AN ANALYSIS OF STRAVINSKY’S SYMPHONY OF PSALMS
FOCUSING ON TONALITY AND HARMONY

DOCUMENT

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By

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* * * * *

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ABSTRACT

In *Symphony of Psalms*, Stravinsky commands tonality and harmony in new ways that are different from the dictates of classical concepts. The progressive and unique nature of his musical color may stem from the fundamentally different structure of tonality and harmony that underlies his pieces. This piece reflects a neoclassical preference for C major to the point of being called “white-key music.” This is apparent in the fact that C tonality is expanded and developed after it is established as the central tonality of this piece. Meanwhile, bitonality and polytonality, which frequently appear in this piece, destroy the traditional concept of tonality that relies upon ‘single tonality.’ By adding the principles of bitonality and polytonality to the classical beauty of form, Stravinsky succeeds in making a transition from the one-dimensional world of traditional music to a more multidimensional structure. In addition to tonality, new harmonic materials — retrograde (weak motion) that escapes from traditional harmonic motion, harmonies outside of tonality, poly-chords, chords that exclude the third, harmonies that undergo sudden transition, etc.— are boldly introduced. The end result is Stravinsky’s unique neoclassical sound that is firmly established in the history of music.

This paper analyzes *Symphony of Psalms* in order to understand Stravinsky’s use of tonality and harmony, a major characteristic of his neoclassical works.
Dedicated to my parents
I would like to thank my advisor, Professor Marc Ainger, for his enthusiastic support, teaching and encouragement since 2004. Without the immense help from him, this document would not have progressed as it did.

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I am constantly reminded of my mother in heaven and have prayed for my sister who has gone to my mother during this study.

I am grateful to my brother, sister-in-law and my nephews, Hyun-soung and Hyun-jun, for their consistent love and cheering.

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CHAPTER 1

INTRODUCTION

*Symphony of Psalms* by Stravinsky represents an era that treated romanticism, expressionism, and impressionism as antiquarian vestiges of the past. A new generation of young composers was opposed to the vagueness and subjectiveness of these styles. Under the banner of “return to Bach,” they formed a new group that espoused the tradition of pure music and the beauty of the form of classicism. The new group signaled the advent of neoclassical music in the early twentieth century. Igor Stravinsky and his *Symphony of Psalms* were at the center of the movement.

Under the influence of Nikolai Andreevich Rimskii Korsakov (March 18, 1844-June 21, 1908), one of the Russian Five, the musical career of Stravinsky as a composer began as an expression of Russia’s traditional musical color. After this phase, Stravinsky composed neoclassical pieces beginning with *Pulcinella* in 1919. His neoclassical works are famous for accurate and simple expression of the musical ideology of neoclassicism. However, Russian nationalism and the strong primeval musical colors of his earlier
musical period undoubtedly continued to affect his works.\textsuperscript{1} In particular, \textit{Symphony of Psalms} is filled with Stravinsky’s “developed rhythms” as well as unique timbres, all of which are a part of his personal musical language.

This paper analyzes \textit{Symphony of Psalms} in order to understand Stravinsky’s use of tonality and harmony, a major characteristic of his neoclassical works. Whereas my previous dissertation, \textit{An Analytic Study of “Igor Stravinsky’s Symphony of Psalms”}, focused on rhythm and form, this current work focuses on the piece’s tonality and harmony. These two papers, then, provide two complementary angles from which \textit{Symphony of Psalms} may be viewed.

This work starts from a conception that \textit{Symphony of Psalms} is centered on C. This approach may be challenged by previous analysts who have written that the piece has various tonalities such as E and E Phrygian.

All rehearsal numbers used in this document are cited from the \textit{Symphony of Psalms} reduction version by Sviatoslav Stravinsky in 1930 and measure numbers are added by the author for the sake of convenience.

\textsuperscript{1} “Just as characteristic of the ‘Russian period’ is the working with small motifs, especially the rise through a minor third that gives the first movement its goal and the finale its starting point.” – Paul Griffiths, p. 106
Stravinsky composed *Symphony of Psalms* in 1930. The symphony was commissioned by conductor Serge Koussevitzky to commemorate the 50th anniversary of the Boston Symphony Orchestra.\(^2\) The symphony, which is a masterpiece of the neoclassical period, consists of three movements for chorus and orchestra. The composer requires the three-movement piece to be played without break.\(^3\) The title of the symphony stems from the use of the Old Testament’s psalms as the text of the chorus parts.\(^4\) The text, which is Latin, is the following.

The text

The first movement

\(^2\) “One further distinction remaining to be dissolved was that between the divine and human, and this Stravinsky achieved in the *Symphony of Psalms*, right from its disarming double dedication: ‘This symphony composed to the glory of God is dedicated to the Boston Symphony Orchestra on the occasion of its fiftieth anniversary.’”- Paul Griffiths, p.102.

\(^3\) “Note that the three movements which make up the ‘Symphony of Psalms’ follow each other without a break, and that as in the case of the Symphonies of Wind Instruments the term ‘symphony’ is used here too merely to indicate an ‘ensemble’ of musical strands and does not imply any particular form in the classical sense of the word.”- Roman Vlad, p. 157

\(^4\) “For the text of this Symphony, Stravinsky selected from the Vulgate verses 13 and 14 of Psalm 38, verses 2, 3 and 4 of Psalm 39 and the whole of Psalm 150.”- Eric Walter White, p. 136
Latin:
Exaudi orationem meam, Domine, et deprecationem meam.
Auribus pereipe lacrimas meas.
Ne sileas, ne sileas.
Quoniam advena ego sum apud te et Peregrinus, sicut omnes patres mei.
Remitte mihi, prius quam abeam et amplius non ero.

English translation:
Hear my prayer, O Lord, and with Thine ears consider my calling: hold not thy peace at my tears.
For I am a stranger with Thee: and a sojourner, as all my fathers were.
O spare me a little that I may recover my strength: before I go hence no longer to be seen.

The second movement

Latin:
Expectans expectavi Dominum, et intendit mihi.
Et exaudivit preces meas; et exudit me da lacu miseriae, et de lato faecis.
Et statuit super petram pedes meos: et direxis gressus meos.
Et immisit in os meum canticum novrum, carmen Deo nostro.
Videbunt multi, videbunt et timabunt: et aperabunt in Domino.
English translation:

I waited patiently for the Lord: and He inclined unto me, and heard my calling.
He brought me also out of the horrible pit, out of the mire and clay, and set my feet upon the rock, and ordered my goings.
And He hath put a new song in my mouth: even a thanksgiving unto God.
Many shall see it and fear: and shall put their trust in the Lord.

The third movement

Latin:

Alleluia.

Laudate Dominum in sanctis Ejus.
Laudate Eum firmamentis virtutis Ejus.
Laudate Dominum. Laudate Eum in virtutibus Ejus.
Laudate Eum secundum multitudinem magnitudinis Ejus.
Laudate Eum in sono tubae.
Laudate Eum. Laudate Eum in timpano et choro,
Laudate Eum in cordis et organo;
Laudate Eum in cymbalis bene jubilantionibus.
Laudate Eum, omnis spiritus laudate Dominum.

Alleluia.
English translation:

Alleluia.

O praise God in His holiness:
Praise Him in the firmament of His power.
Praise Him in His noble acts:
Praise Him according to His excellent greatness.
Praise Him in the sound of the trumpet:
Praise Him upon the lute and harp.
Praise Him upon the strings and pipe.
Praise Him upon the well-tuned cymbals.
Let everything that hath breath praise the Lord.
Alleluia.

The orchestration of this symphony is characterized by the exclusion of clarinet, violin, and viola and an expanded use of woodwind instruments. This work is played by five flutes (fifth doubling piccolo), four oboes, English horn, three bassoons, contrabassoon, four F horns, piccolo trumpet, four C trumpets, three trombones, tuba, timpani, bass drum, two pianos, harp, cello, contrabass, and a four part chorus (soprano, alto, tenor and bass). The composer urges the use of children’s voice for the upper two parts (soprano and alto) of the chorus.

The world premier of Symphony of Psalms was made on December 13, 1930, by the ‘Societe Philharmonique de Bruxelles’ conducted by Ernest Anserment. The
American premier was made by the Boston Symphony Orchestra on December 19 of the same year.
3.1 The use of C tonality as the tonal frame

Overall, *Symphony of Psalms* was composed by using the key of C as the tonal frame. Centered on C, the C major scale and the C minor scale form the skeleton of the three movements. Partial transitions to other tonalities such as the Db major scale or the Eb major scale occur. Evidence supporting this view includes the use of Ab and F#; the key of E minor; and the beginning and closing chords of each movement, all of which allude to C tonality.

