outside this axis of symmetry, albeit in structurally important positions.

## CHAPTER 4

FORM IN THE VINGT REGARDS

\author{

1. Introduction
}

No one would argue that the Vingt Regards are without complexities at virtually every level of their structure, yet at the same time, formal complexities are not, as a rule, characteristic of the score. Messiaen's compositions generally consist of sections whose boundaries are readily perceived, juxtaposed one against another. This gives rise to simple sectional forms, often though not always strictly symmetrical. The number of sections in each piece varies, and each section may contain several distinct ideas, but in general, the large-scale formal structures can be expressed in simple terms, as can the subdivisions of the principal sections.

While it is perhaps true that discrete blocks of thematic material are the bread and butter of Messiaen's art, another mode of thought-one of a much different sort-provides an equally important compositional technique. This second technique is the use of musical processes-patterns of change that are themselves unchanging. A musical process can be said to correspond to a mathematical function. Once a process is set in motion it needs no further outside intervention, but simply unfolds.

Messiaen employs four musical processes: rhythmic canons, rhythmic pedals, progressively accelerating or progressively slowing series, and asymmetrical expansion. The first three are rhythmic-a domain of fundamental importance for the composer ${ }^{114}$-while the last deals with pitch-class organ-

114 "Je suis un musicien rythmicien..." (Messiaen, Conférence de Kyoto, 1).
ization.
These two fundamentally different modes of musical thought interact constantly in Messiaen's music, the processes enriching or transforming the simple sectional structures. The use of process transforms the nature of the music from a series of static objects (however kaleidoscopically interesting they may be in themselves) into an evolving, dynamic flow of patterned sound. The ear of the listener follows the dynamic evolution of the process, but is guided in the overall structure by the simpler patterns of repetition provided by the unchanging blocks.

Generally speaking, instead of the traditional concept of "development" of musical themes, Messiaen tends to favor processes (which allow a kind of development along strictly predetermined lines). With musical processes, the increments of change are perceptible over time, but their ultimate goal is not. The term "goal" in fact has no part here, and properly belongs to the traditional style of theme and development; the process exists on its own terms, and is interesting for its own sake.

The following discussion is essentially a summary of the forms used in the Vingt Regards. These have been placed into four categories: unipartite forms; simple repetitive forms based on two or three ideas; more elaborate sectional forms; and adaptations of two traditional forms, fugue and sonata.

Tables 2 and 5 (in Appendix 1) provide a rapid overview of this information, the first containing brief formal descriptions of the twenty pieces, and the latter supplying a statistical summary of forms in the work. Table 5 forms the basis of the following prefatory remarks.

There are a number of valid ways of categorizing forms, and two have been used here. The first method is to proceed by general formal descriptions,
while the second classifies by the number of parts-that is to say the number of distinct sections as indicated by letter names, as opposed to the actual number of sections generated by the various repetitions. There is, of course, some overlap in these two methods.

As defined the second way, nearly one-half of the pieces have no more than two distinct sections, and three-quarters of them have no more than three such sections. In other words, the large-scale structure of fifteen of the pieces can be represented using only the letters $\mathrm{A}, \mathrm{B}$ and C . There remain five pieces to deal with in more complex terms.

Several general observations can be made using the first method, and these help to put some of the comments from previous sections into a clearer perspective. Four pieces are unipartite, and three are essentially variational. Eleven regards employ simple sectional schemes of no more than three parts ( ABC ), while only four require four or more parts ( $\mathrm{ABCD} \ldots$ ). Two remaining pieces are identified as fugue and sonata by the composer.

It may be further observed that ten pieces have variational aspects to some sections, while fifteen make use of the four musical processes outlined above.

Finally, a word on two notational practices adopted in sketching forms symbolically. First, an "X" has been used to represent prelude and postlude material not used elsewhere in the piece, thus designating sections that have a unique bookend-like function. (The rhythmic processes that open and close No. 17, Regard de l'Onction terrible, are thus labelled.) While no strict criteria have been invoked to distinguish " X " material from what would otherwise be "A" material, two factors have influenced my decisions: (1) the degree to which the framing material is thematically independent of the rest, and (2) the formal simplicity afforded by each alternative, the simplest description generally being
the preferred one. Second, the symbol "_c" is used to represent "coda." Codas are usually just very brief snippets of material previously heard.

## 2. Unipartite forms

Under this heading are grouped two types of structures: those that are nonsectional, and those that are monothematic but divisible into strophes (giving a form of AA, for example, as in the case of No. 1, Regard du Père). It is to be understood that even nonsectional pieces can usually be subdivided in some meaningful ways; the question is whether these subdivisions constitute important formal divisions or superficial articulations of phrase.

There are two examples of nonsectional structures. L'échange (No. 3) is based on a single complete asymmetrical expansion cycle, such that once all the pitch-classes have returned to their original level (i.e. after twelve transpositions) the piece ends. In fact, a six-bar coda is stretched out of this ending by repeating first the "final" bar, then just the left-hand fragment, and finally a two-handed chromatic cluster using all twelve tones. In L'échange we have a case not of musical process altering form, but of process generating form.

La parole toute-puissante (No. 12) consists of continuous monody in octaves evolving over a rhythmic pedal pounded out twenty-one times on a nonretrogradable rhythm on the lowest notes of the piano. This non-retrogradable rhythm of 3-5-8-5-3 (16th-note values) is, in fact, the first bar of tâla 2 (see ex. 14, p. 30).

There are also two examples of the second type (monothematic but strophic), both straightforward expositions of lengthy themes, and neither one involving musical processes of any sort. Regard du Père (No. 1) states the ela-
borated thème de Dieu (i.e. not the five-chord motif; see pp. 37-38) twice, while Regard de la Croix (No. 7) spells out the thème de létoile et de la Croix once. No contrasting material relieves the monothematic nature of these pieces, allowing the listener's attention to focus clearly on the themes.

## 3. Simple repetitive forms based on 2 or 3 ideas

The thème de l'étoile et de la Croix just discussed had been previously heard in No. 2, Regard de l'étoile, where it was presented twice, the first time unaccompanied, and the second time with new material filling the gaps left at the cadences. ${ }^{115}$ The presence of a five-bar refrain, however (heard at the beginning, middle, and end of the piece, articulating the two strophes), changes what would be an AA' form to ABAB'A, thus providing us with our first example of simple repetitive forms based on two or three ideas. ${ }^{116}$ As in No. 7, no musical process is associated here with the thème de l'étoile et de la Croix.

Two of the Vingt Regards are set in a form of the utmost simplicity, alternating two contrasting elements, A and B. In No. 5, Regard du Fils sur le Fils, "A" is a rhythmic canon in three voices of some rhythmic and modal complexity, and " B " is birdsong, "comme un chant d'oiseau." As the elements are repeated three times, the result is an ABABAB form. There are actually two rhythmic processes going on simultaneously in the " $A$ " sections: rhythmic canon based on tâla 1 in the upper two voices, and a rhythmic pedal stating the thème de Dieu in the lower voice. The latter is based on a non-retrogradable
${ }^{115}$ For more detailed discussion see Part Two, Analysis $\mathrm{N}^{\circ} 1$.
116 Alternate designations such as XAXA'X or RARA'R ( $R=$ refrain) would help show the relative importance of the thematic material involved, but have been rejected because of the value judgements (that are not necessarily relevant or correct) they invoke. In essence, the issue is this: do such short sections warrant the status accorded by a formal letter name, or should their brevity be reflected in the use of symbols connoting secondary importance?
rhythm of 3-2-3 quarter-note values.
Regard du temps (No. 9) similarly repeats each of its two elements five times (ABABABABAB) with some variation and prolongation on each occasion. In this case, "A" is a strange, hypnotic chordal theme using the dhenkî or cretic rhythm, and " $B$ " is a three-voice rhythmic canon based on the same rhythm. With the elements changing and lengthening progressively throughout, an overall shape is given to the piece, adding interest and variety to what would otherwise be a dull and predictable sequence. A fuller explanation will be found in Part Two, Analysis $\mathrm{N}^{\circ} 2$.

To No. $13, \underline{\text { Noël }, ~ a n ~ e q u a l l y ~ s i m p l e ~ b u t ~ p e r h a p s ~ m o r e ~ s a t i s f y i n g ~ f o r m ~ i s ~}$ given: ABA or "song form." Again, the two elements contrast strongly, "A" beginning $f f$, "Très vif, joyeux" and " B " marked $p$, "Très modéré, tendre." Along with these outward manifestations of contrast there are other more subtle differences between the sections. "A" is itself subdivided into "aba" form and is atonal with mixed modality, while " B " is subdivided into "cdcd/c" (the fourth unit " $d / c$ " being a fusion of " $d$ " and " $c$ ") with " $c$ " in strict mode 3 , and " $d$ " a superimposition of the Boris motif in mode $2^{1}$ and accompanying chords in mode $3^{4}$.

Noël incorporates two rhythmic pedals, one very prominent in the pealing bells of the "A" sections, and the other hidden in the " $B$ " section where it is repeated five times with slight variations at each occurrence (such as subdivision of long values and extension of terminal values), lending a calming homorhythmic texture to the passage.

In Regard des hauteurs (No. 8) this form is extended by the addition of a third element, and the resulting ABAC form is given a greater sense of closure by the addition of a coda. The piece is based almost entirely on birdsong, and
presages later works such as Oiseaux exotiques (1956) and Catalogue d'Oiseaux (1956-58). The heart of the piece is essentially birdsong, represented above by " B " and " C ," the " A " being nothing but a short ppp blur of black-key/white-key sonorities that helps establish the mood or background for the birdsong. ${ }^{117}$ No processes are involved here.

It requires only a third repetition of the intial "A" to make the preceding form more symmetric, and No. 11, Première communion de la Vierge, does just that. Its ABA'CA form is heavily informed by the variation principle, $\mathrm{A}^{\prime}$ being essentially a series of variations on the " A " theme.

Two processes operate in No. 11. The first is one of intervallic expansion, where a series of four chords ( $a-d$ ) is repeated three times ( $a b, a c, a d ; a b, a c$, ad; etc.), the "a" remaining stationary, the other chords moving upwards in ever-increasing leaps \{80-5-1: 3 bars\}. The second is rhythmic, and has two contiguous parts. The first \{81-2-4: 6 bars\} involves the progressive augmentation of the first value in a group of two, the second value remaining steady at a quarter-note throughout. The second part, marked "Valeurs de 2 en 2, de 1-3 à 13-15," also involves the progressive augmentation of values, this time of both elements in each pair. Measured in 16th-notes, the values in this series \{81-4-1: 18 bars\} proceed in this fashion: 1-3, 2-4, 3-5, 4-6, ..13-15. ${ }^{118}$

If this small step makes the previous form more symmetric, then a slightly larger one will achieve absolute symmetry. Accordingly, Regard de la Vierge (No. 4) uses a (non-retrogradable) arch form, with a coda based on the central episode, "C": ABACABA_c. Brief three-bar passages of asymmetrical expan-

117 The issue described in the previous note is pertinent here.
118 It seems clear that the following two bars continue the series one more step, 14-16 (the 14 rendered inexactly as a quarter-note rest). This assumption is supported by the fact that all of the values in the progressively accelerating or progressively slowing series move from 1-16, or from 16-1 precisely. The passage is discussed in greater detail in Part Two, Analysis $\mathrm{N}^{\circ} 3$.
sion are seen at $\{13-2-4\}$ and $\{16-4-2\}$.
If the only concern were simplicity, the ideal three-element form would be the series $A B C$. As this lacks balance, elegance, and structural subtlety, however, it is not to be found in the Vingt Regards. The fifteenth piece, Le baiser de l'Enfant-Jésus, comes close nevertheless, avoiding such awkwardness by a (varied) reprise of the opening section: $\mathrm{ABCA}^{\prime}$. A rhythmic pedal can be observed in association with the thème de Dieu at \{113-2-1: 6 bars $\}$, followed by a short canon \{114-3-1: 3 bars\}. Immediately thereafter \{114-4-2: 4 bars\} follows a series of steadily augmenting values (involving the last notes of elements " $b$ " and "c" of ex. 51, p. 94), starting with an 8th-note, and lengthening each time by a 16 th-note value.

The latter form can itself be rendered symmetric by adding the original two elements, in retrograde order, after the third one: $A B C B A$. We find this form, with coda, in No. 19, Je dors, mais mon cceur veille.

Included in this category, but of a slightly different nature, are the two pieces relying essentially on variation form. Regard des Anges (No. 14) appears to have two elements, taking the form

$$
\mathrm{AA}^{\prime} \mathrm{A}^{\prime \prime} \mathrm{B} \mathrm{~B} \mathrm{~B}^{\prime} \mathrm{B}^{\prime \prime} \mathrm{c}
$$

but a closer look reveals a number of subtle connections between "A" and "B." Furthermore, "A" itself is subdivided into five elements (a-e), making the larger-scale variation/repetition less evident. Rhythmic canon based on tâla 1 forms the basis for the "d" subsections and is thus found throughout the piece. The concluding section \{107-1-3: 23 bars $\}$ is an adapted or inexact form of asymmetrical expansion.

The second essentially variational piece, Regard des prophètes, des bergers
et des Mages (No. 16), uses two themes so closely linked that one is tempted to consider the second (B) as a variant form of the first (A). They are framed by " X " material (prelude/postlude), and add a short coda based on a combination of the two themes. The "X" material here consists of rhythmic processes evolving under a right-hand ostinato: a gradually accelerating series in the opening, and a gradually slowing series at the end. Like No. 14, this piece has a highly symmetrical form based on the variation principle:

$$
\text { X A B B' } \mathrm{A}^{\prime} \mathrm{X}^{\prime} \_\mathrm{c}
$$

Both (traditional) canon and augmented/diminished rhythmic variants are found in No. 16, but the only true processes are the two series strikingly placed at the opening and closing of the piece.

## 4. More elaborate sectional forms

Three pieces will be considered under this heading, the first two presenting some similarities. Regard du silence (No. 17), takes the following form:

## X ABCDE ABCDE X'

the first $X$ being a two-voice rhythmic canon based on tâla 1 , and the second ( $\mathrm{X}^{\prime}$ ) using the same series of chords repeated in a steady 16th-note rhythm. In this structure we can see a fusion of binary and arch-forms.

The eighteenth piece, Regard de l'Onction terrible, resembles its predecessor while being slightly simpler, taking the form

$$
X^{a b} A B A C A B A C X^{b a}
$$

The result is a more stable central portion that returns more frequently to its principal theme, but a compound " X " whose two elements appear in reverse order at the end. Here, as in many of the pieces, Messaien constantly changes and transforms his musical material so that the dividing line between what is significantly new and what is a varied repeat of previous material becomes difficult to draw. It is therefore possible to arrive at something different from the "ABAC" central episodes above, but the broad lines of the analysis-the binary nature of the central episode, the frequent recourse to the "A" material, the reversal of the framing " X " elements-remain true. 119

The process involved here is the arresting simultaneous deployment of two progressive rhythmic series, the upper voice slowing, the lower voice accelerating, that forms the $\mathrm{X}^{\text {a }}$ material (the role of the two voices is thus reversed at the end of the piece).

The tenth piece, Regard de l'Esprit de joie, takes this shape:
X A*BACA X_c
(The asterisk represents a complete asymmetrical expansion cycle following the initial "A" section.) The complex tonal organization of this piece (see ex. 49, p. 90) and its great length are perhaps balanced by its relatively simple structure, which is discussed in this category on account of the additional elements ( $\mathrm{X},{ }^{*}$, and _c) spliced to the basic three-element ( ABC ) shape.

## 5. Adaptations of traditional forms

The two remaining pieces, numbers six and twenty, are the longest of the
119 In my opinion, however, it is a serious distortion to treat No. 18 as an example of "song form" (i.e. ABA, where A is equivalent to my "X," and B to the entire central episode), as does Reverdy, ibid., 54.

Vingt Regards, followed closely by number ten. Together, the three comprise fully one third of the score's pages. Certainly this is not coincidental, and it is easy to imagine why the pieces concluding each half of the set (as they would undoubtedly be performed in concert; see note 74, p. 87)—particularly the final one-should be so written as to create the strongest possible impression. If one seeks justification for the corresponding length of the sixth piece, Par Lui tout $a$ été fait, the literally infinite scope of its subject suggests itself as a probable reason.

On the other hand, it is not impossible that Messiaen felt that a general familiarity with traditional forms would enable him to greatly extend the pieces in sonata and fugue form without losing his public in the process. Be that as it may, the composer took pains to explain at some length the architecture of the two pieces in question.

The sixth piece, Par Lui tout a été fait, is described in this way:

It is a fugue. The subject is never given [twice] in the same fashion: from the second entry its rhythm and register are changed. Notice the episode where the upper voice treats the subject as a non-retrogradable rhythm eliminated on the right and the left, [and] where the fortissimo bass repeats a fragment of the subject in agrandissement asymétrique. Middle [section based] on very short and very long values (the infinitely small, the infinitely big). Reprise of the fugue in retrograde, in crab canon. Mysterious stretto. Thème de Dieu fortissimo: victorious presence, the face of God behind the seething flames. All creation takes up and sings the thème de Dieu in a canon of chords. ${ }^{120}$

These indications are carefully inserted into the score, simplifying analysis for the performer (if not the listener), and many other details of the score are

[^55]well documented in Reverdy's analysis, the essence of which is a five-part structure (with an extremely brief coda) as follows: ${ }^{121}$

1. Exposition (mm. 1-62)
2. Middle (63-68)
3. Retrograde recapitulation of the exposition (69-130)
4. Stretti (131-161)
5. Thème de Dieu and thème d'amour (161-end) [coda=last 2 bars]

On the basis of this description one might imply the following form:

> A B A' C D_c

The B section's brevity, however, reduces its formal importance, resulting in an
A * A' B C_c
form (the asterisk representing the bridge material separating the statements of the principal fugal sections, $A$ and $A^{\prime}$ ). The "non-retrogradable" quality of the first three sections ( $\mathrm{A}^{*} \mathrm{~A}^{\prime}$ ) should also be noted.

Depending on how one views the various developments of the subject itself, the fourth section (stretti) might even be regarded as another variation of the fugal exposition, resulting then in a form that is essentially variational, with a contrasting section appended as a sort of gigantic coda (the thème de Dieu / F\# major / mode 2 section): ${ }^{122}$
A * A' A" B_c

[^56]This view does not adequately show the bridge-like nature of the $A^{\prime \prime}$ section's tonality which acts like a hinge between the atonality of the first section ( $A^{*} A^{\prime}$ ) and the $F$ \# major tonality of the final " $B$ " section.

