ANALYSIS OF "MASS"

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By

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I. INTRODUCTION

I began to work as a pianist for Sunday Service and Chancel Choir at Lutheran Church since I was sixteen. Through the years, I developed a special interest in hymns and church music. When I was a student at the Royal Northern College of Music, (United Kingdom), I joined the concert chorus and performed Verdi's Requiem, and realized the beauty and expression of human voice, and the power of choral singing. At California State University, Hayward, I have further opportunity to explore for myself not only to the choral music from the Renaissance but also in 20th Century. I became more familiar with the music by Palestrina, Moteverdi, Arvo Part and Henryk Gorecki. Among all the periods in Western music history, I love the choral music from Renaissance, because of its contrapuntal technique can produce a much richer and fuller texture. In contrast, I also enjoy and appreciate the simplicity and deepness of Arvo Part's music.

I believe Latin is the most beautiful language for singing. I have special interest in choral music as well as my strong believe in Christianity. Therefore, I have decided to write a Mass for my University Thesis to fulfill my personal goal and let the name of our Heavenly Father be glorified.

I would like to express thanks to my wife, Luisa, to whom the piece is dedicated, and to my parents, to my son, Jonathan, and to my daughter, Catherine. Without their constant love and support, I would not be able to finish my studies.
Without the love from our Heavenly Father, I would not have the health and strength to finish this goal.

Thank you to Dr. David Stein, for his guidance in choral literature and a deeper understanding and appreciation in choral music. His encouragement and teaching in my choral conducting study is greatly stimulated me to be a better choral conductor. Thank you to Dr. Jeffrey Miller, for his guidance in orchestration from his instrumentation class, I have developed a better understanding and concept in this area. A very special thank you to Dr. Frank La Rocca, my mentor and friend, without him, I might stop composing long before. Because of his consistent guidance, encouragement and support, I am able to continue my study in composition. He not only opens a new window for me in composition but also guide me to search and develope my own preference in this field.
II. TEXT

Mass is a commemoration and re-creation of the Last Supper – the Eucharist; it is the most important solemn service of the Roman Catholic Church and the one normally attended by the public. The term of "Mass" is taken from the words of dismissal of the congregation at the end of the ceremony ("ite missa est"); an earlier name was *eucharistia*. By the 7th century, the Mass had developed an elaborate liturgy of chants, prayers, and readings placed before and after the central canon - the prayer consecrating the elements of communion, said immediately following the Sanctus.

In common musical parlance, the term Mass refer to the principal sung sections of the Mass Ordinary:

(a) Kyrie (Lord have Mercy)

(b) Gloria in excelsis Deo (Glory be to God on high)

(c) Credo (I believe)

(d) Sanctus including the Benedictus (Holy, Holy.....Blessed.....)

(e) Agnus Dei (O Lamb of God)
III. SETTING

This is based on the text from Mass Ordinary. The whole setting is for soprano solo, mixed chorus and orchestra. There are six movements as following:

Introit: orchestra.

Kyrie: chorus, a cappella, coda with orchestra.

Gloria: chorus, a cappella, soprano solo with orchestra, coda with orchestra.

Credo: soprano solo, a cappella, chorus, a cappella, soprano solo with orchestra, chorus with orchestra.

Sanctus: chorus, a cappella.

Agnus Dei: soprano solo and chorus with orchestra.
IV. TONALITY

The tonality of the whole setting in this Mass is based on the concept of common practice in 18th century. The tonality of movements is based on tonic - dominant relationship as well as relative major and minor. The material for the melody is based on Ecclesiastical Modes. The outline of the tonality in this Mass as following:

Introit: - The tonal center is on "D", with suggestion of "D" Dorian. However, the movement begins with its subdominant "G".

Kyrie: - "A" Aeolian, same as A natural minor, the dominant of "D".

Gloria: Part 1 - "C" Ionian, same as C major, the relative major of A minor, the new tonic.

Part 2 - "G" Mixolydian, the dominant key of C major, the new dominant, then modulate to "D" Dorian, the dominant of dominant, then goes back to "G" Mixolydian.

Part 3 - "C" Ionian, from dominant back to tonic.

Credo: Part 1 - "F" Lydian, the subdominat key of C, the new tonic.

Part 2 - "C" Lydian, the dominant key of F.

Part 3 - "D" Aeolian, the relative minor of F.

Part 4 - "F" Lydian, the tonic key.