3.1.1 Ab and F# allude to C tonality

The key of E minor is widely known as the central tonality of the first movement, as Vincent Lewis Cole has argued in the following statement:
However, in the introductory part, the third of E minor chord deliberately emphasizes G, the dominant in the key of C. Because of resulting overtones, a powerful oscillation of a G triad can be heard. Furthermore, the B diminished 7th chord contained in the key of C minor makes frequent appearance. Particularly, that C is the tonality that dominates the whole piece is evident in the frequent appearances of Ab and F# in the introductory parts. These notes form the core of the piece and are frequently used throughout the three movments (Figure 3.2, p.11).

The introductory part of the first movement begins with an E minor block chord built on overlapping thirds. Then, centered on Ab and F#, an arpeggio of a Bb7 chord and a G7 chord appears. At measure 8, an E minor block chord reappears as the cadence. Ab and F# (Ab in particular) are notes that consistently play the important role of supporting a C tonality from the beginning to the end of the first movement. At this moment, Ab and F# are augmented sixth intervals that are identical to the characteristic notes of the augmented sixth chord that appears in C. The notes play the traditional

---

5 Cole, p.4
6 “The Bb7 and G7 chords are dominants leading to the remainder of the symphony, Eb and C.” – Cole, p. 4
7 “A barking E minor triad-characteristically spaced-is followed by toccata figuration alternates dominant sevenths of E flat and C” “At this point we can’t tell whether these implied keys are major or minor; indeed, we probably hear the B flats as A sharps and therefore as appoggiaturas to the B naturals of the dominant sevenths in C.” (This means that the part can be analyzed by B diminished 7th Chord—B natural D F Ab— and that the part become even closer to C tonality.) – Wilfrid Mellers, p. 19.
8 “The orchestral introduction to the first movement is punctuated several times by a short sharp chord of E minor.”- Eric Walter White, p. 13.
9 As shown in the figure below, an augmented sixth chord refers to a chord which includes the interval of an augmented sixth that appears to simultaneously form an upward leading tone and a downward leading
harmonic function. By moving to G, the third of the E minor chord, the two notes undergo the normal process of resolution identical with the traditional function of an augmented sixth chord. In particular, the E minor chord repeats G three times in the process. And an oscillation that is similar to the G triad, the original consonance of the two notes, is created. At the beginning of the first movement, the E minor chord in 1/4 time appears three times (measures 4, 8, and 14) at the end of the phrase and plays the role of alluding to a C tonality (Figure 3.2).

tone of a minor second relationship immediately before the dominant. Traditionally, there are three types of augmented sixth chords: the augmented sixth chord (Italian 6th chord), the augmented six-five chord (German 6th chord), and the augmented four-three chord (French 6th chord) (Figure 3.1).

Figure 3.1 Chords that include an augmented sixth
However, the augmented sixth interval of Ab and F# in the introductory part only once—at measure 8—undergoes complete resolution toward an E minor triad, which is characterized by a strong G major triad tendency. Measure 4 is slightly different and plays only an alluding role. In measure 10, F# is moved downward to F natural and is deviated from the normal path toward G. At measures 11-12, a transition to Eb major occurs. Immediately before the leading tone D resolves to Eb (measure 13), the E minor triad reappears and a return to C tonality, the central tonality, is carried out.
At the end of first movement, Ab forms a macro-bass line toward G to support a C tonality. The new bass line created from E in measure 65 progresses between E and Ab until measure 71. Then, at measures 72-74, two notes, E and D, are introduced. Finally, diatonic sequential downward movement is carried out at measure 75. At the first beat of measure 76, Ab, which dominated the whole first movement, makes a sequential downward movement to G, the final note, to end the first movement. In this part, the frame of the melodic bass line consists of a motion from Ab to G. Although resolution to a tonic chord is postponed until the next movement, a clear ending of C tonality is shown.

In the second movement, which is composed as a double fugue, Ab and F# are used as notes that support tonality. The first subject of the second movement is introduced in C minor by monophony in the oboe. Although the tonality and harmony can be clearly identified, leaps are too excessive and the motion of melody is devoid of flow and resolution carried out by tension and relaxation, which is the traditional method of melody formation. Instead, a continuous abnormal motion that merely provokes tension is carried out. To create a chromatic melodic line, dissonant notes are intentionally used. As shown in the motion of the melody by the oboe at measure 5, the settling note, G, of the melodic line, Bb-A natural-Ab, appears in newly introduced instruments. In other words, the Ab and F# that appeared frequently in the introductory

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10 “In the second movement, he(Stravinsky) takes two interlinked minor thirds and, remembering the little phrase in Eccentric, inverts the second third to form the subject of the instrumental figure – C rising to Eb, rising to B and falling to D.” – Eric Walter White p. 135
“The subject was developed from the sequence of thirds used as an ostinato in the first movement.”- Stravinsky and Craft p. 45
“Stravinsky clearly casts the subject of the first fugue in C minor and the subject of the second fugue in E flat major.”-Donald Chittum, p. 289.
part of the first movement reappear at the end (measure 5) of the first subject of the second movement and form an ending that alludes to C tonality by advancing to ‘answer’ in the G minor key (flute) that follows. Furthermore, even at the end of second movement, Ab (measure 86, upper part of beat 4) heading to G remains as a trace that continues to allude to C tonality.

In the third movement, these two notes (Ab and F#) are used as an ostinato in the bass to imply C tonality. At measure 24[3], the previous chord (C7) is maintained and a complete transition to the key of C major is made. Suddenly, a ‘rhythmic motive’\textsuperscript{11} that vitalizes the orchestra appears. The motive, which is played by horns and bassoons, has a very unique timbre. This forms the introductory part of the allegro section and implies that the whole third movement is filled with a fast and vibrant rhythmic sound unique to Stravinsky. C major is the tonality that controls measures 24-36. The most important characteristic of this part is the reappearance of augmented sixth interval between Ab and F#. As in the introductory part of the first movement, the two notes function as an augmented sixth chord that heads to dominant, G. At measures 25-29, the three notes (Ab, F#, G) are used repeatedly in turn as an ostinato in the bass instruments.

At measures 115-125 of the third movement, a return to C major, which is the central tonality of this work, pursues balance and stability in the piece. In the

\textsuperscript{11} “There is also a strong similarity of this chord to the E minor punctuation of the first movement. The similarity includes wide spacing, unusual density in the low register that balances the treble density, and a sparsely populated interior.” – Cole, p. 29.

“I began with Psalm150 and my first notation was the figure that bears such a close resemblance to Jocasta’s ‘Oracula, oracula.’” – Igor Stravinsky and Robert Craft, P. 44.
instrumental bass part of this portion, the notes Ab and F# reappear in melodic forms. As discussed above, interval structure and resolution processes that are identical with the characteristic notes of the augmented sixth chord in C major are shown. The extremely extended melody line of G – Ab – G (measures 157-159) and G – F# – G – Ab – G (measures 161-162), which appears in the horns of measures 157-162, is a very interesting clue that allues to C tonality.\footnote{Further decisive evidence is that the final chord (beat 3 of measure 162) of the last climax is composed of a C major seventh chord.} As discussed above, Stravinsky frequently uses the motion from an augmented sixth interval to the dominant as a means of suggesting C tonality. This is because such motion is a considerably progressive and sophisticated treatment of tonality and also agrees with the direction of development of neoclassical harmony. Of course, this may be a result of Stravinsky’s habitual and unconscious selection of harmony. Considering consistent progressive attempts to create new sounds—such as diverse bitonal and polytonal harmonic motion and bi-voice part motion, etc.—such voice leading was probably intentional.

3.1.2 The key of E minor as an allusion to C tonality

The central tonality in measures 15[2]-25 of the first movement is also recognized as E minor.\footnote{\textit{"After a surprise climax in C major, the closing chorale follows in Eb Major."} – Cole p.40.} Such a perception arises from the E minor block chord, which

\textsuperscript{12} “After a surprise climax in C major, the closing chorale follows in Eb Major.” – Cole p.40.

\textsuperscript{13} “E minor chord forms the tonality of the movement.” – Cole, p. 4
frequently appears in the introductory part, and the melodic line placed on the upper voice parts of this section. However, the monophony and melodic bass line that appear from measure 15 sufficiently alludes that this section is closer to the key of C major.

In measures 15-17, a strong E pedal point in the cello and double bass can be considered as the placement of the third of the C major triad, in the bass of the instrumental part. In particular, the quarter note melodic line (2/4 E D/ DC/CB) of the piano part, which is placed as a counter-melody against the bass part, shows a clear C major cadence. As shown in the figure below, the outer voice motion of measures 18-21 creates a melodic line in the key of C major (Table 3.1).