Not surprisingly, both Reverdy and Halbreich corroborate the fùgal assertions of the composer, the latter going so far as to situate the piece alongside other great fugues of the traditional repertoire:

To approach this subject "about which no one can speak," the composer "hid himself behind a [gigantic] fugue," worthy of the models which it demands; the seventh fugue from Bach's The Art of the Fugue and the finale of Beethoven's Sonata, opus 106, and is no less "anti-scholastic" than they [sic]. ${ }^{123}$

Griffiths begs to differ, qualifying it as an "anti-fugue" whose final section "is a removal from fugue into exultant toccata-style ostinato," making for a movement that "has less in common with Bach, or even with Franck or Dukas, then with the anti-fugue that was to conclude Boulez's Second Sonata four years later." ${ }^{124}$ Certainly this "removal from fugue" is made clear in the last analysis above ( $A^{*} A^{\prime} A^{\prime \prime} B_{-}$c).

There are numerous examples of rhythmic processes at work in No. 6 such as the rhythmic canons found at \{26-1-1: 8 bars\} (based on tâla 2) and \{26-4-1: 8 bars $\}$ (based on tâla 1), and the asymmetrical expansion at \{28-1-1: 9 bars\} and \{35-5-1: 12 bars \}, to cite but a few. Their presence in this piece is nearly hidden by the constantly evolving, developmental treatment of the fugal theme itself, which tends to sound like asymmetrical expansion, even though it is not.

[^57]The composer describes the Regard de l'Église d'amour (No. 20) as a sonata "where the development precedes the exposition," noting the following details:

## Development:

First theme on a non-retrogradable rhythm, amplified on the right and left; it is punctuated by piano runs in contrary groups. Three statements of the "thème de Dieu" separated by asymmetrical expansion. Development of the third melodic theme. First theme with [contrary] groups, new asymmetrical expansion. A pealing of bells forming a dominant pedal and recalling the chords of the preceding pieces.

Exposition:
Complete phrase on the "thème de Dieu" with fanfare and glory. Long coda on the "thème de Dieu"-triumph of love and joy, tears of joy. ${ }^{125}$

This structure could be reflected in a number of ways, depending on which particular features were being emphasized. A reasonable compromise might look like this:

A contrary groups, non-retrogradable theme, thème de Dieu fragments, asymmetrical expansion;
B thème d'amour;
A' contrary groups, non-retrogradable theme, asymmetrical expansion;
C thème de Dieu ostinato, accords de carillon / thème d'accords / etc., progressively slowing series;
D thème de Dieu-2 complete phrases in F\# major;
D' coda-thème de Dieu (in F\#).

Naturally, if this were to be reordered in the way that one would expect to hear sonata form (not in the way it is actually heard), it would become:

[^58]
## ABCB'DA

resulting in a more regular structure with greater symmetry, particularly if one attempts to reduce the relative importance of the " D " section by viewing it as (only) an expanded dominant preparation for the return to $\mathrm{F} \#$ major.

Griffiths's comment on this "nominally archtypical form" is that the composer:


#### Abstract

...would see this as another example... of sonata form, in which the development precedes the exposition, but the 'development' is really a development of much that has happened during the course of the preceding nineteen movements, and the 'exposition' serves as a triumphant recapitulation of the themes of God and of joy or love. ${ }^{126}$


As noted above (and as in No. 6) there are many examples of musical processes in the final Regard. Here, however, they tend to articulate various elements of the formal structure. For instance, the examples of asymmetrical expansion serve to set apart the initial brief thème de Dieu statements, and the progressively slowing series at \{171-3-4: 18 bars\} helps prepare the triumphant final return of the $\mathrm{F} \#$ major tonality. In this way Messiaen permits these organic musical processes to interact with their surrounding structures to various degrees from incidental to fundamental.

[^59]
## PART TWO

## ANALYSES

## FOREWORD

The pieces chosen for analysis in this section have been selected on the basis of the number of different aspects of structure that they collectively illustrate. In order to represent the greatest number of these compositional elements, five factors were considered: themes, types of tonal organization, special compositional techniques, formal types, and pianistic style. Except for the latter, these are documented in the tables of Appendix 1. The six analyses that follow seem to satisfy the requirement of demonstrating this wide range of compositional styles. They are:

Analysis 1: Regard de l'étoile (No. 2)
Analysis 2: $\quad$ Regard du temps (No. 9)
Analysis 3: Première communion de la Vierge (No. 11)
Analysis 4: $\quad$ Noël (No. 13)
Analysis 5: Le baiser de l'Enfant-Jésus (No. 15)
Analysis 6: Regard des prophètes, des bergers et des Mages (No. 16)

In most cases, sections of the score pertaining to the analyses have been reproduced as examples, with bar numbers supplied. Consequently, normal bar number citations will be used as a rule, leaving only those bars not found in the examples with the trinomial referent in curly braces otherwise adopted.

## ANALYSIS $\mathrm{N}^{\circ} 1$

REGARD DE L'ÉTOILE (No. 2)

The second piece of the Vingt Regards provides contrast to the first, Regard du Père, in almost every respect: length, tonality, themes used, sense of tempo, texture, register, dynamics, and so on. In this sense it serves to complement the first and to help establish the scope of the work as a whole from the outset. Its primary role is, of course, to introduce the second of the cycle's principal themes, the thème de l'étoile et de la Croix-creating obvious thematic ties with No. 7, Regard de la Croix. Along with this theme the piece presents a total of eight new motifs (example 71), four of which establish subtle motivic ties with No. 9, Regard du temps. After pieces No. 2 and 7, the thème de l'étoile et de la Croix is not heard again. ${ }^{127}$

The overall form is very simple, being a symmetrical alternation of two elements, A (refrain) and B (thematic statement), as follows:

## ABAB'A_c

## "A" section

Messiaen's inscription beneath the title reads, "The shock of grace... the star shines guilelessly, surmounted by a cross." In an unusually clear example of "tone-painting," Messiaen translated these three images into three musical motifs (a-c), each occupying one bar of the score, and recurring as a group (the A sections) three times over the course of the piece. ${ }^{128}$

[^60]128 While it is tempting-and perhaps not unjustified-to see number symbolism every time Messiaen uses threes structurally, it should be remembered that phrasing in threes is a melodic constant in virtually all common-practice music from Bach to Brahms. Nonetheless, in the present work, the "three-in-one" symbolism is pervasive and convincing.

## Ex. 71 Motivic structure in Regard de l'étoile (No. 2), mm. 23-41.

The main formal divisions are shown uppercase and circled.
Strands of the thème de l'étoile et de la Croix are designated $\mathrm{B}_{1}, \mathrm{~B}_{2}$, etc.
Motifs are shown lowercase, $\mathrm{d}-\mathrm{g}$ are "tropes":
A sections: (a) rising sequential figure, mode $3^{2}$
(a') final trichord of motif "a"
(b) shimmering atonal haze
(c) ff chords "cloches" and "accords de carillon"
$B^{\prime}$ section: (d) rising $A^{b}$ minor arpeggio
(d') descending dissonant chords
(e) "motif \#270"
(f) series of chords in fourths
(g) pedal group

Coda: (h) "Noël motif"

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Ex. 71 Motivic structure in Regard de l'étoile (No. 2), continued.

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The A section serves as a fixed refrain, articulating the two statements of the thème de l'étoile et de la Croix three times with no variation whatsoever. It contrasts strongly with the $B$ sections by its brevity, wide range of dynamics ( $p p p$ to $f f$ ), thicker texture, marked contrasts of register, and plurality of constituent motifs. These motifs are:
(a) a rising sequential figure in mode $3^{2}$, capped with a trichord (a') that supplies the missing notes of that mode (mm. $1,18,35$ );
(b) a shimmering atonal haze, played $p p p$ (mm. 2, 19, 36);
(c) a series of $f f$ chords marked "comme des cloches" presenting the accords de carillon (mm. 3-5, 20-22, 37-39).

Motif "a", a loud opening gesture of the "Mannheim rocket" variety spanning five of the piano's seven octaves, consists of three transpositions of an arpeggiated tetrachord $D^{b}-E-G-C,{ }^{129}$ plus a final trichord "a'," the augmented triad $\mathrm{D}-\mathrm{F} \#-\mathrm{B}^{\mathrm{b}}$. The twelve beamed notes of the tetrachord transpositions all belong to mode $3^{2}$, and thus lack three pitch-classes for an aggregate-the very three that are supplied by "a'" as an accented simultaneity in the top register of the piano. In this way Messiaen integrates his modal structures with dodecaphonic atonality. ${ }^{130}$

After this dramatic opening gesture-the "choc de la grâce"-motif "b" comes as a surprise, its twinkling, shimmering $p p p$ dissonances representing the star of the title. Its two similar lines converge slightly, their intervals diminishing as they proceed, all in the top half of the instrument's register.

129 (0147) in set notation.
${ }^{130}$ This is also a typical gesture; see chapter 1, "Cadential splash of color," pp. 30-31.

This measure is also atonal, again forming an aggregate, but not organized by any particular mode or pattern.

The third motif " $c$ " makes for a certain symmetry in the " $A$ " section as a whole, its exploitation of the bottom half of the keyboard counterbalancing the "b" motif's register, and its series of $f f$ chords in falling leaps balancing the rising arpeggio of " a ". The chords of this motif are, in fact, the accords $d e$ carillon, and this constitutes their first appearance in the Vingt Regards. The three accented bell-strokes are answered by crashes in the bass, providing "effects of resonance." ${ }^{131}$

## "B" sections

These provide the basic thematic material of the piece in the form of two statements of the thème de l'étoile et de la Croix. ${ }^{132}$ The first is a stark, unaccompanied unison statement in two voices separated by four octaves, uniformly piano in dynamic level. It unfolds in six strands (three pairs), $\mathrm{B}_{1}, \mathrm{~B}_{2}$, etc., each ending with a long, fermata-like pause on the final note. ${ }^{133}$ The second presents registral, dynamic and textural differences in the theme itself,

131 "Paul Dukas often spoke of 'effects of resonance.' Effects of pure fantasy, similar by a very distant analogy to the phenomenon of natural resonance." (Messiaen, Technique, 51). Messiaen gives examples of both "superior" [higher] and "inferior" lower] resonance.

The third left-hand crash in this instance is not simply another effect of resonance; it is the fourth chord of the accords de carillon series. Moreover, the third bell-stroke (mm. 5, 22, 39) is a chord in fourths and can itself be seen as the upper "resonant" part of a chord of resonance whose fundamental harmony (a $\mathrm{C} \#$ dominant-seventh chord) is provided in the final low chord.

132 The thème de l'étoile et de la Croix will only be heard once again (in No. 7, Regard de la Croix), on which occasion it is "troped" to the point of complete saturation. In No. 7 the troping occurs in 16 th-note values between each separate note of the theme (giving a musical effect reminiscent of the opening prelude in César Franck's Prelude, Chorale and Fugue, 1886). In this case Messiaen seems to have used the organum models of Leonin and Perotin, where new rhythmically-measured material is added above an original cantus firmus which is written in long, sustained, essentially arhythmic values.
${ }^{133}$ The plainchant-like nature of this theme, as well as other details of its structure, were discussed in chapter 2, pp. 57-61.
but another feature also commands our attention, for each of the six cadential pauses in the theme is now "troped" with new motivic fragments. These tropes are four in number, designated d-g in the following discussion (and ex. 72).

The repetition of the theme itself in $\mathrm{B}^{\prime}$ ( $\mathrm{mm} .23-34$ ) uses the same notes and rhythmic values as in B , but changes the dynamic level from piano to forte, and states the theme in a single voice at the middle of the keyboard, half way between the original two voices. The four new "trope" motifs are inserted into the spaces left by the half-note "fermatas" that end each of the six strands of the theme, and are distinguished from the theme by (among other things) their $p$ and $p p$ dynamic markings.

The first of these new motifs, " $d$ "-a rising $A^{b}$ minor arpeggiated chord terminating in a pair of peculiar downward-turning dissonant chords, "d' "-has a certain resemblance to the opening gesture " $a$ "; they share the two features of rising arpeggios and separate terminal elements. In " $a$ " the terminal gesture is a trichord, $D-F \#-B^{b}$, whereas in " $d$ ' " it takes the form of six pitch-classes divided into two chords, $\mathrm{D}-\mathrm{F} \#-\mathrm{C} \# / \mathrm{D}-\mathrm{A}-\mathrm{B}^{\mathrm{b}}-\mathrm{G} \#$. The latter not only contain " a " " as a subset, but belong entirely to mode $3^{3}$ (whose roots are $\mathrm{D}, \mathrm{F} \#$, or $\mathrm{B}^{\mathrm{b}}$ ) —the same mode, but in different transposition, as "a": mode $3^{2}$. Moreover, motif " d " " is a rewriting of the first two chords of the four-chord sequence " y " found again in No. 9, Regard du Temps, and No. 11, Première communion de la Vierge.

The second new motif, "e," is a repeated interjection of "motif \#270," while the third element " $f$ " is a series of parallel four-note chords in fourths containing tetrachords "a" and "b" of the thème d'accords, and in whose upper two voices a pentatonic collection (emphasizing enharmonically the tonality of $A^{b}$ minor: G\#-B-C\#-D\#-F\#) can be seen. Its first three melodic pitches also seem to echo canonically the first three notes of strand two, just as motif " $g$ " echoes the
melodic shape of strand six. Example 72 illustrates the association and similarities of these elements. (See also pp. 55-56 and Analysis $\mathrm{N}^{\circ} 2$.)

The fourth new motif, "g," is a pedal group which begins immediately with the last of the six strands of the theme quasi-canonically, instead of waiting for the final held note, as did tropes "d," "e," and "f." It has several interesting features, three of which might be pointed out. First, if one separates the pattern into pitch collections on the basis of register, three parallel levels emerge. The highest, containing the single pitch $\mathrm{D}^{\mathrm{b}}$, and the lowest, containing the pitches A and G, are played as single pitch-classes, while the middle layer consists uniquely of whole-tone dyads: $\mathrm{D}^{\mathrm{b}} / \mathrm{E}^{\mathrm{b}}, \mathrm{C} / \mathrm{D}$, and $\mathrm{G}^{\mathrm{b}} / \mathrm{A}^{\mathrm{b}} .{ }^{134}$

Second, the total pitch-class content of the pedal group shows another symmetry: a lower group of four white notes (G-A-C-D), and an upper group of four black notes, ( $\left.\mathrm{D}^{\mathrm{b}}-\mathrm{E}^{\mathrm{b}}-\mathrm{G}^{\mathrm{b}}-\mathrm{A}^{\mathrm{b}}\right)$. The two tetrachords are tritone transpositions of each other, and the whole set comprises mode $4^{2}$.

Third, the repeating melodic pattern of the pedal group is created by joining two inversionally related groups of four notes or dyads into an eightmember string, as shown in example 73.

## Coda

The last two bars of the piece comprise a short coda fashioned from the sixth strand of B. The coda itself is troped with new material: the "Noël motif," heard now for the first time in the cycle. It is introduced $p p p$ at the very end of the piece, almost as an afterthought. Heard in this way for the first time, it gives no clue as to its future importance in the cycle.

[^61]Ex. 72 Association of the Thème d'Accords, Thème de l'Etoile et de la Croix, motifs " $d$ ', " "e," "f," and the 4-chord sequence " $y$ " in three Regards.
(a.) In No. 2, Regard de l'étoile (7-1-1).

(b.) In No. 9, Regard du temps \{55-1-1\} and \{55-3-4\}.

(c.) In No. 11, Première communion de la Vierge \{81-2-3\}.

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## Ex. 73 Inversional symmetry in pedal group, No. 2, Regard de l'étoile. (Motif "g," mm. 33-34)


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Three further points warrant brief discussion here: tonality, motivic connections between the principal theme and its trope material, and symbolism.

As discussed in chapter 2, the thème de l'étoile et de la Croix has an inherent $\mathrm{A}^{\mathrm{b}}$ minor tonality, but this is more readily apparent in No. 2, Regard de l'étoile, than in No. 7, Regard de la Croix, for two reasons. The first is both textural and tempo-related. The simple, unadorned presentation of the theme in No. 2 exposes the tonal organization ( $\mathrm{A}^{\mathrm{b}}$ centricity) of the melodic line and its six cadential notes, while the "moderate" tempo is more conducive to the perception of the series of pitches as a melodic line than is the very slow speed of the quarter-note theme (quarter-note=20) in No. 7. Together these create a more readily intelligible melodic and tonal structure. The second reason is even simpler: the very first trope, thrice repeated, consists largely of a straightforward $\mathrm{A}^{\mathrm{b}}$ minor arpeggio. In contrast, the only clear tonicizing agent in No. 7 is an $\mathrm{A}^{\mathrm{b}}$ minor chord with an added sixth ( $\mathrm{A}^{\mathrm{b}}-\mathrm{C}^{\mathrm{b}}-\mathrm{E}^{\mathrm{b}}-\mathrm{F}-\mathrm{A}^{\mathrm{b}}$ ) repeated periodically at cadences, the $A^{b}$ centricity of the theme being effectively obscured by the dense accompaniment and extremely slow tempo.

A closer look at the trope motifs will reveal certain melodic connections with the lines in which they are embedded. The first strand, for example, ends (mm. 23-24) with a leap up from tonic to dominant ( $\mathrm{A}^{\mathrm{b}}-\mathrm{D}-\mathrm{E}^{\mathrm{b}}$ ), and this finds an echo in the upward striding broken chord of motif " $d$ " which begins $A^{b}-C^{b}-E^{b}$ in the top voice. The second strand begins with the falling pattern $C^{b}-B^{b}-G$, and is echoed by " f " with $\mathrm{C} \#-\mathrm{B}-\mathrm{G} \#$. The final strand begins with $\mathrm{G}-\mathrm{A}^{\mathrm{b}}-\mathrm{C}^{\mathrm{b}}$ in 8th-notes ( m .33 ), and is answered by " g " in what sounds like inexact canon at an 8th-note's distance: $\mathrm{G}-\mathrm{A}^{\mathrm{b}}-\mathrm{D}^{\mathrm{b}}$ (counting the highest note on each 8th-note beat; see ex. 73). The effect in this last example is intensified by the harmonies involved; the first two chords in the left-hand theme imply V -I (the dominant chord $E^{b}-G$ and the altered tonic chord $\left.A^{b}-E\right)$, just as the right-hand trope does when its $E^{b}-G-D^{b}$ moves to $A^{b}-G^{b}$.