Santus: - "E" Phrygian, the dominant key of A minor, the tonal center of Kyrie.
Agnus Dei: "D" Dorian, the subdominant key of A minor, and it is the recapitulation of Introit, ending with a full D major chord,

**Diagram of Tonality**

Movement: Introit Kyrie Gloria Credo Sanctus Agnus Dei

Tonal center: D ----- A ---- C ------ F ------ E ----------- D

![Diagram of Tonality](image-url)
The harmonic language of Introit begins with a concept which is based on
the color of Overtone Series. It begins by unfolding a harmony composed of
octave, fifth and fourth (see example #1).

**Example 1**

This fundamental harmony is also found in Kyrie, with extended use of
contrapuntal writing in canonic style (see example #2) as well as in homophonic
chordal writing (see example #3).

**Example 2**
Example 3

Note that the harmonies move perfect parallel motion. The idea of writing consecutive perfect consonances in succession is to explore the beauty of these intervals while extending the principles of common practice.

In Gloria, the central harmony is also built upon the concept of intervals. In a manner similar to Kyrie, where chords are built in perfect fifths, a chord of stacked perfect fourth is used here, in contrast to the earlier examples (see example #4).

Example 4
In *Credo*, triadic harmony is employed, often with a strong sense of harmonic progression from a common practice point of view. In measure 29-31, the harmonic progression of i - iv - i in the key of D minor is implied, with passing dissonance employed on the weak beat of measure 30-31. (see example #5).

*Example 5*

In addition, diatonic "tone-cluster" is also employed in this movement in measure 65-67 to enrich the color of dissonance (see Example #6).

*Example 6*
In *Sanctus*, variety of both consonant and dissonant intervals are employed. Content of chords to include combination of interval is also expanded to seconds, thirds, fourths, fifths and octave. In addition, sustaining note in top voice, and pedal note in octave in lower voice, are also employed. Evidence of voice leading is also revealed (see Example #7 and Example #8).

*Example 7 (combination of interval)*

![Example 7](image)

*Example 8 (voice leading)*

![Example 8](image)
In *Agnus Dei*, combination of interval such as seconds, thirds, fourths, fifths and octaves are restated as the recapitulation of intervalic device in this composition (see Example #9).

*Example 9*

![Example 9](image)

In the harmonic structure of this Mass, the concept of Sonata Form can be applied. It seems that the *Introit*, *Kyrie* and *Gloria* can be viewed as the Exposition: usage of interval in octave, fifth and fourth in canonic and chordal writing with traditional harmonic progression from common practice, are based on the color of the Overtone Series.
Credo can be viewed as Development: usage of new harmonic elements such as ‘tone-cluster’ which is developed from the intervals employed from the previous movements. Sharp dissonance – seventh is also employed as well as the absence of strong cadence in harmonic progression.

Sanctus and Agnus Dei, can be viewed as Recapitulation: return to use of simple intervals from Exposition (Introit, Kyrie, Gloria), and the diatonic ‘tone-cluster’ from Development (Credo). The orchestral postlude in Agnus Dei can be viewed as Coda.
VI. MELODY

The style of melody in this Mass is strongly influenced by Gregorian Chant from the Medieval period. As I mentioned in Chapter IV, TONALITY, material from Ecclesiastical modes are employed, such as Dorian, Aeolian, Ionian Mixolydian, Lydian and Phrygian.

The reason why I choose to use the modes is because of their beauty as well as their entirely different color compared to the conventional major and minor scales employed in the 18th and 19th centuries.

Although Ecclesiastical modes are employed in this composition, the way I use them is entirely different from the practice in the Medieval or Renaissance period. I like to point out that there are four distinguishing characteristics in the melodic structure of this Mass:

1.) Use of Overtone Series

At the very beginning of the Mass, the fundamental note of 'G' is employed. Overtones based on 'G' is the main structure of the melodic contour, featuring intervals such as octaves, fifths and fourths. The 'G' note not only serves as fundamental but also as sustained pedal note. This pedal note also forms perfect consonances with the notes from the melodic contour (see Example #10).
Further employment of this concept appears in form of changing dynamics and timbre while the same intervals are employed in horizontal and linear movement (see example #11). Please also refer to the score, *Introit* measure 1-13.
2. Use of short rhythmic figure with canonic writing and repetition

I still use the same intervals, such as fifth and fourth from the concept of the Overtone Series because of its beauty of pure color. However, the approach of writing is different. Instead of using long sustained notes and subtle change of dynamics or timbre, imitative writing in canonic style is employed. A short rhythmic figure is constructed and serves as motive. The intervals of this motive, fifth and fourth, appear in horizontal and linear movement. The motive is repeated in different vocal ranges to form a canon as well as to supply the harmonic medium (see example #12). Please refer to the score, *Kyrie* measure 1-13, and *Gloria* measure 1-8.

Example 12
Furthermore, the short rhythmic figure appears in all the vocal ranges to form the chordal writing style while the linear harmonic structure still remains the intervalic structure of fifths and fourths (see example #13).