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<thead>
<tr>
<th>Measure</th>
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<tr>
<td>upper voice part melody</td>
<td>B-C</td>
<td>C-</td>
<td>B-</td>
<td>B-C</td>
</tr>
<tr>
<td>bass</td>
<td>F</td>
<td>E</td>
<td>G-F</td>
<td>G</td>
</tr>
<tr>
<td>Chord</td>
<td>V7 (3rd Inversion)</td>
<td>I (1st Inversion)</td>
<td>V-V7 (3rd Inversion)</td>
<td>I (2nd Inversion)</td>
</tr>
</tbody>
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Table 3.1 Melodic lines of the 1st movement, mm. 18-21

In this section, it is necessary to deal with the basis for selecting the notes of the inner part. In measures 15-17, the inner voice-part emerges as the main melody (At the

“Thus from the outset, Stravinsky established the keys of E, E flat, and C as the important tonal pillars of the piece.” – Donald Chittum p. 288.
same time, the arpeggiated upper voice creates a C major cadence.). The G-F, E-D melodic motion of measures 15-16 offers a complete resolution of tonality. The Bb on the second beat of measure 19 can be considered a conjunct changing note which proceeds to B natural. In particular, the Ab that appears frequently in measures 20-25 functions in the altered chord (borrowed chord) as the flatted sixth note or the seventh note of B diminished 7th chord. This note is a reappearance of the Ab, which appeared in the introductory part. This means that the section maintains C major tonality.

To summarize the first part of the first movement, it can be said that the dominant chord of C tonality is maintained from the first measure to measure 14 (Rehearsal [1]) whereas the tonic chord of C tonality is maintained from measure 15 to measure 25 (Rehearsal [2] and [3]). Overall, the two parts belong to the long process of consolidating C tonality (Figure 3.2, p. 11).

A C major arpeggio appears in measures 49-52 of the first movement. On the fourth beat of measure 52, an E minor block chord with three repetitions of G reappears to form punctuation. Once again, Rehearsal [7]-[8] and [9] establish C tonality by respectively showing a wide motion from dominant to tonic. Throughout this first section, the oscillation of an E minor chord with a repetition of G is prevalent and in terms of tonality, this suggests the maintenance of the key of C major.

Measures 65-78, which begin section 3, form both the climax and the closing section. Measures 65-67 are obtained by extending and modifying the figure of measures 49-52 by an octave and form the climax of the first movement. The E minor chord of the chorus, which overlaps with the C major chord (CM: I6) of the accompaniment,
practically function as I6 (tonic triad in first inversion) in the key of C major. All thirds are removed (forming open chords) from the E minor chord used in the voice part of measures 66-67 to strengthen the C major tonality.

In the third movement, E minor tonality that alludes to C tonality appears, as has been discussed above. Furthermore, a mismatch between formal tonality and functional tonality occurs. Outwardly, measures 53-64 are in the key of Eb major. However, these measures’ practical tonality is C minor. Measures 104 [13]-109 are in C minor in theory but are in Eb major in practice. In the section, the pitch C is used in the lowest instrumental part. Theoretically, C minor is definitely the key in use. However, the sound that is clearly audible is the vivid overtone of Eb as a far superior duplication of Eb is made. This aspect of tonality where theory and practice diverge could be considered an aspect of bitonality, which will be discussed in a later section of this research.

3.1.3 The final cadences of each movement allude to C tonality

Each movement of *Symphony of Psalms* begins with C (first movement–C major scale, the second movement–C minor scale, the third movement–C major scale) and ends in C tonality. The ending chord of the first movement is a dominant chord (G triad) and the ending chord of the second movement is a C minor 11th chord (1st inversion) to facilitate a transition to the key of C in the next movement. The final cadence of the third movement is a clear C triad as if to declare the fact this piece is of C tonality.
As stated above, from the first measure to measure 14 [Rehearsal 1] in the first part of the first movement, the dominant chord of C forms the core harmony. In Rehearsal [2] and [3], the tonic chord of C functions as the core harmony. Overall, this part is oriented toward C major tonality. In addition, the ending chord of the first movement forms a clear triad on G. This is to form a perfect authentic cadence with a C minor chord, the first chord of the second movement that follows. This is further evidence that C key is the tonal framework of this musical piece.

In measures 70-83 of the second movement, which is a double fugue, a sudden shift to homophonic texture is made to form the episode. After a measure break, a powerful orchestral tutti of dotted notes that originate from the instrumental fugue subject and a new chorus melody reverberate as homophonic texture. This last episode, created by Stravinsky’s unique idea, plays a role that is extremely similar to a coda, which decorates the end of the homophonic section. This unrestricted idiom of ending the fugue with homophony is an example that shows the neoclassical ideal of combining tradition with modernity. In particular, this passage begins with a stretto by an orchestral fugue subject in G minor. Decorating the closing section of the second movement with an episode in G minor key can be viewed as a choice that considers the connection with the third movement that follows. Just as the first movement ended by the complete G triad to function as the dominant chord of the second movement that began with C minor key, the

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14 Measure 74-78: “The bass, massively reinforced by a tube, at last descends from E, and makes a stepwise Phrygian approach to the triad of G major with which the movement ends. We hear this G major both as a fulfillment of Man’s E minor prayer key, and as the dominant of God’s C. In that sense, it is not only an end but also a beginning: for the second movement is centred on C.” – Wilfrid Mellers p. 20
15 Howard Stephens, p. 14
last portion of the second movement uses a tonality that facilitates a transition to the next movement. Of course, the ending chord of the second movement is not as strong as the dominant chord of the beginning of the third movement, which is written in C minor. In particular, unlike in the previous sections, the final cadence chord of the orchestra uses Eb as the fundamental note. In addition, upper instrumental parts form a fourth chord (quartal harmony) whereas as lower instrumental part forms a fifth chord (quintal harmony). When the two chords are superimposed, the result is a C minor 11th chord that is composed of five notes: Eb, F, G, Bb, and C. Because Eb is placed in the lowest part, this chord becomes a first inversion C minor 11th chord. This ending chord gives further support that a return to C tonality is made at the end of the second movement.

After beginning in C minor, the third movement undergoes diverse tonality changes. At measure 99 [12] a return to the slow tempo meter of the first part is made. After a short two-measure interlude (measures 100-101), the ‘Alleluia’ chorus is once again introduced. The chorus is marked by a deep religiosity. The bass of the interlude is written in an upward scale (Gb-Ab-Bb) of wholetones for bassoon and contrabassoon. The structure of the chord is considerably unclear as the upper voice-part uses an F minor 7th chord. In addition, as in the case of the first section (measures 1-3), it is by the bass motion from G to C introduced by the ‘Alleluia’ chorus that the piece returns to C minor, which is the initial tonality (measures 102-103). This bass motion from G to C, shows an authentic cadence (V-I). However, if G is considered a pedal point, the core harmonic motion at this point is ii 64 (ii in 2nd inversion) – i7, which is closer to a plagal (A-men)
cadence. In other words, this moment is a combination of two cadences: authentic and plagal (Figure 3.6, p. 45).

As for measures 205-212 (the final section), the instrumental bass forms a cadence on Bb in measures 204-205, the pitch that dominates the ending, and the bass line centered on G, the dominant of C tonality, is placed below the voice-part of ‘Alleluia, Laudate, laudete.’ Against the C minor tonality of the voice part in measure 209, the instrumental bass realizes the last bitonality with a C major arpeggio. Finally, when the‘Dominum’ chorus on a unison C sounds, the orchestra plays a complete C triad as the ending chord of the entire tune. (The piece ends calmly as a transition from the sound of C minor tonality to the orchestral sound of C major key is made.) The last chord, a C major triad, aptly expresses both religious piety and the neoclassical spirit. The “dramatic effect of Picardy 3rd,” comparable to the G chord of the ending section of the first movement, is carried out. The C major chord, which is extremely dramatic, seems to declare the final tonality pursued by the three movements as a whole.  

The overall structure of the piece can be analyzed as the follows: to summarize, the ending chord of the first movement is a dominant chord (G) with a Picardy 3rd that forms a half cadence. In contrast, the C chord at the end of the third movement is a tonic chord (C) with a Picardy 3rd that forms an authentic cadence. The two movements can be respectively considered as a ‘question’ and an ‘answer’ by a half cadence and an authentic cadence. In such fashion, the whole piece establishes a perfect and well-balanced tonality.