Numerous examples of symbolism are found in this short piece aside from the obvious religious and liturgical associations of the theme itself and the frankly depictive "A" section material representing the star and the cross. Particularly striking is number symbolism based on 3 , examples of which are listed below:

1. Section "A," comprising three motifs, is repeated three times.
2. Motif "a" contains three transpositions of tetrachord (0147) and, as a mode 3 aggregate, lacks three pcs for a full (12-note) aggregate.
3. Motif "b" contains three rhythmically equal groups.
4. The bells of "c" strike three times.
5. The principal theme unfolds in three (two-part) members.
6. The pedal group " $g$ " is repeated thrice.
7. The "Noël motif" contains three chords (three notes per hand).

## ANALYSIS $\mathrm{N}^{\circ} 2$

## REGARD DU TEMPS (No.9)

The overall structural pattern of No. 9 is one of the utmost simplicity: two contrasting elements played in alternation, each repeated five times, with a short coda. This plan can be shown in the following fashion:

## AB AB AB AB AB_c

As the coda consists essentially of "A" material (plus a final twelve-tone splash), an unending, infinitely repeating form is suggested, and this feeling is reinforced by the static, repetitive nature of the musical material itself. "A" consists of a short, hypnotic chordal theme with limited range ( $21 / 2$ octaves) and limited dynamics (a constant $m f$ ), while " B " is a three-voice rhythmic canon where each voice has a different repertoire of three chords, the upper two voices using the "Noël motif" exclusively. ${ }^{135}$

Despite this large-scale simplicity of form, there are a number of interesting details that arise through the variations shown on the various repetitions of the A and B themes. These differences are set out in some detail below.

## " $\underline{\text { A" sections: }}$ rhythmic structure

The rhythmic structure of the "A" sections is fairly simple when viewed as an assemblage of basic cells based on the rhythm of bar 1. The initial component of this rhythm, the non-retrogradable cretic cell, forms the rhythmic basis for the primary variants "b" and "c," and is the sole basis of the rhythmic canons of the $B$ sections. Example 74 shows the rhythmic variants of the cretic cell, suggesting possible Sharngadeva interpretations as well (cf. ex. 11, p. 24).

[^62]
## Ex. 74 Rhythmic cells in "A" sections of No. 9, Regard du temps.

Bracketed rhythms show possible Sharngadeva interpretations based on:
\#58, dhenkî; \#101, simha; \#93, râgavardhana; and \#88, lakskmîça (see p. 24).
$\stackrel{\text { \# } 101}{\text { \#58 }}$
$a=\sqrt{\square}$


$$
c^{\prime \prime}=
$$

## "A" sections: harmonic structure

An analysis of A's chordal themes yields four short sequences. Three of them appear in the first two bars, while the appearance of the fourth is delayed until bar 12. These basic chordal units (i-iv), illustrated in example 75, are:
i. Four chords, being tetrachords "dcdc" of the thème d'accords, with a pedal-note $B$ in the soprano;
ii. The two chords of "motif \#270";
iii. The four-chord sequence " $y$ " (see ex. 72, p. 155);
iv. A variant of "iii" where a new chord replaces the first two of the " $y$ " sequence, resulting in a retrograde presentation of the first two chords of motif " f " (ex. 72, p. 155). These two chords contain tetrachords "ba" of the thème d'accords (thus incorporating that theme completely, in retrograde, over time).

Ex. 75 Beginning of No. 9, Regard du temps, (p. 55, mm. 1-12) showing the "A" section's chordal theme components. (Cf. ex. 72, p. 155)

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Example 76 illustrates in greater detail the relation between the theme d'accords and the chordal theme of the Regard du temps.

## Ex. 76 Relation between the Theme d'Accords and the chordal theme

 of No. 9, Regard du temps. (Page 55, mm. 1-2, 12, and the Thème d'Accords)

Note use of Thème d'Accords tetrachord $d$ and $c$, triad $a^{\prime}$, and characteristic alto voiceleading: G\# - F\# - F\# - G\# (second bracket).


Thème d'Accords tetrachord $a-d$ (triads $a^{\prime}$ and $b^{\prime}$ circled). Note alto voice-leading: G\# F\# - F\# - G\#.


Note use of Theme d'Accords tetrachord b and a, triads $\mathrm{b}^{\prime}$ and $\mathrm{a}^{\prime}$ prominent in r.h.
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The rhythmic and chordal elements of the "A" sections always appear in one of the three specific configurations shown in example 77 and identified as e, $e^{\prime}$, or $e^{" .}$ Parentheses "(iii)" denote abridged harmonic units consisting of the first and last chords only.

## Ex. 77 "A" section structure in No. 9, Regard du temps.

(a.) Fixed configurations of chordal and rhythmic elements.

|  | $\underline{\mathrm{e}}$ | $\mathrm{e}^{\prime}$ | $\mathrm{e}^{\prime \prime}$ |
| :---: | :---: | :---: | :---: |
| Chordal elements (ex. 75): | i ii iii | i ii (iii) | iv iv iv iv |
| Rhythmic cells (ex. 74): | a b c | a b c" | $a^{\prime} \quad c^{\prime} \quad c^{\prime} \quad a^{\prime \prime}$ |


" " sections: rhythmic structure
The three augmentations of the cretic (or dhenkî) cell used in the rhythmic canons are illustrated below, along with their exact sequence in the five "B" sections (ex. 78). The original cretic rhythm invariably follows each augmentation, and is represented in the example by asterisks. The "multiplication factor" is the number that multiplies the values of the original cell to the values of the particular augmentation, $\mathrm{i}-\mathrm{iv}$.

These details can now be incorporated into the preliminary formal sketch in order to show the overall expansion-contraction pattern of each $A B$ repetition not previously revealed. In the resulting example 79, the upper line retraces the form, the second line traces the "A" section composite structures from ex. 77 b , the third line the " B " section augmentation sequence from ex. 78 b , and the fourth line (D) the duration of each section in 16th-note values.

## Ex. 78 The cretic rhythm and its augmentations in the rhythmic canons of No. 9, Regard du temps.

(a.) The crètic cell and three augmentations.

Notation Multiplication factor Symbol
$i .0$
$1 \quad *$ (Original values)
ii. $d \quad d d$
4
3
3
iii. d. $\downarrow$
4
iv. $d_{d} d d d d$
5
5
(b.) Precise sequence of augmentations in " $B$ " sections.

| Form: | A B | A B | A B | A B | A B | coda |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mid$ | $\mid$ | $\mid$ | $\mid$ | $\mid$ |  |

Ex. 79 Detailed formal sketch of No. 9, Regard du temps.

| Form: | $\mathrm{A}-\mathrm{B}$ | $\mathrm{A}-\mathrm{B}$ | $\mathrm{A}-\mathrm{B}$ | $\mathrm{A}-\mathrm{B}$ | $\mathrm{A}-\mathrm{B}$ | coda |  |  |  |  |  |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathrm{A}:$ | e |  | $\mathrm{e}^{\prime}$ |  | $\mathrm{e}^{\prime \prime}$ |  | $\mathrm{ee}^{\prime}$ | $\mathrm{ee}^{\prime} \mathrm{e}^{\prime \prime}$ | $\mathrm{e}^{\prime \prime}$ |  |  |
| $\mathrm{B}:$ |  | $4^{*}$ |  | $3^{*}$ |  | $5^{*}$ |  | $4^{*} 3^{*} 5^{*}$ | $4^{*}$ |  |  |
| D: | 19 | 25 | 19 | 20 | 34 | 30 | 38 | 75 | 72 | 25 | 21 |

## "B" sections: pitch-class content

The pitch-class content of the " B " sections is very limited, allowing full attention to be paid to the rhythmic complexities. Each of the three voices participating in the rhythmic canon has a repertoire of three chords: the upper voice plays the three descending chords of the "Noell motif," the middle voice plays the three ascending chords of the same motif, and the lowest voice plays a sequence of three tritones from mode $6^{5}$. Number symbolism based on three is again evident here.

## ANALYSIS ${ }^{\circ} 3$ <br> PREMIÈRE COMMUNION DE LA VIERGE (No. 11)

Only one feature of Première communion de la Vierge will discussed here, and that is the process of rhythmic augmentation that forms the central portion of the piece, overlooked in the discussion in chapter 3 (pp. 90-91). This section, from $\{81-2-1\}$ to $\{82-5-3\}$ ( $\mathrm{mm} .43-72$ ), comprises thirty of the piece's eighty measures, and contains all of its atonal elements as well as the long dominant pedal which prepares the modified return to opening material at the close of the piece (see ex. 81). It constitutes the second episode, "C," in the piece's formal design, represented below (ex. 80).

## Ex. 80 Formal sketch of No. 11, Première communion de la Vierge.

\{77-1-1\} $\mathrm{A} \quad$ (Thème de Dieu, in $\mathrm{B}^{\mathrm{b}}$, mode $2^{2}$ )
\{78-4-3\} B (Episode: "Rappel de la Vierge et l'Enfant," mode 23)
\{79-1-2\} $A^{\prime} \quad$ ("Magnificat": 3 variations on the Thème de Dieu)
\{81-2-1\} $\quad \mathrm{C} \quad$ (Episode: atonal, process of rhythmic augmentation)
\{83-1-1\} $A^{\prime \prime} \quad$ (Coda-like return to opening material, mode $2^{2}$ )

This augmentation process actually consists of two passages separated by one bar (m. 52) of five chords played crescendo. The first passage is shorter and unmarked, while the second is longer and signalled in the score by the description, "[Rhythmic] values by twos, from 1-3 to 13-15."

Ex. 81 Rhythmic augmentation episode in No. 11, Première communion de la Vierge, mm. 43-72.


Passage $2 \ldots \rightarrow$

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Ex. 81 Rhythmic augmentation episode in No. 11. Première communion de la Vierge, mm. 43-72, continued.

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Passage 1 (mm. 47-51) contains five bars of two chords each. The second chord of each bar has a constant quarter-note value, while the first chords (with $s f$ accents) lengthen progressively in a series of durations: $2,3,5,7,11-$ (measured, as usual, in 16th-note values). The sequence of durations in passage 2 ( $\mathrm{mm} .53-72$ ) is illustrated in example 82 .

The chords in the first eight bars of the passage ( $\mathrm{mm} .53-60$ ) lengthen gradually without subdivision, giving the effect of a gradual slowing of tempo. From the ninth bar, however (m. 61, the point where the pattern changes from two chords per bar to one chord per bar with two-bar groupings), the duration of each chord is subdivided or measured by means of a repeated low F-a dominant pedal-representing "the heartbeats of the Child." ${ }^{136}$ As this pulse is steady, it becomes clear that the process is one of augmenting durations, not slowing tempo.

Although Messiaen indicates that the process goes "from 1-3 to 13-15," and actually marks the values from 9-11 to 13-15 in the score (ostensibly to help the performer keep track of the pattern), a case can be made for seeing a final $14-16$ completing the pattern, as illustrated in example 82. Even though the expected 14 is reduced to 4 ( m .71 ), its effect is given significant added weight by the fact that the bar contains no notes-only a sudden, absolute and unprecedented silence. The final 16 is, in fact, present, and accords with the composer's usual pattern of rhythmic processes that go from 1 to 16 (or viceversa). ${ }^{137}$

[^63]
## Ex. 82 Augmentation values, mm. 53-72, in No. 11, Première communion de la Vierge. (Durations measured in 16th-notes)

| $\underline{\text { Bar }}$ | $\underline{\text { Durations }}$ |  | $\underline{\text { Bars }}$ |
| :--- | :--- | :--- | :--- |
| $53:$ | $1-3$ | $60:$ | $\underline{\text { Durations }}$ |
| $54:$ | $2-4$ | $61-62:$ | $9-11$ |
| $55:$ | $3-5$ | $63-64:$ | $10-12$ |
| $56:$ | $4-6$ | $65-66:$ | $11-13$ |
| $57:$ | $5-7$ | $67-68:$ | $12-14$ |
| $58:$ | $6-8$ | $69-70:$ | $13-15$ |
| $59:$ | $7-9$ | $71-72:$ | $[4]^{*}-16$ |

* The quarter-rest in m. 71 is inconsistent with the series.

ANALYSIS $\mathrm{N}^{\mathrm{o}} 4$
NOËL (No. 13)

The form of the thirteenth Regard, a straightforward ternary piece, is illustrated in example 83 below. In the example, the top line represents the principal formal divisions, the second line the subdivisions, the third the duration (in bars) of each subsection, and the bottom line the initial bar number of each subdivision. Parentheses indicate substantial alteration-usually abbre-viation-and asterisks represent bars of rest separating the subdivisions of the " B " section.

## Ex. 83 Formal sketch of No. 13, Noël.

| Form: | A |  |  | B |  |  |  | $\mathbf{A}^{\prime}$ |  |  | coda |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Subdivisions: | a | b | a | c-c |  |  | (d/c) | (a | b | a) | (c | a) |
| Durations: | 7 | 13 | 5 | 9* | $5 *$ | 5 | 5 | 5 | 7 | 12 | 3 | 1 |
| Bar numbers: | 1 | 8 | 21 | 26 | 36 | 42 | 48 | 53 | 58 | 65 | 77 | 80 |

The two principal sections provide numerous contrasts. Whereas the "A" sections show clear ternary subdivisions with two distinct thematic elements ("a" sections feature bells in ostinato patterns, the "b" sections have xylophone improvisation and a fragmented thème d'accords in ostinato), " B " is developmental, subdivided into two less clearly differentiated ideas (c and d) that are separate at first, but become more fragmented, varied and intermingled as the music progresses. " B " also contrasts with " A " in tempo, character, dynamic, rhythm, modality and thematic material. The following discussion briefly
examines some of the details of the more complex central episode, $B$ (ex. 85).
A strong unifying feature of the B section is its underlying rhythmic pedal, four bars in length, varied slightly during the course of its five repetitions. The rhythmic variants of the pedal are set out in example 84 . Note the non-retrogradable rhythm of its second bar, the varying length of the final notes, the diverse subdivisions of the basic long values, and the breakdown of the pattern in the final phrase in favor of repeated use of the initial motive, (bracketed).

## Ex. 84 Rhythmic pedal in the "B" section of No. 13, Noël.



Two basic thematic elements (c and d) are used in alternation in the " $B$ " section, following the pattern:

$$
\mathrm{cc}^{*} \mathrm{~d}{ }^{*} \mathrm{c}^{*} \mathrm{~d} / \mathrm{c}
$$

Although there are five thematic statements, the first two are fused together into one segment (cc). Each of the resulting four phrases is separated by a bar
of silence (equalling three beats), shown by an asterisk. The final phrase shows rapid alternation of " $c$ " and " $d$ " elements in a fragmented motivic style, symbolized by the conjunctive slash.

The first element, "c," begins with a four-note motive-recalling both the "Nöel motif" and the first four notes of the thème de Dieu-and is firmly rooted in an apparent $C / A^{b}$ bitonality generated by exclusive use of mode 3 . It features voicings in parallel thirds, voice exchanges, and a rapid rising and falling figure that immediately precedes the final closing gesture: a low $\mathrm{D}-\mathrm{C}-\mathrm{B}^{\mathrm{b}}$ motif in left-hand octaves that is, as has been noted, a version of the "Nöel motif" itself. (These final octaves are missing in the first " $c$ " segment to permit a seamless joining of the two statements.)

The "d" theme is a collage of four elements (two pairs) and three modes that contrast with the homogeneity of "c." First comes a variant of the Boris motif (or recollection of the Vierge et l'Enfant theme) in the lower two staves, set in mode $2^{2}$ and accompanied by descending $p p$ triads in mode $3^{4}$. Thereafter follow two bars of contrary-motion triads in mode $3^{2}$, again in the lower two staves, set against a static, quietly tolling bell formed of the pitches D-C-Bb: the "Nöel motif" in chordal form.

Note that the second "d" element has contrary-motion movement in common with the first, where the Boris motif (bottom two staves) rises and the accompaniment (upper staff) falls. The upper-staff ostinato chord (the "Noël motif") also interacts in other ways with the surrounding music: it supplies two of the three pitch-classes "missing" from mode $3^{2}$ (D, F\# and B").

Ex. 85 Central episode ("B" section) of No. 13, Noël, mm. 26-52.

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Ex. 85 Central episode ("B" section) of No. 13, Noël, mm. 26-52, continued.

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## ANALYSIS N ${ }^{\circ} 5$

## LE BAISER DE L'ENFANT-JÉSUS (No. 15)

Having already examined the piece as a whole (pp. 92-98), we shall study only one six-bar section here: mm. 73-78. This central, dissonant portion of the climactic second section of the piece is one of only two brief departures from mode 2 in the piece. It is a complex of three contrasting elements "a," "b," and "c," which unfold in short installments. Example 86 reproduces the passage, highlighting these three elements in its first bar (m. 73).

Element "a" consists of typical mode 2 chords grouped in threes (right hand, middle staff) ascending above a $\mathrm{C}^{\#}$ pedal (left hand, bottom staff), occurring at the beginning of each of the first five bars.

Element "b" comprises various three-chord interjections (four chords if the initial "grace-note" chord is counted separately) including the thème d'accords, accords de carillon, chords of resonance, and chords on the dominant (bottom two staves following element " $a$ " in the first four bars, and all but the last three chords of m. 78).

Element "c" is a descending chromatic line consisting of dyads of a major second, played simultaneously with element "b" (upper staff, first four bars, and last three chords of m .78 ).

This initial pattern is subjected to an evolving process typical of the composer, one not unlike the process of asymmetrical expansion. The separate strands evolve in this way.

The "a" strand in the right hand forms one continuous ascending progression (interrupted in time, but with no chord gaps) that culminates at the end of the fifth bar (m. 77) on a high $\mathrm{C}^{\#}$. After four bars of interrupted three-chord
statements (twelve chords in all), the " a " strand forms an unbroken stream,
 starting with the same voicing as the right-hand series did, but moving down in contrary motion for the duration of bar 77-twelve more chords.

The " b " strand stays fixed in the central region of the keyboard, its final chord lengthening on each occurrence by one 16th-note to accommodate the steadily expanding " c " sequence. Each bar provides one characteristic chordal interjection: the thème d'accords (m. 73), accords de carillon (m. 74), chords of resonance (m. 75), and chords on the dominant (m. 76)-all of them featuring the pitch class $C^{\#}$ prominently. Bar 78 then restates eight chords (in different voicings, at a slower tempo, and ff): chords of resonance, the thème d'accords, and the accords de carillon.