Example 13

Later on, this concept even includes more variety of intervals such as seventh and third employed. The purpose is to develop different kinds of color in harmonic structure, moving away from the concept of the Overtone Series. This also serves as preparation for the further development in melodic structure in modal and chordal writing in later movements of this Mass (see example #14).
3. Use of modal scale in melodic structure with the employment of chordal accompaniment

The whole modal scale is finally employed in the melodic structure of the fourth movement, *Credo*. Melodies are more in the style of an aria, especially in measure 1-5 (see Example #15).

Example 15
Later on in the movement, melodies based on short rhythmic figures are employed, together with the chordal accompaniment. These chords are mostly constructed by the combination of octave plus third, fifth, second and seventh (see example #16).

Example 16
4. Influence of Arvo Part's Tintinnabuli style with combination of previous elements in melodic structure

One of the special features of Arvo Part's music is the Tintinnabuli style—sustaining the elements of a tonic triad while scala melody is unfold against them. This style has a strong influence in the texture and melody of Santus and Agnus Dei of this Mass. After the employment of color from the Overtone Series, short rhythmic figure with canonic writing, and modal scale with chordal accompaniment, I was searching to find a way to put the combination of everything with a new presentation. The answer was a similar style of Arvo Part's Tintinnabuli style. This style allows me to use the modal scale as the main melodic line with harmonic structure based on the color of Overtone Series from the previous movements of this Mass. Refer to Agnus Dei, measure 53-55 (see example 17).

Example 17

![Example of Scalar Melody and Chordal Harmonic Structure]
VII. ORCHESTRATION

The Mass is written for solo soprano, mixed chorus and orchestra. The performance practice is rather for chamber choir than symphonic chorus. Therefore, the mixed chorus for this Mass consists of only 48 members, 12 members for each section: soprano, alto, tenor and bass.

As instrumentation for this rather small size mixed chorus, I intend to use a chamber orchestra, consisting of 1 flute, 1 oboe, 1 English horn, 1 clarinet in Bb, 1 bassoon, 2 French horns, 2 trumpets in Bb, 2 trombones; harp and strings (6, 6, 4, 4, 2).

The function of the orchestra is not only accompanying the solo soprano and chorus but also to participate in the instrumental sections. Most movements follow this pattern: instrumental introduction, choral a cappella, instrumental interlude, choral a cappella, instrumental postlude. The choral sections are sometimes very lightly accompanied. Only the Introit, a purely instrumental movement, does not follow this pattern.

The orchestration has several elements are closely related to the melodic devices: overtones, short rhythmic figures and use of open octave for chordal accompaniment.
In the *Introit*, sustained notes are employed to achieve the timbre from the Overtone Series. Dramatic changes of dynamics are also employed (see Example #18). Change of instrument from strings to brass is employed to emphasize different instrument timbres with the concept of Overtones still applied (see Example #19).

After writing in sustained notes, a new element emerges: short rhythmic figures with continuing use of sustained notes as background (see Example #20).

To accompany the solo soprano, the approach is more in the broken chord style from the Classical period. I use harp because of its unique timbre and sustaining ability (see Example #21).

For sonority, a full tutti is employed at the end of the Mass. In this texture, the orchestra doubles the chords from the chorus, with the melodic device of the short rhythmic figures as well as the harmonic device of open fifths, octaves and seconds filling out the sonority. The idea is to show the melodic and harmonic devices together to mark the ending of the Mass (see Example #22).
EXAMPLE 19

CHANGE OF INSTRUMENT FROM STRINGS TO BRASS

CHANGE OF TIMBRE, THIS EXAMPLE SHOULD

COMPARE WITH EXAMPLE #17
EXAMPLE 20

SHORT FIGURES

SUSTAIN NOTES

mf
EXAMPLE 21

HARP ACCOMPANYING A MELODY

CAL STATE UNIVERSITY HAYWARD LIBRARY
EXAMPLE 2.2

TUTTI FOR SONORITY
"MASS"

for

Soprano, Mixed Chorus

and Orchestra

Soprano, Mixed Chorus: 12, 10, 12, 12

Instrumentation: Fl., 2 Fl., E.H., 2 Cl., Bb, Bassoon, 2 Horns

2 F., 2 Bb, 2 F., Harp, Strings 6.6.4.4.2

by

Stephen Ng
Soprano

Alto

Tenor

Bass

"Hajendo e la- i - son"

Christe, Christe e la - i - son

Christe, Christe e la - i - son

"sonn" Christe e la - i

"sonn" Christe Christe
et in terra pacem

volunta tes

bonae voluntatis
Andante (1=80)