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16 “The last echo of the opening ‘Alleluia’ dies away on a perfect chord of C major whose perfection remains unmarred.” – Roman Vlad, p. 163
3.2 Polytonality and bitonality

As shown in the table below, a tendency of polytonality or bitonality appears in *Symphony of Psalms* in addition to the classical concept of mono-tonality (Table 3.2).

**Key Relationships in Symphony of Palms**

**The 1st movement**
Mm. 1-59 (2nd measure after [11]): C major (mm. 26-32: nearly Octatonic scale on C#, mm. 33-47 (2nd measure before [9]: complete C# Octatonic scale)
Mm. 60-62: Eb major
Mm. 63-78: C major (Half cadence with complete G triad (Picardy 3rd))

**The 2nd movement**
Mm. 1-5: C minor
Mm. 6 [1]-12: G minor
Mm. 13[2]-17: C minor
Mm. 18[3]-23: G minor
Mm. 24 (1st measure after [4])-32: Eb minor
Mm. 33 [6]-38: Bb minor
Mm. 39[7]-42: Eb minor
Mm. 43-46: Bb minor
Mm. 47-49: Eb minor
Mm. 50: G major
Mm. 51: Eb minor
Mm. 52[10]-60: Polytonality (Sop.: F minor, Alt.: Bb minor, Ten.: Eb major, Bass: Ab major)
Mm. 61[12]-65: Bb minor
Mm. 66[13]-70: C minor
Mm. 71[14]-83: Bitonality (choral part and orchestral accompaniment: Bb major key, after that, independent atonal tonalities appear on instrumental bass part of Fugue subject.)
Mm. 84[17]-88: C minor
The 3rd movement
Mm. 1-20: C minor key (Bitonality with C major)
Mm. 21-36: C major
Mm. 37-52: Bitonality
Mm. 53-64: Eb major (closely modulated)
Mm. 65-98: C major (mm. 79-80: dissonant cluster)
Mm. 99-109: C minor
Mm. 110-114: Bitonality (F major + D major)
Mm. 115-125: C major
Mm. 126-130: Bitonality (upper parts: E major, instruments lower part: C major)
Mm. 131: E major
Mm. 132-133: Bb major
Mm. 134-137: Eb major
Mm. 138-139: E major (identical recapitulation of previous mm. 130-131)
Mm. 140: Bb major
Mm. 141: E major
Mm. 142-143: Bitonality (E major, instrumental bass: close to E minor)
Mm. 144-146: Bitonality (upper parts: E major, Bass: B major)
Mm. 147-149: Bitonality (upper parts: F major chord, lower parts: Gb chord)
Mm. 150-154: G major
Mm. 155-156: Bitonality (voice parts: G minor, instrumental parts: G major)
Mm. 157-162: Eb major (suggestive key appeared in advance)
Mm. 163-174: Eb major (real key)
Mm. 175-182: Ab major (similar to Bb Dorian mode)
Mm. 183-205: Eb major
Mm. 206-208: C minor
Mm. 209: Bitonality (voice parts: C minor, instrumental parts: C major)
Mm. 210-212: C major

Table 3.2 Key relationships in Symphony of Psalms
3.2.1 Polytonality

In measures 11-13 of the first movement, arpeggios and scales from traditional tonality continue and the polytonal phenomenon appears. Harmonic ambiguity is generated to form the tonal framework of the whole piece.

From measures 52 to 60 of the second movement, an extreme form of polytonality can be seen. Unaccompanied ‘stretto’ appears in chromatic motion in the chorus part (measure 52 [10]). Movement of each voice-part takes the form of a ‘4-voice canon’ based on tonalities that differ from each other. In other words, polytonality is achieved as soprano is in F minor, alto is in Bb minor, tenor is in Eb minor, and bass sings a contrapuntal melody in the key of Ab major. The soprano, alto and tenor voices begin with minor tonalities whereas bass voice begins with major tonalities. Soprano forms a dominant relationship with alto, whereas tenor forms a dominant relationship with bass. Soprano begins with F minor, a tonality that is a perfect fifth above alto, which is in Bb minor key. After two measures, a transition to Ab major is made. Here, the originally intended tonality by the soprano is Ab major, as it is in the case of bass voice-part. However, the soprano line actually begins with F minor to abide by the counterpoint convention that necessitates the maintenance of a dominant relation with the alto voice-part, which is the answer. Alto and tenor are the voice parts that maintain a minor tonality from the beginning to the end. Therefore, from measure 54 through 60 are composed of three tonalities, Ab major – Eb minor – Bb minor – Ab Major from the lower voice-part.

17 Kang, p. 29  
18 Kang, p. 36.
The overall resulting sounds can be divided into incidental harmonic sounds and non-harmonic sounds. However, the result is a chaotic sound that diverges from the traditional harmonic motion.

Stravinsky’s polytonality can be conjectured as a result of classical thinking that values counterpoint. Harmony is created by a contrapuntal thinking based on horizontal analytical logic rather than a harmonic thinking based on vertical analytical logic. Unique neoclassical sound results with the use of ‘incidental’ harmonic and non-harmonic sounds, which are created when melodies of each voice-part are simultaneously generated in different tonalities. In this canon section, each voice-part uses melodies of different tonality to express multitonality. In contrast, multitonality in other parts such as measures 11-13 of the first movement is created by a combination of several instrumental-part groups. Here, the vertical harmonic system of each voice-part group and horizontal (counterpoint) melodic system of each group produce effects simultaneously. As a result, the formation of a musical piece based on harmony as well as counterpoint is carried out.

3.2.2 Bitonality

Strong bitonality can be found throughout the entire musical piece. Bitonality is first found in measures 71-83 of the second movement. The following is an analysis of the choral and orchestral parts.
Choral part (measures 71 [14]-83):

In the case of soprano and alto, Bb is the central pitch. Notes coalesce by unison or octave and balance between voice-parts is achieved. Similarly, Bb is the central pitch for tenor and bass. These two voice-parts’ notes at times coalesce by unison and achieve a balance between them. Soprano and tenor meet mostly by unison. However, in the ascending part, the interval of a second is used to create dissonance and to control tension. When a large leap is made by soprano, tenor remains on the same pitch to help maintain balance between the voice-parts. Alto and bass often agree in unison. When alto carries out disjunct motion, bass carries out conjunct motion or remains on the same note to help achieve balance between the voice-parts. The structure of this section is characterized by a four voice melody with monophony shaped by duplicaton of some notes. Melodic movement is carried out within the range between Bb and F natural, centered on Bb. With some exaggeration, this part can be viewed as a section of long steady Bb sound. After the chord that contains F#, which is the tonal characteristic note of G minor, the G minor triad, which is the consonance, does not appear. Instead, immediate motion from the F chord to a Bb chord, which is a process of stabilizing a Bb tonality, appears (voice-part in measures 72-73 and 80-81). This means that the establishment of a G minor tonality is not clearly shown; instead, a sudden change in the framework of tonality—a sudden shift to a Bb major cadence—is carried out. Considering that Bb is the fundamental note of the beginning and the end of the choral phrase, that Bb is the central note of the 4 voice-parts, and that perfect establishment of G minor tonality is not carried out, the chorus part can be judged as having strong Bb major tonality. In summary, the chorus part is a monophonic part that emphasizes the horizontal melodic line. As shown
in the following figure, measures 76-79 can be treated as a G major section. However, the consolidation of tonality is avoided and chords that exclude the third are often used. Therefore, the tonality is established only in appearance (Table 3.3).

<table>
<thead>
<tr>
<th>Measure 76</th>
<th>Measure 77</th>
<th>Measure 78</th>
<th>Measure 79</th>
</tr>
</thead>
<tbody>
<tr>
<td>G major key</td>
<td>ii - I</td>
<td>V7 (3rd inversion)</td>
<td>V7 - iii7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii - vii7/V (third exclusion, 3rd inversion)</td>
<td>(the first chord excludes third and is in 2nd inversion; the second chord excludes third and is in 3rd inversion)</td>
</tr>
</tbody>
</table>

Table 3.3 Bitonality in *Symphony of Psalms*, the 2nd movement, mm. 76-79

Instrumental part (measures 71[14]-83):

The instrumental section can be divided into two parts, one of which serves the function of accompaniment to the chorus, and the other which provides the subject of the instrumental fugue in the second movement. The orchestra’s accompaniment function begins with G minor, in contrast with chorus, which begins with Bb. After carrying out measures 71-72 in canon style, the subject of the instrumental fugue in the second movement is introduced to the instrumental bass part to establish an independent bass melodic line. In the upper instrumental part, the accompaniment for the chorus creates a contrapuntal figure against the subject melody of the instrumental fugue. The choral voice-parts and upper instrumental part, playing the role of accompaniment, are
integrated in the same foundation of tonality (Bb). Broadly speaking, these parts, in terms of structure, can be viewed as a counter-subject against the subject melody of the instrumental fugue in the instrumental bass introduced two measures later. Here, the melody of the bass, introduced as the subject of instrumental fugue, is altered within independent tonality to achieve a dynamic development or to seek development of a similar subject melody. In measure 73, measure 77 and measure 80 of the instrumental bass part, subject of the instrumental fugue is reproduced as a similar figure. Then, immediately before the closing chord (measures 84-86), the subject figure forms the cadence part by bass ostinato, which is used three times as the echo of 1st subject.  