The "c" strand's expanding sequence presents a nearly unbroken chromatically descending series heard at the end of each bar (except the fifth, m. 77, which contains exclusively " a " strand chords). Rhythmically it has three dyads on its first appearance, then four, then five, and finally six, presented as an initial group of two followed by a sixteenth-rest and the remaining dyads, shown schematically in this way:

$$
2+1, \quad 2+2,2+3,2+4
$$

In terms of pitch content, the series has only two gaps: bar 73 is lacking the F\#/G\# dyad, and bar 75 lacks $\mathrm{B}^{\mathrm{b}} / \mathrm{C}$. Presumably these gaps are a pragmatic compromise, in that they occur during the sixteenth-rest hiatus (as if their places were being held in their absence), and in that they are covered by louder " b " strand chords containing at least one of the missing pitches at its proper octave level. Like "a" and " b " before it, this strand is subjected to significant
transformation in its final statement as the three last chords of bar 78.
Messiaen's alterations in this final bar (m. 78) lend a transitional nature to the material, helping bridge this section to the next (see last bar, m. 79 in ex. 86) in three ways. First, the previously interrupted 16th-note values are now presented as an unbroken series of accented 8th-notes, rhythmically blending the " c " strand chords with the " b " series, and helping establish the new tempo's accented quarter-notes (whose speed will roughly equal the " $c$ " strand's final 8th-notes played Rall. molto).

Ex. 86 Dissonant central portion of "Le jardin".
From Le baiser de l'Enfant-Jésus (No. 15), mm. 73-78.

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Second, the texture is thickened with near-octave doublings in the right hand, and by the addition of their inversion in the left hand (in much the same way as strand "a" was treated in the previous bar), establishing an upward chromatic movement (in contrary motion to the original descending dyads) and a clustered chromatic sonority that will characterize the following section.

Third, the passage began with strongly accented $C^{\#}$ S (the "dominant"
pitch-class), and ends by converging on $C^{\#}$ s, played with a ff accent in the thumbs of each hand, thus reinforcing the underlying dominant function (despite the atonal chaos of the "b" strand chordal interjections) and reestablishing that pitch-class as the starting point for the subsequent phrase.

## ANALYSIS ${ }^{\circ} 6$ <br> REGARD DES PROPHÈTES, DES BERGERS ET DES MAGES

(No. 16)

Of particular interest in No. 16 is the use of purely rhythmic processes to open and close the piece: "valeurs progressivement accélérées" and "valeurs progressivement ralenties" respectively (progressively accelerating and progressively slowing series).

In the first 17 bars we hear a series of thunderous left-hand crashes that explode with steadily increasing frequency (played against a right-hand ostinato in steady 8th-notes that allows the listener to measure time precisely). In fact, the durations of these left-hand chords are progressively decreasing, going by increments of one 16 th-note at a time, from sixteen (16th-note values) to one. The process reaches completion at the end of the seventeenth bar, at which point Messiaen stabilizes the music by adding four bars of steady 16 thnotes against the 8th-notes in the right hand (ex. 87).

This process is repeated in reverse at the end of the piece, again taking exactly seventeen bars to move from one to sixteen (16th-note values), beginning at $\{126-5-3\}$. The same pitches are used, and the texture is not inverted. A five-bar coda concludes the piece.

It is significant that the composer provided steady 8 th-notes to accompany these two processes; such is not always the case. For example, in the Regard de l'Onction terrible (No. 18) these processes are used simultaneously, with no steady background pulse to provide a temporal frame of reference. In the latter piece Messiaen again uses these self-contained rhythmic processes to frame the whole, without allowing their ideas to influence the rest of the
musical material. ${ }^{138}$
Enclosed between the two rhythmic process sections is a highly unified form that could be represented in simplified fashion as ABA'. In this scheme the A section is based on the principal theme of five notes/five pitch-classes first introduced by the "oboe" at bar 22, and the B section is based on a closely related motif of four notes/three pitch-classes played marcato and accompanied by an angular, quirky countersubject at bar 36. In fact, the melodic elements of the whole piece, including the ostinato of the rhythmic processes, is based on these two ideas. ${ }^{139}$ The following discussion will describe these two fundamental and related ideas, and trace their use throughout the piece.

After the rhythmic process of the opening comes a sudden, striking change, for at bar 22 we are confronted by a highly repetitive, monophonic melody based on five principal pitches played one at a time-C, B, A (white notes, right hand) and $D^{\#}, C^{\#}$ (black notes, left hand). ${ }^{140}$ The passage is to be

138 There is an additional pitch element in No. 18 though, absent in the ostinatos of No. 16, consisting of steady chromatic transposition of the three-note "chords in fourths" of each hand. The slowing (lengthening) values descend chromatically, while the accelerating (shortening) values rise chromatically. Although the 16th-note incremental progession of the series is identical to that found in No. 16 (i.e. 1-16 and 16-1), the process is two bars longer in this case due to two bars of steady 16 th-notes added on to the 'fast' end of the series.

There is another dimension encoded into these complex processes heard in No. 18, in that Messiaen has allowed us to "hear" durations through pitch, or perceive pitch through durations. This appropriation of the perception of one element by another recalls the composer's synæsthesia, whereby his senses of sonority and color were intertwined: Messiaen "heard" colors and "saw" sonorities.

Another instance of the compositional exploitation of the equivalence of speed and pitch (literally and psychologically) bearing a certain resemblance to the simultaneous processes of No. 18 will be found in Conlon Nancarrow's Study \#21 ("Canon X") for player piano (ca. 1955)-unplayable by human hands, but punched mechanically intó player piano rolls-where extremely fast, high notes gradually slow down and drop in pitch, while extremely slow, low notes gradually speed up and rise in pitch. They merge momentarily in a central register and at the same speed before separating and eventually exchanging places.

139 The pitch-classes of motif " $b$ " $[9,0,1]$ form a subset of motif " $a$ " $9,11,0,1,3]$, and its rising and falling motion (short rise, return to original level, longer fall) is echoed in the melodic shape of the right hand ostinato figure of the rhythmic process sections.

140 The D natural grace note in the right hand is treated as an unessential tone.

Ex. 87 Opening of No. 16, Regard des prophètes, des bergers et des Mages. (Pp. 122-23, mm. 1-36)

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Ex. 87 Opening of No. 16, Regard des prophètes...., continued. (Pp. 122-23, mm. 1-36)

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played $f$, as if by an oboe [Hautbois] and a little shrilly [un peu criard]. The extremely thin texture of the initial presentation of this motif is never repeated in No. 16, nor does it have its equal elsewhere in the Vingt Regards.

This starkly monophonic but strangely hypnotic presentation of the motif is followed by six bars that not only expand its harmonic and textural resources but add two new elements unrelated to motif "a." The motif is harmonized in the first two bars (mm. 30-31; the motif is seen in the accented long notes of the right hand) and presented linearly in two others, bars 33 and 35. In the first instance the five pitch-classes are given out as a rising arpeggio which falls back on itself in retrograde (without repeating at the end its first pitch, C). In the second case the first four pitch-classes are simply played in accented ff octaves, without the final C\#. The two intervening bars contain new material, the first birdlike in nature (m. 32, compare to \{49-3-1\} and \{101-3-1\}) and the second comprising two unrelated chords (m. 34).

Section "B" begins at bar 35 with motif " $b$ " presented as an unrelenting ostinato in the right hand, accompanied in the left by a much busier countersubject. The resulting two-voice counterpoint continues for five uninterrupted repetitions of motif " $b$, " the last of which incorporates a cadence of sorts $\{124-$ 1-3: 2 bars \}.

At this point the $B$ section appears to repeat itself, but the repetition is varied and elaborated by the use of a third canonic voice (the countersubject echoed canonically an octave below and at an 8th-note's distance from the original) and by the insertion of new melodic fragments at \{124-3-1: 2 bars $\}$ and \{125-1-1: 5 bars\}. Due to the presence of the added material, this section, $\mathrm{B}^{\prime}$, is longer than the first. Nevertheless it still spans exactly five repetitions of motif " $b$," just a B did. As was also the case in the first B section, the final
motivic repetition is altered-here in four ways: (1) by the use of new accompanimental material, (2) through the cessation of canonic activity, (3) by the addition of a densely chromatic presentation of motif " $b$ ", and (4) with a final cadence $\{125-4-1\}$ embellished by chords reminiscent of those in bar 34.

The chromatic presentation of motif "b" at \{125-3-2\} constitutes the climax of the piece, rising to the highest dynamic level of the central sections (fff), doubling the motif in the top and bottom (of four) voices, and crowding four repetitions of the motif into a single bar (ex. 88).

## Ex. 88 Climax of central section, No. 16, Regard des prophètes, des bergers

 et des Mages, \{125-3-2\}.
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Given the preceding facts, a more accurate representation of the form of No. 16 would be:

$$
\mathrm{X} \text { A B } \mathrm{B}^{\prime} \mathrm{A}^{\prime} \mathrm{X}^{\prime} \_c
$$

Although combining the two $B$ sections into a single " $B$ " does not seem to be an unreasonable simplification, this more detailed sketch does show a slightly different aspect to the formal symmetry of the piece, in that the first three units are integrally mirrored by the final three (disregarding the typically brief coda). The arch form of the "XABA'X_c" model shows symmetry revolv-
ing around a central block-a block that can be, but is not necessarily divisible symmetrically.

A' differs significantly from A in two important ways. First, the "a" motif is harmonized in thirds (at least the first three notes, although the $\mathrm{D}^{\#}$ and $\mathrm{C}^{\#}$ remain single pitch-classes), and second, it is now accompanied by a left-hand ostinato in the form of motif "b." Motif "b" is now played " $f f$, énergique" (instead of " $f$, marcato") and is repeated once per bar for a total of nine times prior to six cadential bars \{126-2-2: 6 bars $\}$. The latter differ only slightly from the original ones in that the two linear versions of motif "a" discussed above (i.e. mm. 33 and 35) now have motif "b" superimposed on them (see \{126-3-3\} and \{126-4-1\}, the former's motif "b" lacking its initial pitch-class, C).

The final rhythmic process \{126-4-2: 21 bars\} reverses the direction of the original with its progressively slowing values. It is followed by a short five-bar coda consisting of three elements: A' material \{127-4-2: 3 bars\} whose "b" motif is itself harmonized (cf. \{125-4-3\} and \{126-3-3, r.h.\}); a new cadential bar containing a reference to the thème d'accords in its centre \{127-5-2\}; and a thunderous final statement of the " b " motif's last three notes, played $f f f$ and in contrary motion, that strides from the centre to the extremes of the keyboard.

## SUMMARY

Concluding his introductory remarks to the score of the Vingt Regards, Messiaen confides:

Plus que dans toutes mes précédentes œuvres, j'ai cherché ici un langage d'amour mystique, à la fois varié, puissant, et tendre, parfois brutal, aux ordonnances multicolores.
[Here, more than in any previous work, I have searched for a language of mystical love, simultaneously varied, powerful, and tender, sometimes brutal, with multi-colored arrangements. ${ }^{141}$

This description fits the work so aptly that there is little if anything that need be added. Instead, over the course of this paper I have tried to explore the nature of Messiaen's "language of mystical love" and to scrutinize the composer's "multi-colored arrangements." Three aspects of the music suggested paths of inquiry: harmonic-melodic techniques, rhythmic processes, and the general atmosphere created during performance. The first two are straight-forward-though not always simple-matters, and did much to explain the presence and meaning of the notes on the page. The last aspect, however, is a tremendously nebulous but no less essential category, and leads the searcher into the domains of color, texture and time.

The modes of limited transposition, along with a handful of special chords and melodic patterns, go a long way toward explaining why certain passages sound as they do. Certain modes have propensities toward one sonority or another, and I have attempted to explore and chart those patterns that emerged.

[^64]Rhythmic processes, and indeed rhythmic concerns in general, are as fundamental to Messiaen's music as his modes, and were a matter of utmost interest to him all his life. Rhythms in the Vingt Regards sometimes appear chaotic, but often they are the result of complex webs of overlapping rhythmic cycles and patterns-patterns that may be relatively simple individually.

Consequently, harmony, melody and rhythm become explainable elements in the cloth of the music and, once explained, can be perceived and understood by the listener. But the mood or atmosphere of the music and its effect on the listener, though directly perceptible, are infinitely more difficult to explain. Perhaps one of keys lies in a synæsthesia of sound and color unavailable to most of us. Messiaen wrote and spoke extensively about his music in terms of color (see note 56, p. 69), and his metaphors of stained glass windows, rainbows and the like are, I feel, appropriate and meaningful to many listeners.

Perhaps another key is the manipulation of our sense of time, exploited more systematically and, perhaps, extremely by Messiaen than by any earlier composer. His repetitive chords and melodies-and especially his prolonged use of extremely slow tempos-are hypnotic, and transport us into that altered state of consciousness engendered by all great music.

Yet at this point our explanatory powers diminish; we feel the sense of time (or timelessness), and experience the colors, but still are no closer to understanding what makes the music work. In the end, there is only the hope that the explanation of that which is knowable will lead us closer to the heart of that which is not, for there is much in Messiaen's music to move and enrich us.

The following remarks by Charles Rosen may help if not to provide answers, at least to suggest interesting questions and further areas of debate:

Mathematicians tell us that it is easy to invent mathematical theorems which are true, but that it is hard to find interesting ones. In analyzing music or writing its history, we meet the same difficulty, and it is compounded by another. For whom is it interesting? To paraphrase a famous remark of Barnett Newman, musicology is for musicians what ornithology is for the birds....

Music has its existence on the borderline between meaning and nonsense. That is why most attempts to attribute specific meaning to a piece of music seem to be beside the point-even when the attribution is authoritative, even when it is made by the composer himself. In Schumann's Carnaval, it is good to know that "Chiarina" is a portrait of the young Clara Weick, and it is not irrelevant to our appreciation of the work, but it is oddly difficult to define its pertinence to our understanding of the music. What appears to be full enjoyment of the work does not depend on knowing the reference. ${ }^{142}$

This leads us to the matter of Messiaen's own remarks about his music. The composer has left us with thorough explanations of his techniques, and many indications of his intentions both musical and spiritual, but there still remains much to "understand" in the music. Comments such as the following are, I feel, provocatively misleading in this regard:

The printed music [of the Vingt Regards] is liberally annotated with indications of mode, of appearances of cyclic themes, of rhythmic procedures and of techniques of intervallic change, almost to the extent of making any analysis of its construction redundant, especially when one takes into account also Messiaen's preface and his substantial programme notes. ${ }^{143}$

The Vingt Regards sur l'Enfant-Jésus exert a particular fascination because of the way they incorporate very different musical styles in one work,

[^65]and the exploration of these juxtapositions-to name just one field of inquiryholds no less potential for future analysts than does the music of past masters, whose works retain the ongoing interest of scholars to this day. With this in mind, I hope to have demonstrated over the course of this paper that the case made above by Mr. Griffiths is greatly overstated.

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## APPENDIX 1

Synoptic Tables Of Features In The
Vingt Regards Sur L'Enfant-Jésus

## KEY TO TABLES

These remarks are most pertinent to Table 1, but have a bearing on the others as well.

Under "Tonality" the following may be denoted:
(a.) A capital letter (e.g. "F\#") denotes a piece that is largely tonal. An asterisk $\left({ }^{*}\right)$ indicates the presence of the appropriate key signature.
(b.) Capital letters enclosed in brackets (e.g. "( $\left.\mathrm{B}^{\mathrm{b}}, \mathrm{D}\right)$ ") denote occasional tonal centers. Isolated tonal strands within an otherwise atonal texture will append three dots (e.g. "(F\#...)").
(c.) Lower case letters indicate focal pitch-classes, without traditional tonality. Two lower case letters joined by a slash (e.g. "c\#/eb") denote a pitch-class axis, again without traditional tonality.
(d.) A long dash (e.g. "-") implies atonality throughout the piece, with no focal pitch-class present.
"Themes" are abbreviated as shown below, the three principal themes designated by capitals, and the secondary themes and motifs taking lower case letters. Themes with demonstrable similarities or affinities are grouped together (and their symbols positioned in Table 1 for ready visual association). The Thème de l'Étoile et de la Croix has no associated motifs. The use of italics denotes a variant or questionable derivation. Numbers (e.g. "\#270") refer to examples from Messiaen's Technique, vol. 2.
Themes and motifs Abbreviation
THÈME DE DIEU ..... D
thème d'amour ..... a
thème de joie ..... j
thème du baiser ..... b
THÈME D'ACCORDS ..... A
accords de carillon (cloches) ..... c
"motif \#270" ..... m
THÈME DE L'ÉTOILE ET DE LA CROIX ..... E/C
style oiseau ..... o
Boris motif ..... x
"Noël motif" ..... n

Under "Form" the symbol "X" represents prelude/postlude material heard at the beginning and end of a piece without appearing elsewhere. A coda is designated by the symbol " c".

The "Techniques" column shows the use of certain typical compositional devices, represented by abbreviations explained below. The use of italics denotes an altered or derived form.

| a | asymmetrical expansion |
| :--- | :--- |
| $\mathrm{b} / \mathrm{w}$ | black-key/white-key sonorities |
| c | (rhythmic) canons |
| m | monophonic sections |
| nr | non-retrogradable rhythms |
| r | rhythmic processes (various) |
| v | variations |
| $\infty$ | "isorhythmic" use of tâlas 1 and/or 2 |
| $*$ | cadential splash of color |

TABLE 1: Synoptic Table of Features in the Vingt Regards

| \# | Title | Tonality | Themes |  | Form | Techniques |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Regard du Père | *F\# | D |  | unipartite, 2 strophes |  |
| 2 | Regard de l'étoile | ab | E/C | cm n | ABAB'A_c | b/w mrv * |
| 3 | L'échange | eb |  |  | one asymmetrical exp. cycle | ab/w * |
| 4 | Regard de la Vierge | c\#/eb |  | on | ABACABA_c | ab/w m * |
| 5 | Regard du Fils sur le Fils | (F\#...) | D | 0 | ABABAB ( A is "isorhythmic") | crvm |
| 6 | Par Lui tout a été fait | d\# (*F\#, Bb, D) | D A | a | fugue ( $\mathrm{A}^{*} \mathrm{~A}^{\prime} \mathrm{A}^{\prime \prime} \mathrm{B}$ ?) | acnrrvo * |
| 7 | Regard de la Croix | ab | E/C |  | unipartite, 6 phrases | m * |
| 8 | Regard des hauteurs | - |  | 0 | ABAC_c | b/w * |
| 9 | Regard du temps | - (g\#-?) | A | $m \quad \mathrm{n}$ | AB AB AB AB AB_c | cnrr * |
| 10 | Regard de l'Esprit de joie | *various, (*F\#) | D $\quad \mathrm{A}$ | aj | X A*BACA X_c | ab/wmrv * |
| 11 | Première communion de la Vierge | Bb | D $\quad A$ | ox | $\mathrm{ABA}^{\prime} \mathrm{CA}$ ( $\mathrm{A}^{\prime}=3$ variations) | $b / w r v$ |
| 12 | La parole toute puissante | d |  |  | unipartite, non sectional | b/w m nr r $\infty$ |
| 13 | Noël | - d\#/eb | A | xn | $\mathrm{ABA}^{\prime} \mathrm{c}$ ( $\mathrm{A}=\mathrm{aba}$ ) | nrrv * |
| 14 | Regard des Anges | - | A | cm 0 | $\mathrm{AA}^{\prime} \mathrm{A}^{\prime \prime} \mathrm{BB}^{\prime} \mathrm{B}^{\prime \prime} \mathrm{c}$ | $a \mathrm{~b} / \mathrm{w} \mathrm{c} \mathrm{m} \mathrm{v} \infty$ |
| 15 | Le baiser de l'Enfant-Jésus | *F\# | D A | b c | $\mathrm{ABCA}^{\prime}$ | criv |
| 16 | R... prophètes, bergers et Mages | a |  | $x$ ? | XABB'A'X'_c | b/wcmrv * |
| 17 | Regard du silence | - | A | m | X ABCDE ABCDE X' (X=m) | $b / w c \vee \infty$ |
| 18 | Regard de l'Onction terrible | - c\#? | A | cm | X(ab) ABAC ABAC X ${ }^{\text {(ba) }}$ | m r |
| 19 | Je dors, mais mon cœur veille | *F\#, (d\#-) | A | ab $\quad \mathrm{x}$ | ABCBA_c, or sonata form | $v$ |
| 20 | Regard de l'Église d'amour | various, *F\# | D A | $\mathrm{a} \quad \mathrm{cm} \quad \mathrm{o}$ | inverted sonata: $A B A^{\prime} C D D$ ? | ab/wnrrv * |

TABLE 2: Synoptic Table of Forms in the Vingt Regards

| \# | Title | Form |
| :---: | :---: | :---: |
| 1 | Regard du Père | Unipartite exposition of Thème de Dieu, in 2 strophes |
| 2 | Regard de l'étoile | ABAB'A_c (A=abc; B' theme is "troped"; coda based on B and "Noël motif") |
| 3 | L'échange | A single complete asymmetrical expansion cycle |
| 4 | Regard de la Vierge | ABACABA_c (arch or 'non-retrogradable' form; coda based on C) |
| 5 | Regard du Fils sur le Fils | ABABAB upper voices, over Thème de Dieu ( $\mathrm{A}=$ rhythmic canon $\infty$; $\mathrm{B}=$ oiseaux) |
| 6 | Par Lui tout a été fait | FUGUE: ABA'CD; (or) $\mathrm{A}^{*} \mathrm{~A}^{\prime} \mathrm{BC}$; (or) $\mathrm{A}^{*} \mathrm{~A}^{\prime} \mathrm{A}^{\prime \prime} \mathrm{B}$ |
| 7 | Regard de la Croix | Unipartite exposition of theme, 6 phrases cadencing on ab minor chords |
| 8 | Regard des hauteurs | ABAC_c ( $\mathrm{A}=\mathrm{abc}$ ) |
| 9 | Regard du temps | AB AB AB AB AB_c ( $\mathrm{B}=$ rhythmic canon on "Noël motif" and non-retro. rhythm) |
| 10 | Regard de l'Esprit de joie | X A*BACA X_c ( ${ }^{*}=$ asymmetrical expansion) |
| 11 | Première communion de la Vierge | $\mathrm{ABA}^{\prime} \mathrm{CA} \quad\left(\mathrm{A}=\right.$ slow theme, $\mathrm{A}^{\prime}=3$ lively variations) |
| 12 | La parole toute puissante | Continuous monody with percussion (unipartite, non sectional) |
| 13 | Noël | $\mathrm{ABA}^{\prime} \mathrm{c}^{\text {c }} \quad(\mathrm{A}=\mathrm{aba} ; ~ \mathrm{~B}=\mathrm{cdcd} / \mathrm{c}$; coda from $\mathrm{c}+\mathrm{a})$ |
| 14 | Regard des Anges | $\mathrm{AA}^{\prime} \mathrm{A}^{\prime \prime} \mathrm{BB}^{\prime} \mathrm{B}^{\prime \prime}$ _c |
| 15 | Le baiser de l'Enfant-Jésus | $\mathrm{ABCA}^{\prime}$ |
| 16 | Reg. des prophètes, bergers et Mages | XABB'A'X'_c |
| 17 | Regard du silence | X ABCDE ABCDE $\mathrm{X}^{\prime}$ (first $\mathrm{X}=\infty$ ) |
| 18 | Regard de l'Onction terrible | $\mathrm{X}(\mathrm{ab}) \mathrm{ABAC}$ ABAC X (ba) |
| 19 | Je dors, mais mon cœur veille | ABCBA_c (arch or 'non-retrogradable' form; possible sonata form) |
| 20 | Regard de l'Église d'amour | INVERTED SONATA: Dev./Exp./coda. (ABA'CDD; several asymmetrical expansions) |

## TABLE 3:

Themes in the Vingt Regards *

| THÈME DE DIEU | $1,5,6,10,11,15,20$ |
| ---: | :--- |
| thème d'amour | $6,10,19,20$ |
| thème de joie | 10 |
| thème du baiser | 15,19 |


| THÈME D'ACCORDS | $6,9,10,11,13,14,15,17,18,19,20$ |
| ---: | :--- |
| accords de carillon | $2,14,15,18,20$ |
| "motif \#270" | $2,9,14,17,18,20$ |

THÈME DE L'ÉTOILE ET DE LA CROIX 2,7
style oiseau $\quad 4,5,8,11,14,20$
Boris motif $11,13,16,19$
"Noël motif" $2,4,9,13$

* Numbers in the right-hand column denote pieces in which the various themes and motifs will be found.

TABLE 4:
Techniques in the Vingt Regards *

PITCH-CLASS
asymmetrical expansion $\quad 3,4,6,10,14,20$
black-key/white-key sonorities $\quad 2,3,4,8,10,11,12,14,16,17,20$

RHYTHMIC

$$
\begin{array}{rl}
\text { groups of very short/very long values } & 6,10 \\
\text { non-retrogradable rhythms } & 6,12,13,20 \\
\text { prog. accelerating/slowing series } & 6,9,11,15,16,18,20 \\
\text { rhythmic canons } & 5,6,9,14,15,16,17 \\
\text { rhythmic pedals } & 2,5,11,12,13,15,20 \\
\text { tâlas } 1 \text { and/or } 2 & 5,6,12,14,17
\end{array}
$$

OTHER

$$
\begin{array}{cl}
\text { cadential splash of color } & 2,3,4,6,7,8,9,10,13,16,20 \\
\text { monophony/heterophony } & 2,4,7,10,12,14,16,18
\end{array}
$$

* Numbers in the right-hand column denote pieces in which the various techniques will be found.

TABLE 5:
Forms in the Vingt Regards *

> | FORM AS DEFINED BY TYPES OF STRUCTURES |  |
| ---: | :--- |
| unipartite/monothematic | $1,3,7,12$ |
| simple: alternating ABC | $2,4,5,8,9,11,13,14,15,16,19$ |
| largely variational | $11,12,14$ |
| more complex: (up to) ABCDE and X | $10,17,18,20$ |
| "traditional" forms: fugue / sonata | 6,20 |
| variational aspects to sections | $2,5,6,10,11,13,15,17,19,20$ |
| NOT involving processes | $1,2,7,8,19$ |

FORM AS DEFINED BY NUMBER OF PARTS $\dagger$

| 1 part | $1,3,7,12$ |
| ---: | :--- |
| 2 parts | $2,5,9,13,14$ |
| 3 parts | $4,8,11,15,16,19$ |
| 4 parts | $10,18,20$ |
| 6 parts | 17 |
| other (fugue) | 6 |

* Numbers in the right-hand column denote pieces in which the various forms will be found.
$\dagger \quad$ Meaning the number of sections bearing different letter names, as opposed to actual number of sections generated by various repetitions.


## APPENDIX 2

## English Translations Of French Titles And Terms

## Used In The Vingt Regards

The following French terms and their English equivalents are divided into three sections: (1) titles of the work and its twenty pieces; (2) the themes that play an important part in the work; (3) various other technical or musical terms. Group 1 and the three principal themes of group 2 are presented in the order of their appearance in the preface to the score, while all others are by alphabetical order.

My purpose here has not been to translate every remark in the score, but to provide a convenient reference for non-French speakers approaching the score through this document. No translation has generally been provided for those cases where a direct English cognate to the French term exists, nor for common musical directions.

## TITLES

Vingt Regards sur l'Enfant-Jésus.
Twenty Contemplations of the Child Jesus ${ }^{144}$

1. Regard du Père. Contemplation of the Father
2. Regard de l'étoile. Contemplation of the Star
3. L'échange. The Exchange
4. Regard de la Vierge. Contemplation of the Virgin
5. Regard du Fils sur le Fils. The Son's Contemplation of the Son
6. Par Lui tout a été fait. By Him all hath been Made
7. Regard de la Croix. Contemplation of the Cross

[^66]8. Regard des hauteurs. Contemplation of the Heights
9. Regard du Temps. Contemplation of Time
10. Regard de l'Esprit de joie. Contemplation of the Spirit of Joy
11. Première communion de la Vierge. The First Communion of the Virgin
12. La parole toute puissante. The All-Powerful Word
13. Noël. Christmas (or Carol) ${ }^{145}$
14. Regard des Anges. Contemplation of the Angels
15. Le baiser de l'Enfant-Jésus. The Kiss of the Child Jesus
16. Regard des prophètes, des bergers et des Mages.
Contemplation of the Prophets, the Shepherds and the Wise Men
17. Regard du silence. Contemplation of Silence
18. Regard de l'Onction terrible. Contemplation of Awesome Unction ${ }^{146}$
19. Je dors, mais mon cœur veille. I sleep, but my heart keeps watch
20. Regard de l'Eglise d'amour. Contemplation of the Church of Love
THEMESThème de Dieu. Theme of God
Thème de l'Étoile et de la Croix. Theme of the Star and the Cross
Thème d'Accords. Theme of Chords
accords de carillon. carillon chords
${ }^{145}$ The word means both Christmas (the day) and Christmas carol (a song), and both meanings seem plausible. In his program notes, however, Messiaen says, "The first part of the piece is a carillon: they are the Christmas bells." (See Appendix 3.)

146 Refers to the sacred ritual blessing (in the CD reissue of Yvonne Loriod's original recording the title is unconvincingly translated as "Glance of the Blessing"), but Messiaen explains: "The Word puts on a human likeness through the flesh of Jesus having been chosen by the awesome Majesty. This is that unique, unheard-of, terrifying Unction of which Psalm 45 speaks." [Translated by Malcolm Troup and appearing in the liner notes to his recording of the Vingt Regards, Continuum CCD 1004/5, © 1988-see Appendix 3. The Loriod reissue is found on Ades 14.112-2.]
thème d'amour. theme of love
thème $d u$ baiser. theme of the kiss
thème de danse orientale et plain-chantesque.
oriental and plainchant-like dance theme
thème de joie. theme of joy

## VARIOUS TERMS

agrandissement asymétrique. asymmetrical expansion
alouette. lark
brouillé de pédale. blurred by the pedal
changé de rythme et de registres. with rhythmic and registral changes comme des cloches. like bells
comme des cors. like horns (i.e. musical instruments)
comme la foudre. like lightning (means both lightning and thunder)
comme un air de chasse. like a hunting song
comme un chant d'oiseaux. like birdsong
contre-sujet. counter-subject
en arc-en-ciel. as a rainbow
en gerbe rapide. as a rapid bouquet
enthousiasme haletant. breathless enthusiasm
fractionnement. fragmenting
groupes formant des valeurs très brèves et très longues.
groups forming very short and very long values
merle. thrush or blackbird ${ }^{147}$
modes à transpositions limitées. modes of limited transposition
147 Not specified on p. 53 of the score, but "blackbird" (merle noir) is specified in the composer's program notes (see Appendix 3).
par ajout du point. by the addition of the dot (refers to augmentation) percuté, comme un xylophone. struck, like a xylophone rappel de "La Vierge et l'Enfant". reprise of "The Virgin and the Child" rétrogradé et droit. backwards and forwards
rossignol. nightingale
roulement de tambour. drum roll
rythmes non rétrogradables. non-retrogradable rhythms
strette. stretto (in fugue)
(la) stupeur des anges s'agrandit. the stupeur of the angels increases sujet. subject (of a fugue)
valeurs de 2 en 2, de 1-3 à 13-15. values paired in twos, from 1-3 to 13-15 valeurs progressivement accélérées. progressively accelerating values valeurs progressivement ralenties. progressively slowing values

## APPENDIX 3

## Olivier Messiaen's Program Notes

To Michel Béroff's 1970 Recording Of The
Vingt Regards sur l'Enfant-Jésus

## PREFACE

In addition to the extensive "notes de l'auteur" provided in the preface to the score, Olivier Messiaen provided detailed additional commentary to accompany Michel Béroff's recording of the Vingt Regards (recorded in September and October of 1969 and released commercially in 1970): ${ }^{148}$

EMI "La Voix de son Maitre"
2C 065-10676/78 S

These additional notes, not generally available, contain much more compositional detail than the score, particularly in the analytical notes to each piece. In fact, the notes published in the score read like a highly abbreviated version of the later notes. Although there is some repetition in the two sources, the later notes are generally much fuller and more explicit in technical and analytical matters. They provide, as well, a valuable record of Messiaen's idiosyncratic sound-color associations, often describing in great detail the complex colors of individual strands and sections. The inherent value of these notes-as well as the difficulty of finding them-prompted me to reproduce them here. ${ }^{149}$

Of special interest is the discrepancy between the three cyclic themes of the score's preface and the four described in the later notes. It is not clear

148 These details of recording and production can be found in the notes to the EMI Pathé Marconi re-release in CD format (EMI CMS 7691612) of Messiaen's Vingt Regards sur l'Enfant-Jésus (along with the Préludes) of the original Béroff recording. The digital remastering is copyrighted 1987. The program notes to this re-release include Messiaen's five introductory paragraphs (in French, and in English translation by Elizabeth Carroll), but not the "succinct analysis of each piece" that made the original so useful.
${ }^{149}$ To my knowledge the complete French notes are not published anywhere else than as liner notes to this now unavailable LP, and Troupe's English translation (see note 146) is abridged.
why the composer chose at a later date to promote the incidental "thème d'amour" of the score to one of four principal themes, the "thème de l'amour mystique."

Messiaen's text is presented below unabridged and in the original French. (It was felt that an English translation was unnecessary, and would extend an already lengthy document.) The only editorial changes made to the text have been the breaking up of long paragraphs into their constituents (signalled by a preceding dot, •) and the substitution of North American quotation marks (and the rules of punctuation associated with them) for the European variety. A listing of pieces will thus appear, for example, in the second of the following styles:
a.) Original: «Regard du Père», «Regard du Fils sur le Fils », ...
b.) Edited: "Regard du Père," "Regard du Fils sur le Fils," ...

## OLIVIER MESSIAEN:

## Notes on the Vingt Regards sur l'Enfant-Jésus

Les "Vingt Regards sur l'Enfant-Jésus" ont été écrits en 1944.
Contemplation de l'Enfant-Dieu de la crèche et Regards qui se posent sur Lui: depuis le Regard indicible de Dieu le Père jusqu'au Regard multiple de l'Église d'amour, en passant par le Regard inouï de l'Esprit de joie, par le Regard si tendre de la Vierge, puis les Anges, des Mages, et des créatures immatérielles ou symboliques (le Temps, les Hauteurs, le Silence, l'Étoile, la Croix).

En dehors des thèmes particuliers à chacune des vingt pièces, quatre thèmes cycliques circulent à travers l'œuvre: a) le Thème de Dieu - b) le Thème de l'amour mystique - c) le Thème de l'Étoile et de la Croix - d) le Thème d'accords.

- Le Thème de Dieu se trouve dans les trois pièces dédiées aux trois personnes de la Sainte Trinité: "Regard du Père," "Regard du Fils sur le Fils," "Regard de l'Esprit de joie" - il se trouve encore dans "Par Lui tout a été fait" (puisque la Création est attribuée au Verbe sans qui rien n'a été fait) - il est présent dans "le Baiser de l'Enfant-Jésus" et dans "Première communion de la Vierge" (elle portait Jésus en elle), il est magnifié dans "Regard de l'Église d'amour" (l'Église et tous les croyants sont le corps du Christ).
- Le Thème de l'amour mystique revient dans "Par Lui tout a été fait," "Je dors, mais mon cœur veille," "Regard de l'Église d'amour."
- L'Étoile et la Croix ont le même thème parce que l'une ouvre et l'autre ferme la période terrestre de Jésus (voir "Regard de l'Étoile" et "Regard de la Croix").
- Le Thème d'accords se trouve partout, fractionné, concentré, auréolé de résonances, combiné avec lui-même, changé de rythme et de registre, transformé, transmuté de toutes sortes de façons: c'est un complexe de sons destiné à de perpétuelles variations, préexistant
dans l'abstrait comme une série, mais bien concret et très aisément reconnaissable par ses couleurs: un gris bleu d'acier traversé de rouge et d'orangé vif, un violet mauve taché de brun cuir et cerclé de pourpre violacée.

Les numéros des pièces sont ordonnés par les contrastes de tempo, d'intensité, de couleur - et aussi par des raisons symboliques. Sont distribués de cinq en cinq les Regards qui traitent de la Divinité: I) Regard du Père - V) Regard du Fils sur le Fils - X) Regard de l'Esprit de joie - XV) le Baiser de l'Enfant-Jésus (manifestation visible du Dieu invisible) - XX) Regard de l'Église d'amour (qui prolonge le Christ).

Le "Regard de la Croix" porte le numéro VII (7, chiffre parfait) parce que les souffrances du Christ en Croix ont rétabli l'ordre troublé. par le péché. Les Anges étant confirmés en grâce, le "Regard des Anges" porte le numéro XIV (2 fois 7).

- Le "Regard du Temps" porte le numéro IX: le Temps a vu naître en lui Celui qui est Éternel, en l'enfermant dans les neuf mois de maternité que connaissent tous les autres enfants. Le "Regard de l'Onction terrible" porte le numéro XVIII (2 fois 9): la Divinité est répandue sur l'Humanité du Christ en une seule personne qui est le Fils de Dieu: cette Onction stupéfiante, ce choix d'une certaine chair par la Majesté épouvantable, suppose l'Incarnation et la Nativité.
- Les deux pièces qui parlent: de la Création et du Gouvernement Divin ou Soutien de toutes choses et Création continuée sans cesse, sont: VI) "Par Lui tout a été fait" ( 6 est le chiffre de la Création) - XII) "La Parole toute puissante" ( $12=2$ fois 6 ).