Conclusion:

This section can be considered a bitonal section with the appearance of Bb major in the choral and instrumental accompaniment parts and independent tonality in the instrumental fugue subject in the instrumental bass part, which is introduced two measures later.

The third movement is the movement that tries diverse approaches to tonal methods. In particular, “the voice-part and the orchestra are engaged in outstanding structure, through exchange, contrast and cooperation, and bitonality, the most

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19 “But in the movement’s brief coda… the ‘devilish’ tritone is exorcised and the crucial F flat is given another meaning.” “Consequently, the fourth note of the ostinato is F flat, which is notated as E natural (though not in the piano reduction): and E natural, which the prayer-and-intercession note in the first movement, is the major third of God’s C.”- Wilfrid Mellers, p. 23
characteristic aspect of tonality in the piece, is most clearly expressed in the movement."

In measures 6-23 of the third movement, it is shown that a bitonal phenomenon can appear in the minor and major (for instance, C minor and C major) of parallel keys. Although this section consists of a long duration of a single tonic chord, a very subtle bitonality (the voice-part is in C minor whereas the instrumental part is in C major) is generated as the two parts use a different quality third of the chord. The two parts are composed mostly of notes which can be integrated into a triad. Sharp dissonance caused by the clash of the major against the minor third is avoided by time lag (measure 6) or omission (voice part in measures 7-8 and instrumental part in measure 9). Measures 12-20 completely avoid conflict with the third (Eb) that exists in the voice-part by using an open chord that eliminates all thirds in the instrumental part. The voice-part thus appears to dominate the instrumental part. However, in the closing section of this phrase, it is the voice-part that omits the third (Eb) and the voice-part ends with a unison C. The instrumental part ends by reverting to a C triad that includes E natural. Therefore, in the closing section of the phrase, a dramatic reversal between the voice-part and the instrumental part is made. Discussing which of the two tonalities, C minor or C major, is stronger in this section is a tough issue. Overall, it could be said that this is a C minor chorus section with some characteristics of C major tonality. Strictly speaking, the final chord (measure 21) of this phrase is a secondary dominant 7th chord of IV, V7/IV on C. Bb, which is the seventh, functions as the bridge linking this chord with the next chord.

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20 Kang, p.53
21 "This slow introduction ends with a unison C from the choir and a chord of C major on the cellos and double-basses, without the fifth (G) but with the minor seventh (B flat)." – Eric Walter White, p. 137.
Measures 37 to 52 in the 1st movement create a comparatively long and clear bitonal section. The bass instruments play in C major while the upper orchestral parts carry out a long motion from IV chord to V chord in A major. In upper instrumental parts (Flutes, Trombone, Piano, and Cello) of measure 44, a chromatic scale is used. In measure 45, a brief escape from A major is made. Overall, however, A major is maintained. In measure 48, lower instrumental parts abandon C major and entire tonalities join the A major key. However, while a single integrated tonality emerges, two harmonies simultaneously appear in measures 48-50. Therefore, a tonality that has a vague and surreal color is maintained and the traditional single tonality is still avoided (Table 3.4).

<table>
<thead>
<tr>
<th>Measure 48</th>
<th>Measure 49</th>
<th>Measure 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper instrumental parts</td>
<td>IV vi (root naturaled)</td>
<td>IV vi IV</td>
</tr>
<tr>
<td>Lower instrumental parts</td>
<td>V7(1st inversion) -</td>
<td>- - -</td>
</tr>
</tbody>
</table>

Table 3.4 Bitonality in *Symphony of Psalms*, the 3rd movement, mm. 48-50

A similar bitonal section appears one more time in measures 126-130. In this section, while the chorus and upper instrumental parts maintain a figure in an E chord, the instrumental bass part forms an ostinato using F and G. The upper instrumental parts can be considered in E major by the continuous E major triad. The instrumental bass part
is in C major, considering the process of resolving to I6 and the scale-tones (F-G-A-B) appearing on the first beat of measure 130. In terms of bitonality and bass rhythm, its form is extremely similar to the previous section (measures 110[14]-112). Bitonality also appears at the end of the third movement. In measure 209, the lower instrumental part performs an arpeggio of a C major triad, while the four voice-parts are still in C minor. This kind of bitonality is the reappearance of the first part of the third movement.

3.3 Other types of extended tonality

In *Symphony of Psalms*, new tonal materials produced by diverse methods appear, including sudden transition, transition to symmetrical tonality, and transition with traces of the tonality of the previous section.

3.3.1 Sudden transition

In measures 63-64 of the first movement, the tune again makes a transition to the key of C major. The C# of the trombone and tuba is engaged in an enharmonic relationship with Db, the last bass instrumental note of the previous measure. It appears to play the role of a common tone (pivot note) in this section’s transition. However, as both notes fail to become chord tones, their role remains illusory and in reality has
nothing to do with transition. Therefore, sudden transition, a tonal technique unique to Stravinsky, occurs in this section. Stable and logical transitions using pivot notes are thus abandoned as a vestige of the past.

In measures 53-64 of the third movement, the soprano \(^{22}\) begins with the same melody that was sung by the altos in the first movement (Rehearsal [4]).\(^ {23}\) Now, however, melody is altered to use major second connective motion rather than minor second connective motion. The alto melody, ‘Lauda-te,’ which begins two measures later, progresses in major second motion in a contrary motion to the soprano. The tonality of this section can be considered as Eb major. Tonality change, however, occurs extremely frequently and no single tonality is maintained consistently. The harmonies in measures 53-54 can be analyzed as vi7-V764-vi6 (natural) 43-V/ii (measure 53), vi7-I64-V/ii (measure 54) in Eb major. As shown in the example below, the deceptive and the authentic cadences are used interchangeably in Ab major and C major in the upper instrumental parts.


Such illogical harmonic motion and tonality change in the upper instrumental parts are the most important characteristic of this piece. The radical pattern of harmonic

\(^{22}\) “The foreground choral material at [6] has some of the characteristics of Russian liturgical chant, and is not unlike the accompanying ost inati.” – Cole, p. 31

\(^{23}\) “The trebles enter slowly and softly with the lamentation theme from the first movement- like the device of the interlinked thirds, this has now changed from minor to major- and the altos join in with a freer variant of the theme.” – Eric Walter White, p. 137
change stated above (measures 53-54) reappears three times (55-56, 57-59, 60-62) in a similar form. In particular, this pattern appears in one-measure expanded form in measures 57-59 (two measures before Rehearsal [7]) and, in measures 58-59, develops into a tone cluster pattern by denser dissonant intervals with the upper woodwind parts.

In measures 110[14]-114 of the third movement, an F triad in the harp and clarinet and a ‘V6–I’ pattern in D major in the piano appear in succession. In other words, this is a bitonal section where both F major and D major are used.24 In this fashion, the tonality, which momentarily escapes from C minor, undergoes a phase of short harmonic succession (Eb–Db–F: Eb–Db–F) without consistent tonality in measures 113-114 and moves toward C major in the measure 115.

In the latter part of the third movement, sudden transition and illogical harmonic change occur more clearly. Bitonality occurs in measures 126-130 and the rhythmic figure of the instrumental bass is extremely similar to that of measures 110[14]-112 in the third movement. In measure 131, this bitonal section achieves a unification of tonality in E major. In measure 132, a transition to Bb major, which is a tritone away from E major, is carried out. In measure 134 [18], a very sudden transition is made to Eb Major. Despite such changes in tonality, consolidation of tonality does not occur and no clear conviction of tonality is expressed.

24 “Finally, a chord motion may contain diverse elements related to several tonalities, resulting in bi-tonal, bi-modal, or simultaneous major/minor/modal implications.” – Cole, p.3
3.3.2 Transition to symmetrical tonality

Symmetrical tonality refers to tonality pairs: keys with sharps and keys with flats. It refers to two tonalities that are engaged in a symmetrical relationship with each other in ‘the fifth cycle’ table that illustrates tonal relationships. Stravinsky boldly uses transition to symmetrical tonality as an element of timbre expression.