Analyse succincte de chaque pièce:

## I - Regard du Père

Phrase complète sur le Thème de Dieu. Et Dieu dit: "Celui-ci est mon Fils bien-aimé en qui j'ai pris toutes mes complaisances..." (Évangile selon Saint Matthieu, III, 17).

## II - Regard de l'Étoile

Thème de l'Étoile et de la Croix. On y trouve un mystérieux écho de la métrique grecque et des neumes du plain-chant.

## III - L'Échange

Toute la pièce est écrite è crescendo, selon le procédé de "l'agrandissement asymétrique": les mêmes fragments, juxtaposés ou superposés, se répètent: à chaque terme, certaines notes montent, d'autres descendent, d'autres restent immobiles. C'est un commentaire de cette antienne du Missel: "Ô commerce admirable! Le Créateur du genre humain, prenant un corps et une âme, a daigné naître de la Vierge, pour nous faire part de sa divinité."

## IV - Regard de la Vierge

Toute simple et naïve, la musique s'appuie sur l'alternance de deux mètres grecs: Ionique mineur et $3^{e}$ Épitrite. Au milieu: superposition de "modes à transpositions limitées," mode $4^{4}$ sur mode $3^{1}$, mode $6^{3}$ sur mode $2^{2}$, mode $3^{2}$ sur mode $4^{2}$, avec tous les mélanges de couleurs que cela comporte. A la rentrée, un contrepoint mélodique nouveau exprime la tendresse du regard maternel.

## V - Regard du Fils sur le Fils

Il s'agit du Fils-Verbe regardant le Fils-Enfant-Jésus. Trois sonorités, trois modes, trois rythmes, trois musiques superposées. Trois rythmes. Les deux musiques supérieure et médiane font un canon rythmique par ajout du point. La partie proposante aligne trois decîtâlas (rythmes hindous): râgavardhana, candrakâla, lakskmîça. La partie répondante reprend les mêmes durées, mais pointées, c'est-àdire plus longues d'une moitié, en repointant les notes déjà pointées dans la proposition: il y a donc entre les deux musiques un décalage de tempo tel que la musique supérieure peut dérouler trois termes pendant que la musique médiane n'en déroule que deux. La musique inférieure fait entendre, en valeurs lentes, la phrase complète sur le Thème de Dieu.

Trois "modes à transpositions limitées." La musique supérieure aligne les accords en mode $6^{3}$, dont la couleur est un jaune soufre transparent, à reflets mauves, avec des coins de bleu de prusse et brun violacé. La musique médiane est en mode $4^{4}$, dont la couleur rappelle les fleurs de pétunia: violet sombre, blanc à dessin violet, violet pourpre. La musique inférieure est en mode 2 dans ses trois transpositions, surtout dans la première ou $2^{1}$, dont la couleur dominante est bleu violet. Le registre général étant aigu, le ton lumineux de fa dièse majeur absorbant en partie le mode 2 , tous ces violets et ces bleus circulent dans une atmosphère générale d'or et d'argent avec un peu de rouge cuivré. De temps en temps, la
polyrythmie et la polymodalité s'interrompent, et le Thème de Dieu continue, contrepointé seulement par un chant d'oiseau idéal, qui emprunte à la fois au merle noir et à la fauvette des jardins.

- Après ces explications techniques et colorées, on comprendra peut-être mieux le petit poème mystique qui sert d'exergue à la pièce: "Mystère, rais de lumière dans la nuit - réfraction de la joie, les oiseaux du silence - la personne du Verbe dans une nature humaine mariage des natures humaines et divines en Jésus-Christ..."


## VI - Par Lui tout a été fait

Il s'agit de la Création, accomplie par le Fils de Dieu ou Verbe (et l'Enfant-Jésus est ce Fils de Dieu fait homme). "Par le Verbe tout a été fait, et sans Lui rien n'a été fait" (Évangile selon saint Jean, I, 3).

Cette Création du Tout: espace, temps, étoiles, planètes - et la Face (ou mieux la Pensée de Dieu) derrière la flamme et le bouillonnement, personne ne peut en parler. Aussi n'en ai-je point parlé... je me suis caché derrière une Fugue. L'Art de la Fugue de Bach et la fugue de "l'opus 106" de Beethoven n'ont rien à voir avec la fugue d'école. Tout comme ces grands modèles, voici une fugue anti-scholastique.

Exposition. Le sujet n'y est jamais présenté de la même façon. Première entrée: Sujet et Contre-Sujet normaux. - Deuxième entrée: Sujet changé de rythme et de registres, superposé à lui-même en "agrandissement asymétrique." - Troisième entrée: Réponse contraire et Contre-Sujet contraire. - Quatrième entrée: Réponse changée de rythme et de registres, superposée à la suite du Sujet en "agrandissement asymétrique." Aussitôt, strette du Sujet en triple canon de "rythmes non rétrogradables." Le Contre-Sujet, à son tour, est changé de rythme et de registres. On entend une succession rapide d'accords de six, sept, huit sons: ces accords constituent le Thème d'accords. Un nouveau triple canon rythmique du Sujet se superpose à un bruitage staccato dans l'extrême grave du clavier. Plus loin, le Sujet est encore métamorphosé: il est traité en valeurs égales (simples et pointées), répandu sur toute l'étendue du clavier, et chacune de ses notes est soulignée par un groupe-fusée. Croisant avec lui, un fractionnement du Thème d'accords, scindé en groupes de un, deux, trois et quatre sons (surtout de deux sons). Le même Thème d'accords réapparaît en groupes-fusées et accords trillés, à la façon d'une attaque et d'un roulement de percussion métallique.

Grand Divertissement de Fugue qui superpose deux éléments. a) Partie supérieure: le Sujet est traité en "rythme non rétrogradable" (c'est-à-dire que si on le lit de gauche à droite, puis de droite à gauche, on retrouve exactement le même ordre de durées, d'où une force psychique du rythme). Le Sujet est progressivement éliminé, symétriquement à droite et à gauche: le "rythme non rétrogradable" reste donc toujours tel, puisque amputé à la fois dans les deux sens, et nous avons là un des procédés les plus frappants du développement d'un "rythme non rétrogradable." b) Simultanément, la basse utilise un fragment du Sujet changé de rythme et de registres, et répété en "agrandissement asymétrique." Cette basse fortissimo dans le grave s'entend beaucoup, et donne une grande puissance à tout le Divertissement.

Milieu. Groupes alternés de durées très brèves et très longues. J'ai eu cette idée en lisant des ouvrages d'astronomie (ordre des grandeurs) et de microphysique (ordre des petitesses). Le ContreSujet en triples croches rapides (dans les registres extrême-aigu extrême-grave ensemble) joue le rôle des électrons et des photons (l'extrêmement petit). Les mesures intercalaires jouent le rôle des étoiles (l'extrêmement grand), et utilisent le Thème d'accords scindé en groupes de deux à quatre sons, avec changements de registres, et canon à l'octave démarrant à différentes places, le tout complètement brouillé par la pédale. L'alternance des deux groupes donne une nouvelle écriture de clavier: fulgurance du trait fortissimo dans les extrêmes, brouillage des doubles et triples sons chevauchés dans le médium pianissimo.

Après le Milieu, reprise de toute la Fugue "à l'écrevisse," en sens rétrograde.

Puis, grande Strette, sur le Sujet traité en "agrandissement asymétrique." C'est, d'abord, un triple canon. A chaque terme, chacune des trois voix a des notes qui montent, des notes qui descendent, des notes immobiles. Au bout d'un certain nombre de termes, les voix se trouveront, par places, excessivement espacées, ou ramassées en croisement. L'effet se poursuit par des accords plus épais du Sujet droit et du Sujet contraire ensemble. Sur le tout, l'accelerando, puis le rallentando, posent leur machine infernale. Ce passage allant du pianissimo le plus lointain au fortissimo le plus terrible, on entend un énorme crescendo alliant l'ordre cinématique à l'intensité et à la densité. Autre crescendo: on passe insensiblement
d'un langage noir et atonal à la victoire de la couleur et de la clarté par l'entrée en force de la joyeuse tierce majeure.

Développement sur le Thème de Dieu, suivi du Thème de l'amour mystique. Tous deux sont présentés en valeurs lentes, en choral, en fanfare. On les entend en fa dièse majeur, si bémol majeur, ré majeur, le ton majeur étant toujours mêlé à un "mode à transpositions limitées." Le Thème d'accords est là aussi, mais joué dans l'extrême grave, en crescendo, à toute vitesse, avec un brouillage de pédale, ce qui transforme complètement la matière sonore et crée une sorte de transmutation. On entend également le Sujet de Fugue martelé dans le grave avec changements de registres et débuté par un "ra" de tambour.

Après un silence, conclusion qui peut se diviser en deux Codas. Première Coda: toute la Création chante en fa dièse majeur sur le Thème de Dieu et sur le Thème de l'amour mystique. Deuxième Coda: reprise des groupes alternés de durées très brèves et très longues entendus dans le Milieu, mais avec une autre musique dernière proclamation du Sujet par changements de registres en canon à l'octave - et un grand arpège final qui fait résonner tout le clavier et où se trouve résumée toute la matière harmonique de la pièce: tierce majeure, Thème d'accords, total chromatique.

## VII - Regard de la Croix

Thème de l'Étoile et de la Croix, accompagné d'un gémissement chromatique perpétuel, en anacrouse, accent, muette - qui se transforme entre chaque période du thème en polymodalité douloureuse et cependant colorée: mode $6{ }^{4}$ (couleur générale: bandes verticales jaunes, violettes et noires), superposé à mode $4^{6}$ (couleur générale: reflets rouge carmin, pourpre violacée, orange, gris mauve, gris rose). Cette superposition s'oppose au gris noirâtre du chromatisme, et aboutit toujours à un accord mineur avec sixte majeure, d'un violet intense.

## VIII - Regard des Hauteurs

C'est dans la nuit de la Nativité que retentit pour la première fois le chant des Anges: "Gloria in excelsis" (Gloire dans les Hauteurs!). Ces Hauteurs sont symbolisées ici par des chants d'oiseaux. On entend tour à tour: la grive musicienne, le rossignol, le merle noir, la fauvette des jardins et un chœur de toutes sortes d'oiseaux ensemble. Le grand soliste, celui qui tient sans cesse les régions supérieures de la scène, c'est l'alouette des champs, oiseau de plein-ciel, oiseau des hauteurs par excellence, dont le chant évolue entre deux pôles: une
note grave longue dans les courts moments de vol plané, une dominante suraiguë pour le vol battu: autour de cette dominante s'enroulent toutes les guirlandes mélodiques du solo, comme vers un plafond perpétuel, sublime, et increvable!

## IX - Regard du Temps

L'Incarnation du Verbe est comme une irruption de l'Éternité dans le Temps: le Temps voit naître en lui Celui qui est Éternel. Nous sommes là devant un mystère, pour certains théologiens le plus grand de tous les mystères. Toute la pièce est donc mystérieuse, et son matériau musical reste étrange. Deux musiques évoluent alternativement: $a$ ) un thème avec ses différentes périodes - b) un canon rythmique. Le canon rythmique est triple, et ses trois voix (en complexes de quartes augmentées et justes) entrent toujours à une croche de distance. Le rythme général du canon est le rythme Crétique (longue, brève, longue), avec des longues et des brèves de valeurs différentes (plus ou moins longues ou brèves), dont l'enchaînement donne les rapports suivants: retrait des $3 / 4$, ajout du double, retrait des $2 / 3$, ajout du quadruple, retrait des $4 / 5$.

## X - Regard de l'Esprit de joie

L'âme du Christ, au cours de sa vie terrestre, a joui du privilège constant de la vision béatifique. Dieu est heureux, et le Christ possédait cette même joie, ce transport, cette ivresse spirituelle, que nous traduisons par ces mots: "tu solus Sanctus" (toi, le seul Saint!). Cette joie entraînait l'habitation permanente du Saint-Esprit: tel est le sens du titre de la pièce.

On peut la diviser en sept sections:
-1) Danse orientale, jouée dans l'extrême grave du clavier, et coupée par de violents groupes-fusée en mouvement contraire. Elle use de neumes de plain-chant, et de sons répétés deux ou trois fois (distropha, tristropha).
-2) Premier développement sur le Thème de joie.

- 3) Passage de transition, superposant deux agrandissements asymétriques dans lesquels certaines notes montent ou descendent chromatiquement à chaque terme: seule, le mi ne bouge jamais. Toujours sur le même mi (dominante du prochain la majeur), un trait de piano intéressant: il se joue la main à plat, les doigts évoluant à droite
et à gauche du pouce couché, dans un mouvement de rotation et de balancier. De nouvelles fusées inversées amènent la quatrième section.
-4) Troisième thème, en rythme Crétique, qui sonne comme quatre cors. Il est présenté en trois variations successives: la première en la majeur, la deuxième en ré bémol, la troisième en fa.
- 5) Deuxième développement sur le Thème de joie et le Thème de Dieu. Le Thème de joie est traité en carillon de cloches aiguës. Partant d'un pianissimo subito, une montée en crescendo sur les quatre premières notes du Thème de joie, harmonisées par une contraction du Thème d'accords.
- 6) Reprise de la Danse orientale et neumatique du début, registres extrême-aigu extrême-grave ensemble.
- 7) Coda sur le Thème de joie, lent, avec de grandes résonances. Un trait combiné avec des trilles forme chant d'oiseau. Dernier rappel du troisième thème (celui des quatre cors), et trait final qui démarre en fusée et descend très vite vers un coup de grosse caisse.


## XI - Première communion de la Vierge

Nous sommes ici entre l'Annonciation et la Nativité: c'est la première et la plus grande de toutes les communions. Marie adore Jésus en elle: mon Dieu, mon Fils, mon Magnificat! mon amour sans bruit de paroles...

Thème de Dieu pianissimo, en si bémol et en mode $2^{2}$. Des guirlandes rapides évoquent les dessins des stalactites dans les grottes oracliennes. D'autres guirlandes, plus lentes, en doubles notes, comme deux flûtes idéales, referment les bras avec une grande tendresse sur cette Vérité qui parle en nous silencieusement. Un court rappel de "la Vierge et l'Enfant" (autre pièce du même auteur sur la "Nativité du Seigneur"), et voice le Magnificat! Le Thème de Dieu, plus rapide, en rythme Crétique et trochaïque, avec ajout de valeurs pointées, soutient les anacrouses haletantes qui préparent chaque accent du cantique de joie et de louange. Puis, la note ré (note des anacrouses) est harmonisée d'une vingtaine de façons différentes, en se servant des "accords à renversements transposés," et en alternant deux séries de chiffres, d'abord sous-entendus, sont ensuite exprimés dans le grave en pulsations régulières qui représentent les
battements du cœur de l'Enfant. Coda sur le Thème de Dieu, qui s'évanouit dans le silence vers la dernière tierce de l'embrassement intérieur.

## XII - La Parole toute-puissante

L'Enfant-Jésus est ce Fils, ce Verbe, "qui soutient toutes les choses par la puissance de sa parole" (Saint Paul, Épître aux Hébreux, I, 3).

La matière musicale est ici simple et terrible. C'est une monodie fortissimo , établie sur un grand mode mélodique qui s'étend sur trois octaves: diatonisme et chromatisme dans l'octave la plus haute, intervalles plus disjoints ensuite, trois quintes dans le grave. Certaines notes ont leur ornement propre: fusée descendante qui les précède toujours. On entend çà et là quelques rythmes grecs: Amphimacre, Bacchius, et les différents Épitrites. Une percussion dans l'extrêmegrave, à sonorité de tam-tam, remplace l'harmonie manquante: c'est un ostinato sur un "rythme non rétrogradable," alignant des valeurs de $3,5,8,5,3$ (doubles croches) - chaque terme de l'ostinato étant séparé de son voisin par un silence équivalent à 7 (doubles croches). Plusieurs do graves sont pourvus d'un roulement de tambour en crescendo qui vient heurter violemment le rythme du tam-tam.

## XIII — Noël

La première partie de la pièce est un carillon: ce sont les cloches de Noël. On y remarque aussi un thème de xylophone, le Thème d'accords concentré, puis fractionné, et le rythme hindou "miçra varna" (ce qui veut dire en sanskrit: mélange de couleurs). Plus des frémissements sonores, des frou-frous de soieries.

- Le Milieu évoque la Sainte-Famille et l'Adoration devant l'Enfant de la crèche. Il est écrit en "mode à transpositions limitées" $\mathrm{n}^{\circ}$ $3^{1}$ (couleur orangé, or et blanc laiteux). En opposition, une autre couleur polymodale: mode $3^{4}$ (orangé, rouge, avec un peu de bleu) superposé à mode $2^{1}$ (or et brun) - et une troisième couleur: le mode $3^{1}$ (gris et mauve), avec une pédale supérieure dont les notes étrangères ajoutent un peu de rouge.
- A la reprise de la première partie, les cloches s'accroissent d'un long mouvement convergent (en éventail refermé). Court rappel du Milieu pour conclure.
- Toute la pièce réclame du pianiste des attaques variées imitant d'autres instruments: timbres de cloches et de tam-tam, de xylophone et de marimba, de clarinettes et de flûtes, sans parler des froufrous de soieries déjà signalés, et du rythme de timbales qui termine.


## XIV - Regard des Anges

Première strophe. Flamboiement, obtenu par un trait tournant, à mains croisées, sur les touches blanches et noires - il illustre cette citation des Psaumes: "tes serviteurs sont des flammes de feu" (Psaume 104, 4). Suivent le Thème d'accords et un triple canon rythmique sur des rythmes hindous. Puis une évocation iconographique empruntée au "Jugement dernier" de Michel-Ange (Chapelle Sixtine): ce sont ces anges athlétiques, à figure humaine, aux yeux révulsés par l'effort, qui soufflent dans d'immenses cuivres graves à sonorité de trombones ou de trompes thibétaines: au-dessus de l'agrandissement d'intervalles des trombones, fractionnement du Thème d'accords.

La deuxième et la troisième strophes reprennent les mêmes matériaux, en les allongeant, chaque strophe étant donc plus longue que la précédente. Quatrième strophe: chants d'oiseaux (surtout le merle noir). Continuation du canon rythmique sous les chants d'oiseaux. A la cinquième strophe, le thème de trombones est repris et répété sur le rythme du troisième Épitrite grec (deux longues, brève, longue); c'est un énorme agrandissement d'intervalles, dont l'extension se poursuit pendant vingt-trois termes, allié à un long crescendo de pianissimo à più fortissimo, qui exprime la stupeur des Anges: car ce n'est pas à eux (purs esprits), mais à la race humaine, que Dieu s'est uni, et le Fils de Dieu incarné "ne rougit pas de nous appeler ses frères." (Saint Paul, Épître aux Hébreux, II, 11).

## XV - Le Baiser de l'Enfant-Jésus

Utilisation du deuxième "mode à transpositions limitées," dans ses trois transpositions, appliquées à fa dièse majeur: $2^{1}$ pour la tonique, $2^{2}$ pour la dominante, $2^{3}$ pour la sous-dominante. Rythmes souples et précis, avec nombres premiers, trochées et iambes, chutes amorties par l'ajout du point. Écriture pianistique très simple au départ (aussi dépouillé que du Rameau), dont les variations évoluent vers une ornementation de charme (allant de l'accentuation mozartienne aux traits de légèreté inaugurés par les Études de Chopin). Tout ceci n'étant que la présentation technique du matériau.

- Les sous-titres inscrits sur la musique disent beaucoup plus: le sommeil - le jardin - les bras tendus vers l'amour - le baiser - l'ombre du baiser. Je me souviens d'une image que j'aimais beaucoup, et qui représentait l'Enfant-Jésus quittant les bras de sa Mère pour embrasser la petite sœur Thérèse. A chaque communion aussi, l'En-fant-Jésus ouvre les portes sur un jardin merveilleux, puis se précipite à toute lumière pour nous embrasser. L'explication de ce poème mystique réside peut-être dans le fait qu'on y entend sans arrêt le Thème de Dieu traité en berceuse: comme si le cœur du ciel entourait notre sommeil de son inépuisable tendresse... Et comme le dit avec tant d'amour l'Apocalypse (XXI, 4): "Dieu essuiera toute larme de nos yeux!"


## XVI - Regard des prophètes, des bergers et des Mages

Musique exotique: tam-tams et hautbois, concert énorme et nasillard... Dans l'introduction: valeurs progressivement accélérées, en gamme chromatique de durées, et en crescendo. Dans la Coda: valeurs progressivement ralenties, en gamme chromatique de durées, et en crescendo. Ces deux effets inverses créent une union du quantitatif et du dynamique.

## XVII - Regard du silence

Même canon rythmique par ajout du point que dans la cinquième pièce: "Regard du Fils sur le Fils" - mais avec une autre musique. La partie proposante use d'un ostinato de dix-sept accords en mode $3^{4}$. La partie répondante (celle dont les durées sont pointées) use d'un ostinato de dix-sept accords en mode $4^{4}$. Après cette Introduction où la musique semble sortir du silence comme les couleurs sortent de la nuit, deux Strophes.

- Première Strophe. Plusieurs registres, plusieurs intensités, plusieurs colorations, en "litanie harmonique" sur les notes: sol, fa. On y entend des "accords à renversements transposés," des "accords à résonance contractée," le Thème d'accords concentré (toutes notes simultanées), des oppositions de couleur entre les modes $3^{3}$ (bleu et vert), le mode $2^{2}$ (mauve et rose dans l'aigu, or et brun dans le grave), le mode $4^{4}$ (violet veiné de blanc), et des arpèges contraires à mains croisées qui frémissent délicatement comme des toiles d'araignée. Vers la fin de la Strophe, le Thème d'accords combiné avec lui-même en mouvement rétrograde et droit, la rétrogradation faisant résonance et réverbération du mouvement droit, comme deux arcs-en-ciel dont l'un entoure l'autre.
- La deuxième Strophe use des mêmes matériaux que la première, avec quelques changements. La Coda reprend la polymodalité de l'Introduction, dans le registre suraigu, en alternant les accords entre les deux mains: musique multicolore et impalpable, en confetti, en pierreries légères, en reflets entrechoqués.


## XVIII - Regard de l'Onction terrible

Le Verbe assume une certaine nature humaine; choix de la chair de Jésus par la Majesté épouvantable... C'est là cette Onction unique, inouie, terrifiante, dont parle le Psaume 45. Pour arriver à rendre ce mystère formidable, j'ai regardé une vieille tapisserie représentant une scène de l'Apocalypse: le Verbe de Dieu en lutte sous les traits du Christ à cheval - on ne voit que ses deux mains sur la garde de l'épée qu'il brandit au milieu des éclairs!...

Toute la pièce est un puissant choral de cuivres, animé par les secousses de la foudre. Dans l'Introduction: des valeurs progressivement ralenties, superposées à des valeurs progressivement accélérées, en deux gammes chromatiques de durées, crescendo molto, se rapprochant jusqu'à très près, par mouvement convergent. Dans la Coda: des valeurs progressivement accélérées superposées à des valeurs progressivement ralenties, en deux gammes chromatiques de durées, crescendo molto, s'éloignant jusqu'à très loin, par mouvement divergent.

## XIX - Je dors, mais mon cœur veille

On entend ici le Thème de l'amour mystique. Emprunté au plus beau de tous les poèmes d'amour mystique, le "Cantique des Cantiques," le titre fait parler l'âme qui attend le Bien-Aimé. La musique peut dire plus que les mots, et je ne l'expliquerai que par une autre image de l'amour mystique, tirée des "Fioretti": l'Ange poussa l'archet sur la viole et fit une note si suave, que s'il avait continué en tirant l'archet, on serait mort de joie...

## XX - Regard de l'Église d'amour

Trait en gerbe, en mouvement contraire, avec doigtés symétriques aux deux mains. Rythme non rétrogradable, amplifié par des ajouts symétriques à gauche et à droite. Thème de Dieu en si majeur.

Long passage de transition, brouillé de pédale, confus et menaçant, qui superpose des permutations mélodiques dans l'aigu à un
agrandissement asymétriqe dans le grave, et s'avance en crescendo comme la marée montante. Thème de Dieu en ré bémol. Deuxième marée montante. Thème de Dieu en fa majeur. Développement sur le Thème de l'amour mystique. De nouveau, le trait en gerbe contraire, et le rythme non rétrogradable amplifié à gauche et à droite. Troisième marée montante, plus longue, et aussi plus agitée que les précédents par l'emploi des octaves brisées. Pédale de dominante, traitée en carillon de cloches, où l'on retrouve le Thème d'accords, et des "accords à renversements transposés": elle se termine par un épaississement progressif des complexes de sons, marchant de pair avec un ralentissement progressif des durées, et aboutissant à la note unique: do dièse.

- Alors la Gloire s'ouvre, et l'exposition commence. Phrase complète sur le Thème de Dieu, en fa dièse majeur, en fanfare de cuivres, en accords répétés fortissimo, avec cymbales, tam-tams, cloches, chants d'oiseaux. Grande Coda, toujours sur le Thème de Dieu: après les gerbes de nuit, les spirales d'angoisse, voici le triomphe de l'amour et les larmes de joie - toute la passion de nos bras autour de l'Invisible!...


## APPENDIX 4

## Recital Programs Presented

## In Partial Fulfillment Of The Requirements For

The Doctor Of Musical Arts Degree In Piano Performance

Aside from coursework and comprehensive examinations in Music Theory, Music History, and Literature of the Piano, the following were presented to the public in partial fulfillment of the requirements for the Doctor of Musical Arts degree in piano performance. The two items noted with an asterisk constitute the "thesis" as defined in the D.M.A. degree. The four recital programs are printed below.

1. Piano Recital, UBC School of Music, 24 April 1988
2. Chamber Music Recital, UBC School of Music, 22 April 1989
3. Lecture Recital, UBC School of Music, 30 May 1995
4.     * Document: "Aspects of Structure in Olivier Messiaen's Vingt Regards sur l'Enfant-Jésus," June 1995
5.     * Thesis Recital, UBC School of Music, 14 August 1995
6. Final Oral Examination, UBC Graduate Studies Examination Room, 15 August 1995

THE UNIVERSITY OF BRITISH COLUMBIA SCHOOL OF MUSIC RECITAL HALL
Sunday, April 24, 1988
8:00 p.m.
GRADUATE RECITAL *

## David Rogosin, piano

| English Suite No. 3 in G minor, BWV 808 | J. S. Bach |
| :--- | ---: |
| Prélude |  |
| Allemande |  |
| Courante |  |
| Sarabande |  |
| Gavotte and Musette |  |
| Gigue |  |

Sonata in C major ("Waldstein"), Op. 53
Ludwig van Beethoven
Allegro con brio
(1770-1827)
Introduzione; Adagio molto
Rondo; Allegretto moderato
INTERMISSION

| Symphonic Etudes, Op. 13 (2nd edition, 1852) | Robert Schumann |
| :---: | ---: |
| Thema; Andante |  |
| Variations 1-11 |  |
| Finale; Allegro brillante |  |

Le baiser de l'Enfant-Jésus Olivier Messiaen
(Number XV of "Vingt Regards sur l'Enfant-Jésus")
(b. 1908)

IN MEMORIAM
Andrew Keay Inglis
1951-1987

* In partial fulfillment of the requirements for the Doctor of Musical Arts
degree in Piano Performance.

THE UNIVERSITY OF BRITISH COLUMBIA SCHOOL OF MUSIC RECITAL HALL
Saturday, April 22, 1989
8:00 p.m.

# GRADUATE RECITAL * 

## David Rogosin, piano

with
Kandie Kearley, soprano
Daniel Norton, violin
Adrienne Park, piano
Janet Steinberg, cello

Trio in $\mathbf{E}^{\mathbf{b}}$ major, Op. 100<br>Franz Schubert<br>Allegro<br>(1797-1828)<br>Andante con moto<br>Scherzo: Allegro moderato; trio<br>Allegro moderato

Daniel Norton, violin
Janet Steinberg, cello
INTERMISSION

## Liederkreis, Op. 39

Robert Schumann
(A cycle of twelve songs on poems by Joseph von Eichendorff)
(1810-1856)

1. In der Fremde
2. Auf einer Burg
3. Intermezzo
4. In der Fremde
5. Waldesgespräch
6. Wehmut
7. Die Stille
8. Zwielicht
9. Mondnacht
10. Im Walde
11. Schöne Fremde
12. Frühlingsnacht

Kandie Kearley, soprano

Variations on a Theme by Paganini
Witold Lutoslawski for two pianos (1941)
(b. 1913)

Adrienne Park, piano

* In partial fulfillment of the requirements for the Doctor of Musical Arts degree in Piano Performance.

THE UNIVERSITY OF BRITISH COLUMBIA
SCHOOL OF MUSIC RECITAL HALL
Tuesday, May 30, 1995
8:00 p.m.

## GRADUATE LECTURE RECITAL *

## David Rogosin

## ASPECTS OF STRUCTURE IN OLIVIER MESSIAEN'S "VINGT REGARDS SUR L'ENFANT-JÉSUS"

The first part of the presentation consists of a general overview of the musical language and compositional techniques of Olivier Messiaen (1908-92) as seen in his Vingt Regards sur l'Enfant-Jésus (1944), a work for solo piano over two hours long.

Part two examines three aspects of the piece in greater detail: (a) tonal organization as governed by Messiaen's "modes of limited transposition"; (b) formal organization and the use of themes, motifs and musical processes as unifying devices; (c) the idiosyncratic, extra-musical ideas embodied in the composition such as sound/color associations (synæsthesia), programmatic ideas, and religious and numerological symbolism.

In part three, seven of the cycle's twenty pieces will be performed, chosen for the representative cross-section of musical styles they provide. Each will be preceded by a brief discussion of the musical ideas and materials found therein. The seven selections will be heard in this order:

1. Regard de l'étoile (No. 2)
2. Noël (No. 13)
3. Première communion de la Vierge (No. 11)
4. Regard de la Vierge (No. 4)
5. Regard des prophètes, des bergers et des Mages (No. 16)
6. Regard du temps (No. 9)
7. Le baiser de l'Enfant-Jésus (No. 15)

* In partial fulfillment of the requirements for the Doctor of Musical Arts degree in Piano Performance.

THE UNIVERSITY OF BRITISH COLUMBIA
SCHOOL OF MUSIC RECITAL HALL
Monday, August 14, 1995
8:00 p.m.

# GRADUATE THESIS RECITAL * 

## David Rogosin, piano

Sonata No. 4 in Eb, Op. 7 (1797)<br>Ludwig van Beethoven<br>Allegro molto e con brio<br>(1770-1827)<br>Largo, con gran espressione<br>Allegro \& Minore<br>Rondo: Poco Allegretto e grazioso<br>Quaderno Musicale di Annalibera (1952)<br>Luigi Dallapiccola<br>Simbolo<br>(1904-1975)<br>Accenti - Contrapunctus primus<br>Linee - Contrapunctus secundus (Canon contrario motu)<br>Fregi - Andantino amoroso e Contrapunctus tertius (Canon cancrizans)<br>Ritmi - Colore - Ombre<br>Quartina

## INTERMISSION

## Two Etudes in F minor

- Etude No. 1 of "Trois Nouvelles Études" (1839) Frédéric Chopin (1810-1849)
- Etude de Concert No. 2, "La Leggierezza" (1857) Franz Liszt (1811-1886)

Sonata No. 5, Op. 53 (1907)
Alexander Scriabin
(1872-1915)
Piano Phase for two pianos (1967)
Steve Reich
(b. 1936)
with Grace Quaglio, second piano

* In partial fulfillment of the requirements for the Doctor of Musical Arts degree in Piano Performance.


## AFTERWORD

While a number of reference works were used for technical matters of form, style, spelling, hyphenation and so on, the usage in this document generally conforms to that found in the following two works:

William Morris, ed.,
The Houghton Mifflin Canadian Dictionary of the English Language (Markham, ON: Houghton Mifflin Canada, 1980)

Kate L. Turabian,
A Manual for Writers of Term Papers, Theses, and Dissertations, 5th edition (Chicago and London: University of Chicago Press, 1987)

This document was prepared using WriteNow 3.0 and Microsoft Word 5.1a software on a Macintosh Classic computer, and printed in 12 point New Century Schoolbook font.


[^0]:    ${ }^{2}$ Care will have to be taken in the numerous instances such as this one where a bar of music spans more than one system. It would be easy, for example, to mistake the first notes at the top of page 78 for $\{78-1-1\}$, whereas that designation should properly refer to the (incomplete) bar at the end of the same line. The first notes at the top of page 78 actually belong to $\{77-4-1\}$. It should further be noted that no designation of "bar" or "measure" will be used, the braces alone implying such reference.

[^1]:    ${ }^{3}$ These two examples come from the opening of Regard du Fils sur le Fils, page 18. Notice that the original level of each mode (beginning on $C$ in each case) is referred to as the "first transposition"-a somewhat illogical, unituitive choice of terminology. See Messiaen's explanation in Olivier Messiaen, The Technique of My Musical Language, trans. John Satterfield (Paris: Leduc, 1957) vol. 1: 58-62, and vol. 2: examples 315, 329, 330, etc.

    This work, henceforth referred to as "Technique," was originally published as Technique de mon langage musical (Paris: Leduc, 1944). N.B. All references to Technique are to the English edition of this work. Page numbers apply to volume 1 (text), and example numbers apply to volume 2 (musical examples).

[^2]:    4 Tonality as the term is used, for example, by Wallace Berry in Structural Functions in Music, new paperback edition (New York: Dover, 1987) and George Perle in Twelve-Tone Tonality (Berkeley \& Los Angeles: University of California Press, 1977).

    5 Indeed, some would maintain that they do not. As sympathetic and astute an observer as Pierre Boulez commented in 1986 that he finds this sort of juxtaposition "rather strange." Cited in Rosemary Walker, "Modes and Pitch-Class Sets in Messiaen: A Brief Discussion of Première communion de la Vièrge" Music Analysis 8:1-2, (March/July, 1989), 165.
    ${ }^{6}$ Messiaen, Technique, 58. Italics Messiaen's.

[^3]:    ${ }^{7}$ Messiaen, Technique, 13. Italics Messiaen's.

[^4]:    ${ }^{8}$ In the score, Messiaen refers to three cyclical themes (the Thème de Dieu, Thème de l'Étoile et de la Croix and Thème d'accords), but in later program notes (see Appendix 3, $\mathrm{pp} .210-12$ ) a fourth, the Thème de l'amour mystique, is mentioned. Paul Griffiths, in his Olivier Messiaen and the Music of Time (Ithaca, New York: Cornell University Press, 1985), 117-118, also cites a fourth cyclic theme, describing it as the "theme of joy." In this paper I treat the thème d'amour as the first of three secondary themes related to the Thème de Dieu, the other two being the thème du baiser and the thème de joie.

[^5]:    ${ }^{9}$ Robert Sherlaw Johnson, Messiaen, new paperback edition (University of California Press: Berkely \& Los Angeles, 1989), 73.
    ${ }^{10}$ Messiaen, Conférence de Kyoto (Paris: Leduc, 1988), 3; my translation. Parallels between rhythmic and harmonic concepts are absolutely typical of the composer.

[^6]:    11 Messiaen states that "it is mathematically impossible to find others" [Technique, 58], although John Schuster-Craig demonstrates that one other is possible in "An eighth Mode of Limited Transposition," The Music Review 51/4 (November 1990): 296-306.

[^7]:    13 Messiaen speaks of the truncation principle involved in modes 4,5 and 7 [Technique, 61-62] without clearly delineating other relationships.

    14 The "Noël motif" provides an example of an important thematic element essentially derived from concatenations of three-note chords in fourths.

[^8]:    ${ }^{15}$ Messiaen, Technique, 50.

[^9]:    17 Messiaen, Technique, 19.

[^10]:    18 Messiaen states that simultaneous acceleration and deceleration is "an extremely rare effect and hardly exists except in Bali." Claude Samuel, Conversations with Olivier Messiaen, trans. Felix Aprahamian (London: Stainer \& Bell, 1976), 75. It has also been exploited by Conlon Nancarrow in his compositions for player piano, the rhythms and notes being punched directly (mechanically) into the piano roll (see note 138, p. 181).

    19 Griffiths, ibid., 26.

[^11]:    20 Various spellings of the Indian terms and proper names abound, and obvious printing errors (in Johnson's Messiaen, notably) only complicate the situation. For the sake of simplicity I will use the spellings adopted by Messiaen, originating in Albert Lavignac's Encyclopédie de la musique (Paris, 1920-31). Reference to Sharngadeva's rhythms will be found in the principal biographies and analytical works, as well as in André Boucourechliev, "Messiaen, Olivier," The New Grove Dictionary of Music and Musicians, ed. Stanley Sadie (London: Macmillan, 1980), vol. 12, 205, and Regula Qureshi, "Music history to the mid16th century," s.v. "India, subcontinent of, §I.4," New Grove, vol. 9, 76-77.
    ${ }^{21}$ No such authenticity was even possible. Griffiths notes that "these deçi-tâlas were already antiquated conceits when they were tabulated," and that the Lavignac Encyclopédie arguably contained notational errors (Griffiths, ibid., 60). Apart from any such deficiencies in the sources, however, is the more immediate issue of Messiaen's understanding and use of the material.