Such extreme transition is well represented in measures 131-146 of the third movement. After the key of E major is maintained, an intermittent transition to Bb major and Eb major (measures 132-137, measure 140), which are symmetrical tonalities with the key of E major, is made. In the climax, a return (measures 141-146) to the initial tonality (E major) is made.

Stravinsky’s use of transition to symmetrical tonalities can be understood as an attempt to transform and upgrade the classical concept of tonality in a modern fashion. The desire for powerful musical color led him to make radical choices in tonality. In the process, sound elements of expressionism, impressionism, and primitivism infiltrated neoclassical forms. These elements were used as an important means of composing the climax.
3.3.3 Transition with traces of the previous tonality

Measures 132-133 of the third movement can be considered a section in which the dominant 7th chord of Eb major rather than Bb major has appeared in advance. However, if F, the pedal point in the bass instrument, is considered the dominant, this section has a strong tendency toward Bb major. This F pedal point continues even in measure 134 [18], in which the key of Eb major is newly started, and maintains traces of the tonality of Bb major until measure 137. This section, as in previously discussed sections, does not allow for a single tonal sonority to sound.

3.3.4 Fragment of tonality beyond tonality

Measures 29-30 (trumpet and harp) of the third movement, measures 33-34 (trumpet and harp), and the staccato melody of the upper voice parts show characteristics of the Eb Major scale that appeared in measures 35-36 (trumpet and harp). These are fragments of tonality that diverge from the original tonality (C).

Bb, which is maintained by cello in measures 24-29, exists within a tonic chord in C major while it lasts and creates the sound of secondary dominant 7th chord in F major. The note continues as a dissonant major second to the C of the cello. However,

25 “In the last movement, it appears again in the accompaniment, generally as a minor third interlinked with a major third (trumpet and harp of section [4], 2nd piano of section[12]), though occasionally as two interlinked major thirds (trombones, tuba and pianos of section[5]), and also in the choir, where the constituent notes of a major third interlinked with a minor third (B flat rising to D, and C rising to Eb) are rearranged to being repeated until it finally resolves on the C.” – Eric Walter white, p.135
because of a ‘rhythmic motive’ that suddenly appears, this dissonant interval weakens and becomes a secondary sound, whereas timbre is also attenuated by the soft string sound in the cello (Figure 3.3, p. 36).

3.3.5 Allusive tonality

In the third movement, bitonality appears through an allusive tonality. First, allusive tonality can be found in measures 24[3]-36. In this part, at least three tonalities are used simultaneously. The first tonality is C major, which is the original tonality. Its appearance is clearly marked by a new rhythmic motive (measure 24). Another tonality is F major, which is suggested by the Bb. However, the key of F does not make an actual appearance; it is merely an allusive tonality. Finally, the third tonality is Eb major, appearing with staccato, which appears independently in the upper instrumental parts. In particular, as seen in measures 30-31 (2nd and 3rd bassoon and trumpet) and measures 33-34 (trumpet and cello), the three tonalities are independent and subjective to the point of being dissonant in their melodic movements. In other words, each voice-part seeks independent harmonic development based on a counterpoint-oriented thinking. However, such independence of tonality and melody in each part is controlled by a sophisticated sense of balance so that tonal harmony can be achieved in the overall structure and framework (Figure 3.3).
The character note, Bb, which alludes to F major frequently appears in the chorus and orchestral accompaniment of measures 87[11]-98 in the 3rd movement, and still shows traces of F. In other words, ‘V7/IV’ chord, which is the secondary dominant 7th chord of the IV chord that includes Bb, frequently appears in an inverted form. However, motion toward the IV chord, which is the consonance of the secondary dominant seventh chord, is never made. Therefore, the resolution of the leading tone that typically exists in a secondary dominant seventh chord also does not occur. In conclusion, this secondary dominant seventh chord is not an organic chord that belongs to a tonality; it is used as an independent and fragmentary chord. From such a perspective, the fact that F is the
instrumental bass of the final chord of measure 98, which is the end of the phrase, is deeply meaningful. It is because this ‘ending note’ hints that the overall structure of tonality up to this point was based on F major. The pitch F was one of the first notes that were introduced in the beginning part of this section along with the pitch Bb in the upper instrumental part. That the bass instrumental part of this section is centered on F is shown by the fact that the instrumental bass in measure 76 begins with F and F reappears later as the last note. In addition, considering the frequent appearance of Bb, the characteristic note of the F major scale, F major can be conjectured as the tonality that alludes to this part as in the case of measures 24-29. Therefore, Stravinsky continues to use allusive tonality, which is hidden, as a means of creating bitonality in this section.

D, which frequently appears in the tenor voice-part in measures 88-89, is an added note. After creating tension, it repeatedly achieves relaxation (measures 88-90, 92-94, 96-98) by a resolution to C# (measure 90), which is the chord tone. Overall, this section has a structure in which the first four measure-unit chorus repeats the same form twice while the orchestra makes a pseudo-repetition.26 Furthermore, the number of chromatic passing tones is reduced and a much clearer harmonic line is shown. However, traditional harmonic motion never appears.

26 “The Alto and Tenor sequence downward by step, and the Bau (which resembles figures at [6] and at [1]) sequence downward by third.” – Cole p.34.
3.4 New harmonic matericals

Characteristics of timbre in *Symphony of Psalms* stem from unique and innovative use of harmony. Extremely illogical connections of harmonies and motions scattered in the piece induce a severance from traditional methods of harmony. This is an important factor that conceals clarity of tonality. Traditional cadences can scarcely be found (the introductory part of the first movement and the second movement) and diverse new harmonic materials are used, including bi-harmony, harmony outside of tonality, ambiguous chords that include non-harmonic notes, harmony with lost characteristics of a chord because of the elimination of the third, consistent ostinato in the bass part, and double cadence. Such attempts contribute to Stravinsky’s creation of unique sounds based on ‘ambiguity’ that escapes from the framework of clear harmony.

3.4.1 Absence of cadence

Measures 87[11]-98 of the third movement comprise a section that is made up of an almost complete repetition of a four measure unit. The most important characteristic of this section is the ‘absence of cadence.’ When the four voice chorus of ‘Forte ben
marcato’ continues with quaver accompaniment in the full orchestra, the number of chromatic passing notes is reduced and a much clearer harmonic motion is shown. However, traditional harmonic motion still does not appear and cadences, such as D-T and S-T cadences, also do not appear. From the perspective of progressive motion vs. retrograde motion, retrograde dominates this piece. In such fashion, avoidance of traditional harmonic motion leads to a weakening of the concept of traditional cadence. Minute traces of cadence remain but the traditional logic of harmony, which was recognized as universal aspect of music, cannot generally be found in this piece.

3.4.2 Polychord

Bi-harmony, or simultaneous use of two chords, is an unavoidable consequence of bitonality and polytonality. An example can be found in measures 60-62 of the first movement. The tune, which maintains C major tonality, suddenly makes a transition to Eb major in measure 60. Here, a shift from an Em7 chord, the previous chord, to the V chord in Eb major, a Bb chord, is made. The shift is a very abnormal harmonic motion. No less revolutionary and bold harmony motion that can be described as an example of atonality is carried out in measure 61. In other words, more than two chords appear at the same time. Because of vague harmonic oscillation and the removal of the third, the characteristics of the chord become difficult to decipher. Simultaneous appearance of

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27 “The Alto and Tenor sequence downward by step, and the Bau (which resembles figures at [6] and at [1]) sequence downward by third.” – Cole, p.34

39
multiple chords in this section is used as a means of enhancing the intensity of sound for the formation of the climax (measure 65) that follows (Figure 3.4).

Figure 3.4 *Symphony of Psalms*, the 1st movement, mm. 60-62. Reduction by Sviatoslav Stravinsky

As shown in the figure above, the F in the bass voice and the G in the first trumpet conflict with each other on the second beat of measure 60. However, the sharpness of dissonance is attenuated by a distanced placement of the octave. The bass
voice is the F note that appears in the harmonic disjunct melody of D minor chord. The G note (resolving toward F on the octave) of the first trumpet is added as a changing note to the harmonic disjunct melody of Bb chord.

Measure 61 provides an example of more than two chords that are used vertically, and the following is the framework of the harmonies (Table 3.5).