[^12]:    23 Johnson, ibid., 37.
    ${ }^{24}$ Messiaen, Technique, 20.
    ${ }^{25}$ The 16th-note added to cell four could also be viewed as the first member in a final cell showing an incremental progression by 16 th-notes (the largest common value): 16thnote, 8th-note, dotted 8th-note, quarter-note, and a doubling (thus breaking the pattern) to the final half-note. A less divergent version would add to the composer's last A group the 16th-note marked with a cross (thus rendering the preceding B group "exact"). Messiaen undoubtedly kept the last four values grouped together intact as def̧î-tâla \#88, "lackskmîça."

[^13]:    ${ }^{27}$ Messiaen, Technique, 45 (referring to vol. 2, ex. \#175).
    ${ }^{28}$ Messiaen, Technique, 51, and see examples \#217-21, particularly \#221.

[^14]:    ${ }^{29}$ This subject is explored in R. S. Johnson, ibid., chap. 5, "Christianity and Symbolism," and in Harry Halbreich, Olivier Messiaen (Paris: Fayard/SACEM, 1980), 219-220. Messiaen alluded to interpretations of the numbers 6, 7, and 8 in the preface to the Quartet for the End of Time, and was more explicit in his program notes to the Vingt Regards (see Appendix 3, p. 209) and in his discussions with Antoine Goléa published in Goléa, Rencontres avec Olivier Messiaen (Paris: Julliard, 1960), 109.
    ${ }^{30}$ Griffiths comments [ibid., 123]: "canons in the Vingt regards tend to be in three voices, for obvious theological reasons, and also because a four-part canon of this kind might tax even a Loriod's prestidigitation."
    ${ }^{31}$ Messiaen, Technique, 45, italics added.

[^15]:    32 Messiaen, Technique, 38.

[^16]:    ${ }^{33}$ These family groupings are suggested in the Key to Table 1. Other supplemental information will be found in Table 3: "Themes in the Vingt Regards." (See Appendix 1.)

[^17]:    ${ }^{34}$ The thème d'accords is found in eleven pieces-significantly more than the Thème de Dieu's eight-but its numerical superiority does not translate into greater importance for the listener, as its extreme brevity and densely chromatic contexts tend to hide its use.

[^18]:    ${ }^{35}$ See Halbreich, ibid., 220. The Thème de Dieu and Mode $2 /$ F\# major tonality are, in effect, inseparable-the colors of its harmonies are an integral part of its substance and meaning. The cooler colors of the theme when heard (exceptionally) in Bb major, for example (in No. 11, Première communion de la Vierge), serve to differentiate "God" from the "Child Jesus." The subject is thereby portrayed all the more realistically: the burning intensity associated with the direct contemplation of God is here replaced by a cooler, more introspective version appropriate to the contemplation of the unborn Jesus, still in the womb of the mortal subject of Regard No. 11, the Virgin Mary.

[^19]:    ${ }^{40}$ Messiaen, "Note de l'auteur" (preface) to score of Vingt regards sur l'Enfant-Jésus, (Paris: Durand, 1947), ii.

[^20]:    ${ }^{41}$ Messiaen, "Note de l'auteur," Vingt Regards, i. My translation.
    ${ }^{42}$ A third grouping of four linear successions (SATB) is also immediately apparent. Although not generally found to be pertinent in analysis, this grouping does provide another instance of the set 4-18 (0147) in the bass line, as well as the all-interval tetrachord 4-Z29 (0137) in the soprano. The alto line carries the characteristic melodic sequence G\#-F\#-F\#G\#.

[^21]:    ${ }^{43}$ At its first appearance (No. 2, bars 3-5), and several times thereafter, Messiaen gives this motif two separate parenthetic descriptions: "comme des cloches," and "accords de carillon." In other instances there is no such distinction, the "accords de carillon" label sufficing for the whole complex (see No. 15, (114-5-1\}). As a carillon must necessarily sound like bells, I take the first term to be purely descriptive, and treat the whole complex as one theme.

[^22]:    ${ }^{44}$ See Harawi \{31-2-3), \{48-2-3...\}, \{52-1-1\}, (72-2-3...\}, \{84-1-1...), and (100-4...\}, for example.

[^23]:    46 Halbreich (ibid., 220) identifies the mode as $4^{3}$, but this is true only for the "incipit" theme. The "complete" theme requires the expanded resources of the seventh mode.

    47 Messiaen, "Note de l'auteur," Vingt Regards, i. My translation, italics original.

[^24]:    ${ }^{48}$ Messiaen, Technique, 44.

[^25]:    50 There is also a secondary key of $E$ major implied enharmonically ( $\mathrm{E}-\mathrm{A}^{\mathrm{b}}-\mathrm{Cb}$ ), and this ambiguity is exploited in No. 2, Regard de l'étoile, and in No. 9, Regard du temps.

[^26]:    ${ }^{51}$ In an interview with Antoine Goléa, after listing the influence that certain composers had on his music, Messiaen added, "J'oubliais mes plus grands maîtres, les oiseaux." ["I have forgotten my greatest masters, the birds."] Goléa, ibid., 107.

    52 This parallels the use of actual folk music and synthesized folk style in Bartók's music. The composer himself elaborates in several places, notably (and most recently) in his Conférence de Kyoto. For a more lengthy discussion of the style oiseau and an outside evaluation of the authenticity of Messiaen's transcriptions, see Griffiths, ibid., chapter 10.

[^27]:    ${ }^{53}$ The example numbers enclosed in square brackets refer to examples in volume two of Technique, reproduced in example 34.
    ${ }^{54}$ La Vierge et l'Enfant is piece No. 1 of La Nativité du Seigneur for organ (1935), cited in (my) ex. 34 as Messiaen's example \#77.

[^28]:    ${ }^{56}$ The composer has outlined details of his synæsthesia in prefaces to certain scores (the Quatuor and the Vingt Regards, for instance), in interviews, and most recently and clearly in his Conférence de Kyoto, thus helping to delineate specific associations of sound and color. In fact, Messiaen goes so far as to say that some passages can only be analyzed in terms of colors (Conference de Kyoto, 15). See also Jonathan W. Bernard's "Messiaen's Synaesthesia: The Correspondence between Color and Sound Structure in His Music," Music Perception 4/1 (Fall 1986): 41-68.

[^29]:    ${ }^{57}$ Samuels, Conversations, 23.
    ${ }^{58}$ Mode 6 is also structurally linked to "modes $4-5-7$ " group. Mode 61 , for instance, contains mode 5 entirely, adding to it the notes $\mathrm{E}^{\mathrm{b}}$ and A .

[^30]:    ${ }^{59}$ Messiaen, Technique, 58.

[^31]:    60 This description is applicable to all of the modes.
    61 Mode 2 is "transposable three times" according to Messiaen's reckoning; three different transpositions are possible. The referential spelling of the mode beginning on $C$ is thus the "first transposition." To avoid confusion I have kept this terminology, even though it might appear more logical to designate the referential form "transposition zero," and more intuitively correct to state that "mode 2 is transposable twice."

    62 The nodes (that is to say the notes common to adjacent cells: C, Eb, F\#, and A, in this case) are useful in visualizing both the transpositional and non-transpositional possibilities of a mode: chords will transpose by the interval determined by the nodes, and a chord comprising all of the nodes will be untransposable-surely another instance of what Messiaen calls "the charm of impossibilities."

[^32]:    ${ }^{65}$ Messiaen, Technique, 62. Examples \#347-49 are reproduced earlier in the volume as \#213-15, and the comments found in each place differ only slightly.

[^33]:    ${ }^{66}$ Messiaen, ibid., 35 and examples \#124-26.

[^34]:    ${ }^{69}$ Messiaen, Technique, 64, discussing the relation of the modes to major tonality.
    ${ }^{70}$ Cited in Goléa, Rencontres, 69. My translation.

[^35]:    72 The standard harmonic pattern associated with the thème de Dieu is (as seen in ex. 17, p. 38) as follows: Tonic (twice), Dominant (twice), Improvisatory (cadential movement from V to I), [Tonic]. Its form in both Nos. 1 and 5 consists of this pattern, heard twice, with a concluding coda. Mode 2 harmonies can, of course, be restricted to those that reinforce a

[^36]:    $75 \mathrm{~T}=$ tonic, $\mathrm{D}=$ dominant, $\mathrm{S}=$ subdominant (ii or IV), $\mathrm{DD}=$ dominant of the dominant. The subscripts indicate the duration of the harmonies in bars.

[^37]:    ${ }^{77}$ Although J. W. Bernard cites both transpositions of mode 2 as "blue-violet" ("Messiaen's Synaesthesia," 47), Messiaen himself describes them as "first transposition: blueviolet - second transposition: gold and brown" (Conférence de Kyoto, 7). By definition, then, the colors of mode $2^{2}\left(\mathrm{~B}^{b}\right)$ are warmer than those of mode $2(\mathrm{~F} \#)$, but my own perception is the opposite, notwithstanding.
    ${ }^{78}$ One writer inexplicably analyzes the passage in mode 74 (Reverdy, L'Euvre, 46).

[^38]:    ${ }^{81}$ Cf. note 72, p. $86 f$. The term "subdominant" is used liberally to include all varieties of ii and IV chords; see also note 85, p. 95.

    82 Altered to continuous, even 8th-notes grouped harmonically into two-bar periods.

[^39]:    ${ }^{83}$ Bar numbers, rather than the trinomial system, are used in this case in order to show clearly the (exceptionally) regular phrase structure of the piece.
    ${ }^{84}$ Analysis $\mathrm{N}^{\circ} 5$ in Part Two deals exclusively with this six-bar section.

[^40]:    ${ }^{85}$ Because of Messiaen's systematic use of chords with an added sixth, attempts to distinguish between ii and IV harmonies are virtually meaningless. It seems preferable to generalize by calling B - D\# - F\# - G\# a subdominant chord, in the same way that chords of varying degrees of complexity built on scale degree 5 can all be termed dominant. Furthermore, in this case a single mode $\left(2^{3}\right)$ is used to build both ii and IV chords.

[^41]:    $8^{86}$ A dominant-tonic cadence is not possible within a single transposition of mode 2. Messiaen employs different transpositions of mode 2, in such quasi-tonal contexts (as seen above), to permit a perfect cadence: if mode $2^{1}$ supplies tonic harmonies, for instance, mode $2^{2}$ will provide the dominant harmonies.

    87 The relative minor is referred to enharmonically both as $\mathrm{D} \#$ minor and $\mathrm{E}^{\mathrm{b}}$ minor, and both spellings will be found in the score; the thème d'amour motif at \{153-4-1\} is written in the latter key, while the root position minor triad at $\{153-5-2\}$ is written in the former.

[^42]:    88 The three-chord complex used here is reminiscent of the accords de carillon. The superimposition of the thème d'amour and various (unrelated) dissonant chords is continued in the final piece (No. 20), from \{161-5-1\} on.

[^43]:    90 The terminology and sense of sonata form conveyed in the above analysis are perhaps not altogether inappropriate. Although an arch form (ABCBA + coda) can be readily seen-and both Reverdy (1978) and Halbreich (1980) describe No. 19 thus-it is also possible see the principles of sonata form at work here. In very general terms, Reverdy's A and B would become the first group, the beginning of C the second. The development would encompass the last 9 bars of $C$ plus $B^{\prime}$, and the recapitulation and coda would correspond with her $\mathrm{A}^{\prime}$ and coda. The sonata-form interpretation relies more heavily on tempos and, more importantly, tonal factors, whereas the arch-form interpretation is based more exclusively on thematic considerations.

[^44]:    93 Whether by accident or design, these nine pcs comprise mode 6 except for the $\mathrm{C} \#$.

[^45]:    ${ }^{94}$ Some parts of Noël bring to mind the general mood-and even specific passagesof Debussy's Six Epigraphes Antiques (for piano four hands). Note, for example, the wholetone melodies of Epigraphes Nos. 2 and 3, and compare the descending staccato bass in bar 4 of No. 2 ( $\mathrm{D}-\mathrm{B}^{\mathrm{b}}-\mathrm{A}^{\mathrm{b}} \ldots$...) to $\{93-4-2\}$ ( $\mathrm{D}-\mathrm{C}-\mathrm{Bb}^{\mathrm{b}}$ ), and the rising and falling arabesques of No. 5 and the penultimate bars of No. 3 to $\{93-4-2\},\{94-3-1\}$ and $\{95-1-2$ \}.

[^46]:    ${ }^{95}$ I use the term "C major" loosely, simply implying organization around the triad C-E-G. No implication of either traditional scales or harmonic progressions is intended.
    ${ }^{96}$ As bar numbers are included on the score excerpt reproduced as ex. 57 , they will be used in place of the trinomial brace system of reference. For further analytical detail on Noël, see Part Two, Analysis N ${ }^{\circ} 4$.

[^47]:    97 It might further be noted that the left hand series begins on an $A^{b}$ chord and returns to it twice more in the course of two bars, whereas the right hand series never sounds this triad.

    98 Of course, one can assert various pitch-classes as "fundamentals" for any given transposition. This fact, however, does not rule out the possibility suggested above, and to strengthen the argument, it will be noted that $G$ is the only pc common to the set of possible roots of modes $3^{4}(\mathrm{~Eb}, \mathrm{G}, \mathrm{B})$ and $2^{2}(\mathrm{C} \#, \mathrm{E}, \mathrm{G}, \mathrm{Bb})$. Furthermore, C is the only pc common to the "missing" notes of each mode: $3^{4}$ lacks C, E and G\#; $2^{2}$ lacks C, Eb F\# and A.

[^48]:    99 The seventeen values of tâla 1 coincide strictly with seventeen chords in each voice, but chordal repetition and the rhythmic canon lend an isorhythmic quality to the passage. These repetitive structures return as ostinati in the final twenty-two bars of the piece.

[^49]:    100 While the right hand repeats its four-chord pattern of 8th-notes over and over again (one of the chords is repeated, so there are only three different triads), the left hand begins a process of progressively accelerating values, striking a single, thunderous chord at diminishing intervals, beginning with a whole note value and decreasing the duration by one 16th-note on each successive repetition.
    ${ }^{101}$ See further discussion on p. 126.

[^50]:    102 There is no contradiction here, as mode 5 is simply a truncated version of mode 4. The "characteristic formula" is discussed below under Mode 5. For a series of variations on this formula-none identical to the above example-see the composer's example \#126 which represents the notes of mode 5 "in a large number of different orders." (Messiaen, ibid., 35.)

    103 There are a number of other common features between these two pieces, such as the use of mode 44 , the thème d'accords and other inserted motifs, voice-exchange, and so on. (See Part Two, Analysis $\mathrm{N}^{\circ}$ 2.)

[^51]:    106 Messiaen, Technique, 62, and vol. 2, ex. \#109.
    107 Messiaen uses a similar process in the central portion of No. 13, where "the central C triad [is encircled] with a $\mathrm{D}^{\mathrm{b}}$ dominant sonority in a quasi-Neapolitan fashion" (p. 109).

[^52]:    110 Messiaen takes the precaution of adding a footnote for the performer's benefit: "Bien différencier les 3 sonorités." As discussed on p. 119, each voice is also given a unique dynamic level ( $p p, p p p$ and $p$ ), and the thème de Dieu is separated registerally from the rhythmic canon above, the upper two voices overlapping in exactly the same register.

[^53]:    ${ }^{111}$ It should be added that successive transpositions of a single mode are not typical of the composer, who characteristically used parallel successions of harmonies drawn from a single transposition.

[^54]:    112 This major-third relationship of keys is used prominently in No. 10, Regard de l'Esprit de joie, where the last three tonalities used are $\mathrm{D}, \mathrm{B}^{\mathrm{b}}$, and F \#, thus reviewing these keys in increasing order of importance. The sequence of $\mathrm{F} \#, \mathrm{Bb}, \mathrm{D}$ is also used to precede a final section in F\# major in No. 6, Par Lui tout a été fait.
    ${ }^{113}$ Such symmetries govern, for instance, the structure of the modes, the structure of non-retrogradable rhythms, numerological and formal considerations, and internal key relationships within the cycle.

[^55]:    120 Messiaen, preface to Vingt Regards, ii. My translation.

[^56]:    121 Reverdy, ibid., 40-43.
    122 R. S. Johnson (ibid., 38-39) sees in the form and proportions of No. 6 a reflection of the Hindu rhythm râgavardhana (\#93), conceding that "the total structural balance suggested by the shape" concerned the composer more than mathematical exactitude.

[^57]:    ${ }^{123}$ Halbreich, ibid., 223. My translation.
    124 Paul Griffiths, ibid., 119.

[^58]:    ${ }^{125}$ Messiaen, ibid., iv. My translation.

[^59]:    126 Griffiths, ibid., 119.

[^60]:    127 See note 132, p. 152.

[^61]:    ${ }^{134}$ The pianistic technique, as well as the approximate shape of the ostinato pattern may derive from Ravel's Jeux d'eau, mm. 78-79.

[^62]:    135 This three-by-three deployment is another example of number symbolism.

[^63]:    ${ }^{136}$ Paul Griffiths comments: "On a more pictorial level, [the] progressively measured rallentando in No. 11, 'Première communion de la Vierge', seems to be a stilling so that we may hear the hearbeat of the yet unborn infant in low repeating Fs going at the surely pathological rate of 240 per minute." Griffiths, ibid., 123.
    ${ }^{137}$ See, for example, the opening passage of No. 16, Regard des prophètes, des bergers et des Mages.

[^64]:    ${ }^{141}$ My translation.

[^65]:    ${ }^{142}$ Charles Rosen, The Frontiers of Meaning: Three Informal Lectures on Music (New York: Hill and Wang, 1994), pp. 72, 75f, from lecture \#3 entitled "Explaining the Obvious." ${ }^{143}$ Griffiths, ibid., 120.

[^66]:    144 "Messiaen's titles are not always easy to render into convincing English, but the sense of the word regard in this work involves contemplation as well as the more literal meaning 'gaze'," says R.S. Johnson (ibid., 71). I concur, preferring "contemplation" to the more common translations "gaze" or "glance," the latter bestowing, in my opinion, a perfunctory air to something truly more akin to religious meditation.