<table>
<thead>
<tr>
<th>Measure</th>
<th>Measure 61</th>
<th>Measure 62</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beat</td>
<td>First beat</td>
<td>Second beat</td>
</tr>
<tr>
<td>Chord symbol (chord name)</td>
<td>Voice</td>
<td>B dim 7</td>
</tr>
<tr>
<td>Chord symbol (Eb major key)</td>
<td>Instrumental</td>
<td>G(third excluded)</td>
</tr>
<tr>
<td>Chord symbol (B major key)</td>
<td>I7</td>
<td>Vii7/vi</td>
</tr>
<tr>
<td>Chord symbol (third excluded)</td>
<td>II</td>
<td>Vii7</td>
</tr>
</tbody>
</table>

- 64=second inversion
- 43=second inversion of seventh chord
- 652=second inversion of seventh chord + fourth changing note
- 754= 7 chord + fourth changing tone
- In the figure above vii is diminished 7th chord.

Table 3.5 Harmonic analysis of the 1st movement, mm. 61-62

A closer analysis reveals that a C minor tonality in the voice-parts and an Eb major tonality in the instrumental parts simultaneously appear on the second and third beats of measure 61. Based on such bitonality, two different harmonic motions make their appearance. Here, Eb major, which underwent a temporary transition, does not function as an independent tonality as it continuously connotes C tonality, the central tonality of this musical piece.
The pitch of Ab, which frequently appears in the soprano of measures 61-62, is not unrelated to chord tones of the augmented sixth chord that appear in the C major key, a key that appears frequently throughout the piece.28

In measures 77-84 of the third movement, two superimposed chords are used. As shown in the figure below, V7 and ii7 are used on the second beat of measure 77, vi and iii are used on the second beat of measure 78 and measure 84 (not in figure), and V7 and ii7 are simultaneously used on the second beat of measure 83 (Figure 3.5). 29

(Figure 3.5 continued)

28 Ab in the key of C major can assume the following functions: (1) the chord tone of the augmented sixth chord, downward leading tone that is oriented toward the dominant; (2) the seventh note, which is a downward leading tone, in the diminished 7 chord that takes B as the fundamental note; and (3) a chord tone of the altered sub-dominant chord (borrowed chord).

29 “Or the tonality may be “telescoped”: a single chord may imply an entire tonal system by telescoping several important chords into a single vertical structure (the “Alleluia” of the third movement is a prominent example).” – Cole, Vincent Lewis, p.3
Such multi-harmony in this piece plays the role of enhancing the ambiguity of tonality and a contrast of timbre. This means that Stravinsky’s frame of thought about bitonality and polytonality was transferred to the realm of harmony.

Measures 163-198 in the third movement are the closing section of the third movement and form the section that can be considered the ‘coda.’ From the perspective of harmony this part is extremely complex. Although notes inside tonality dominate, a harmonic flow that is less clear than before appears. In this section, ambiguity of tonality and harmony and the pursuit of unclear sound, which are characteristics of the whole piece, appear in most extreme forms. Meanwhile, in the first part (measures 163-166) of this section, the harmony of the chorus can be divided into two pairs: soprano and bass on

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30 Howard Stephens, p.15
the one hand and alto and tenor on the other. While the outer voices—soprano and bass—move between the I and V chord in the unambiguous key of Eb major, the inner parts—alto and tenor—consistently remain on the IV chord. When the two chords are simultaneously used (poly-chord), harmonic differentiation becomes difficult. Here, when the notes forming a chord appear in a less dense environment, an ‘additional chord’ appears. When density is severe, a ‘cluster’ makes its appearance. At the end of the phrase (from the third beat of measure 166 to measure 168), the notes of each pair are united and a single harmony is created. The harmony of the instrumental part centers on the harmony of the voice-part as notes with counterpoint orientation are added. In a harmonic fashion, added notes (measure 163 ‘C – D – Eb’ (4th Trumpet), measure 164 ‘D – Db – D natural’ (4th trumpet), measure 166 ‘Bb’ (2nd Trumpet)) introduce change step by step. However, a cooperative relationship is forged with the ‘4 measure ostinato’ of the bass to consistently repeat the overall movement of the voice and instrumental part. This section (measures 163-168) is repeated in measures 169-174 and measures 187-198. Then the piece ends with a short interlude and a re-creation of the ‘Alleluia’ motive.

3.4.3 Avoidance of traditional harmonic motion

In this piece, unambiguous traditional harmonic motion is difficult to find. The observations on ‘absence of cadence’ discussed above can be applied. The beginning of the third movement can be cited as a specific example.
The third movement begins with the mystical “Alleluia” chorus. This section clearly shows that the rejection of traditional musical order can result in an attractive sound with intense persuasion rather than discomfort. This introductory material begins in C minor and from measure 1 to measure 3 shows diverse harmonic motion including [I - IV7 (7th chord in 3rd inversion with a natural third)], [ (continuance of the previous chord)], and [ii (diminished 3 chord) – i7]. In the IV7 (3rd inversion with a natural third) chord in the first measure of the instrumental part, an A-natural note shows the same characteristics as the sixth (A natural), which is the character note in the C Dorian mode. However, this sixth, an A natural in the trombone, despite its upward tendency, remains in its place and does not move upward to B natural. It is connected to the bass of the voice part in the second measure and, on the contrary, moves downward by one half-step to Ab in the third measure. Furthermore, the seventh of the i 7 chord (Cm7 chord) in the lowest instrumental part (bassoon), in other words, the Bb that appears in the second measure, decisively induces abandonment of the normal motion (playing the role of supporting motion to B natural is normal) of the Dorian 6th that appears here. With this new motion in which notes are freed from traditional order, Stravinsky’s unique secrets of sound production can be felt. In the third measure, a movement from a G pedal point to the tonic, C, is made in the instrumental bass while harmonic motion from ii (diminished triad) to i 7 is made in the upper voice parts (Figure 3.6).

31 “This ‘Alleluia’ does not begin with a bursting forth of joy in the style of the 19th century but rather begins with organ-like chords in the orchestra, followed by a pianissimo “Alleluia” for chorus which swells and then dies away.” - John Burnau, p. 62

“And finally, in consonance with Beethoven’s procedure, Stravinsky combines the keys of C and E flat in a bitonal cadence in the ‘Alleluia’ of the closing movement.” - Donald Chittum, p. 289
A similar example can be found in measures 113-114 of the third movement. Except for the wholetone scale in the trombone, these measures can be considered as having a harmonic motion in Bb minor: ‘IV (third natural)–III–V (measure 113): IV (third natural)–III–V (measure 114)’. Here again, there is little persuasive power of tonality considering that motion toward a chord that includes A-natural is not made despite the fact that the IV chord is a major triad that includes the ‘Dorian 6th’, G, and that a Bb minor chord, the tonic chord in the key of Bb minor, never appears.
3.4.4 Retrograde

As mentioned above in the section on “the absence of cadence,” no cadence is found in this piece and normal harmonic motion is difficult to find. In this piece, major harmonic motion consists of ‘weak motion’ or retrograde that violates traditional rules and this contributes to the creation of sounds that are not supported by tonality.

In measures 65[8]-71 of the third movement, the alto and tenor reproduce the ‘rhythmic motive,’ which was played by horns and bassoons in measure 24 [3], by singing “Laudate DO MI NUM …” in staccato. Meanwhile, the diminished triad and the major triad, which share E as a common note, appear in turn in the instrumental part. The diminished triad that appears here does not move toward a resolute chord. As C#, which is located in the inner voices of the instrumental part, moves toward C natural, the traditional principle of leading tone resolution is violated. Therefore, the first chord of measure 65 should be considered an A7 chord devoid of a root rather than C# diminished chord. The motion toward a C chord from this A7 chord creates a very strong retrograde that conveys a radical feeling of harmonic color.\(^\text{32}\) Overall, this part is governed by a C major tonality. In contrast with the rhythmic vocal part that remains on the same note, a disjunct melody in the instrumental bass in the form of an ostinato begins from measure

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\(^{32}\) “At [8] the contrasting “Laudate dominum” toys with bitonal relations arising from the alteration of C and C#, producing rootless AM, and CM tonal intimations. The bass line ostinato E-G-E is similar to others of this movement, and especially the bass line at [9].” – Cole, p. 33
65. With this sharp contrast in the bass line, which had been characterized by conjunct movement, a dynamic mood is introduced to the piece.

Similarly, measures 87[11]-98 of the third movement are also devoid of traditional harmonic motion. Therefore, from the perspective that contrasts ‘strong motion (normal motion)’ and ‘weak motion (retrograde),’ the prevailing motion of this piece is weak motion (retrograde). Generalized use of such abnormal harmonic motion is a key aspect of Stravinsky’s music.

3.4.5 Octatonic Scale and Wholetone Scale

Until measures 26-32 of the first movement, the core chord of the arpeggiated bass ostinato is G7. Non-harmonic notes of a minor second were added to this chord to transform the original characteristics of a G7. Meanwhile, the pitches of the bass part can be analyzed by a ‘C# Octatonic Scale’ shown in the figure below (Figure 3.7).

![Figure 3.7 C# Octatonic Scale](image)

According to Cole, the sequence of two minor thirds joined by a major third, the root idea of the whole work, were derived from the trumpet – harp motive at the beginning of the allegro in Psalm 150. “The bassoon arpeggio is a G7 (V of C minor) with a chromatic neighboring motion.”- Cole, p.6
Strictly speaking, the A# and G# in these measures on the original score are enharmonic equivalents to the Bb and Ab notated above. Considering that Stravinsky used note names that neglect the chord tones of the octatonic scale, it is difficult to say whether or not he used the octatonic scale intentionally. However, the accompaniment part of measures 33-36 is composed of a complete C# octatonic scale, and a complete C# octatonic scale is also used in measures 41[7]-48.

Measures 99[12]-103 of the third movement returns to the slow tempo of the first part of the third movement. After a short interlude of two measures, the deeply religious ‘Alleluia’ chorus appears once again. In this interlude, ascending pitches (Gb-Ab-Bb) of a wholenote scale are used in the bassoon and contrabassoon. As an F minor 7th chord is used in the upper parts to this interlude, the two lines display a considerably unclear chord structure. Wholetone scales suddenly appear to function as another factor that impedes consistent tonality. Good examples are the wholetone scale (Db-Eb-F-G-A-B-C#) played by the trombone that appears from the end of measure 108 to measure 109 and the wholetone scale that reappears from the end of measure 112 to measure 113.

35 In “dialogue with Stravinsky,” Stravinsky himself said that he used this without knowing that it belonged to the octatonic scale; “The first movement, ‘Hear my prayer, O Lord,’ was composed in a state of religious and musical ebullience. The sequence of two minor thirds joined by a major third, the root idea of the whole work, were derived from the trumpet – harp motive at the beginning of the allegro in Psalm150. I was not aware of Phrygian modes, Gregorian chants, Byzantinisms, or anything of the sort, while composing this music, though influences said to be denoted by such scriptwriters’ baggage-stickers may very well have been operative.” – Igor Stravinsky and Robert Graft, p. 45.
3.4.6 Absence of the consolidation of tonality

As stated in the discussion about ‘allusive tonality,’ traces of the key of F appear with Bb in measures 87[11]-98 of the third movement. However, consolidation of tonality is never established.

Measures 110-112 of the third movement are characterized by bitonality. In measure 131 that follows, a unification of the tonality of E major is achieved. Then, a very sharp transition to Bb major, a very distant tonality, is made in measure 132. However, no consolidation of tonality is made during the change of tonality. The harmony of measure 131 shows the harmonic motion of iii (with the third excluded) – vii7 (diminished 7 chord)–IV6–V7 (3rd Inversion) in E major. However, resolution to the next I chord is avoided entirely and a tonal change to the I chord in Bb major is immediately made.

3.4.7 Independent motion of the bass

In measures 157-162 of the third movement, the instrumental bass part that bequeaths previous bass ostinato begins very slowly to form an ‘independent arpeggiation of a Bb triad. Then, in measures 161-162, a independent bass line is established on descending fourths of ‘G – D – A, F – C – G.’ Based on this instrumental bass part, the other parts establish the key of Eb major from measure 157 (not from
measure 162). After an ascendency centered on a secondary diminished 7th chord and dominant 7th chord, the climax is reached in measures 161-162. In this way, Stravinsky frequently treats the motion of the bass instrumental part separately from the upper parts, which display a unified harmonic motion.

The same observation can be applied to the episode (Rehearsal [14]-[16]) at the end of the second movement. Here, the independent bass line at times agrees with other voice-parts with a common chord. In most cases, however, slightly or completely different chords are used.

3.4.8 The most representative section that simultaneously uses diverse new tonal materials

Characteristics of measures 53-64 of the third movement were already presented above in the ‘sudden transition’ section of ‘other types of extended tonality.’ The tonality of this part can be conjectured as Eb major. However, changes in tonality are so frequent that no single tonality is maintained consistently. When the vocal parts and the upper instrumental parts carry out a motion with a single harmony, the instrumental bass abandons the role of traditional fundamental tone and root tone, or the role of supporting the harmony as the lowest part, and attempts ‘independent motion.’ Along with the soprano, the instrumental bass melody forms the rhythmic frame of the outer voices. However, in its interval relationship, the bass melody maintains a relationship of major and minor second (strictly speaking inverted major and minor second) with the soprano,
creating unique dissonant sounds. Because of this independent bass melody, overall, the key of C minor dominates despite the fact that the upper voice parts imply an Eb major tonality. Therefore, a ‘bitonal phenomenon’ caused by the simultaneous use of major and minor scales of relative keys occurs in this part. A radical harmonic transition, which can be considered as illogical, occurs simultaneously. In the bass line at the end of the phrase, melodic motion from Ab to G, which was characteristically used in the introductory part of the first movement and the beginning of the third movement, is replicated in measure 64 to create a strong sense of cadence in C tonality.

In measures 140-146 of the third movement, various materials of the harmony — various changes of tonality, bitonality, exchange of the characteristics of the third inside the same chord, etc.—are used to attempt an abrupt change in theme. This leads to a bold expansion in the volume of sound and, in the end, the completion of the subject of the third movement and the climax are reached. Measure 140, which is a short transitional measure, is a I chord in Bb major. It is an independent key that is very different from the resolution of the immediately preceding chord (the second beat of measure 139, vii7 (diminished 7 chord) in E major). Furthermore, in the following measure (141), there is a return to E major, which is the original key. In measure 142, the upper instrumental parts, which maintain the key of E major, and the lower part, which is closest to an E minor chord, simultaneously appear. In particular, another independent bass appears from the fourth beat of measure 143, which is closer to B major than to E major. In conclusion, three tonalities simultaneously appear in measures 144-146 where the independent bass part was added. Strictly speaking, however, this should be considered a moment where two tonalities—E major (upper parts) and B major key (bass
part)—appear simultaneously because the thirds of the chords do not appear in the inner voices in measures 144-146 and are absorbed by alternate appearances of an E triad and a G triad in the upper voice-part.

Measures 163-198, which is the closing section of the third movement and the whole piece, can be considered a coda. The measures are marked by the simultaneous appearance of diverse tonal materials. Eb major, which appeared suggestively at measure 157, begins an actual transition to Eb major from measure 163. As discussed in the ‘polychord’ section above, this section is extremely complex. This is also a passage where Stravinsky’s ambiguity in tonality and harmony and his pursuit of unclear sound, which characterize the whole piece, appear in most extreme forms.

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36 Howard Stephens, p. 15
In Symphony of Psalms, Stravinsky composes unique approaches to tonality and harmony. This piece reflects the neoclassical preference for C major to the point of being called “white-key music.” This is apparent in the fact that the C tonality is expanded and developed after it is established as the central tonality of this piece. To consolidate the C tonality, Stravinsky frequently uses Ab and F#, which are character notes (special chord tones) of the augmented sixth chord. By carrying out a motion of the two notes toward the dominant (G), the normal resolving note of augmented sixth chord, Stravinsky establishes C as the central tonality of this work. An E minor chord with an overlapping of the third, which clearly appears in the introductory part of the first movement, imitates the dominant chord (G chord), the consonance of Ab and F#, to perform its role. This is evidence that this part pursues C tonality. Additional support is that all three movements begin with C tonality and that a cadence toward the dominant chord occurs in the first movement. Furthermore, a cadence toward C major triad occurs in the third movement. In this sense, the three movements form a large-scale cadence of C tonality. It can be seen that C tonality functions as the frame and balancing factor of the whole piece.
Meanwhile, bitonality and polytonality, which frequently appear in this piece, destroy the traditional concept of tonality that relies upon a single tonality. The unique feeling of musical color that characterizes *Symphony of Psalms* may be related to ‘accidental sounds’ that occur when horizontal melodies of different tonalities—such as bitonality and multitonality—are carried out at the same time. By adding the principles of bitonality and multitonality to the beauty of classical form, Stravinsky succeeded in making a transition from the one-dimensional world of traditional music to a more multidimensional structure.

Finally, new materials of harmony that are widely used in the piece are no less important than bitonality and multitonality in contributing to the creation of timbre and sound characteristics of this piece. In addition to tonality, new harmonic materials — retrograde (weak motion) that escapes from traditional harmonic motion, harmony outside of tonality, polychord, chords that exclude the third, harmonies that undergo sudden transition, etc.— are boldly introduced. The end result is Stravinsky’s unique neoclassical sound that is firmly established in the history of music.
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