An Analysis of Theme and Variations for Orchestra

Jae Eun Ha

University of Tennessee, Knoxville

Follow this and additional works at: https://trace.tennessee.edu/utk_gradthes

Part of the Music Commons

Recommended Citation
https://trace.tennessee.edu/utk_gradthes/4332

This Thesis is brought to you for free and open access by the Graduate School at TRACE: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Masters Theses by an authorized administrator of TRACE: Tennessee Research and Creative Exchange. For more information, please contact trace@utk.edu.
To the Graduate Council:

I am submitting herewith a thesis written by Jae Eun Ha entitled "An Analysis of Theme and Variations for Orchestra." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Music, with a major in Music.

David Van Vactor, Major Professor

We have read this thesis and recommend its acceptance:

George F. Devine

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)
May 27, 1969

To the Graduate Council:

I am submitting herewith a thesis written by Jae Eun Ha entitled "An Analysis of Theme and Variations for Orchestra." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Music, with a major in Music.

David Van Vactor
Major Professor

We have read this thesis and recommend its acceptance:

George F. DeVine

Ray A. Bobman

Accepted for the Council:

Hilton A. Smith
Vice Chancellor for Graduate Studies and Research
AN ANALYSIS OF THEME AND VARIATIONS
FOR ORCHESTRA

A Thesis
Presented to
the Graduate Council of
The University of Tennessee

In Partial Fulfillment
of the Requirements for the Degree
Master of Music

by
Jae Eun Ha
August 1969
ABSTRACT

The analysis of Theme and Variations for Orchestra was undertaken to trace the elements of thematic unification through the work, to note certain aspects of orchestration, rhythm, texture, melody, counterpoint, harmony, and form.

Thematic material is derived from the pentatonic scale, which is the characteristic scale of Korean folk tunes. The theme is first stated in the flute at the beginning. In addition to several appearances of the theme in its original form, the theme appears also inverted, retrograded, transposed, and modified in various ways.

Theme and Variations for Orchestra is not intended to be sectional, by which is meant clear cadential breaks of indefinite length forming sectional series, but continuous form. The over-all plan which gives a profile and cumulative effect to the total series of variations is gradual increase and subsidence of motion, of dynamic intensity, of brilliance of color, and of textural complexity.

The orchestration is conservative. Most variations,
except the fifth and the last two variations, are lightly scored, laying emphasis on contrasting color. To help listeners follow the thematic material in each variations, an instrument or a group of instruments of contrasting colors is assigned to carry it out. A number of solo passages may help in identifying the theme. The score requires woodwinds in pairs, four horns, two trumpets, three trombones, one tuba, timpani, percussion, and a medium sized group of strings, minimum preferred 8-6-4-4-2.

The rhythmic idiom of the work is relatively simple, except the superimposed rhythmic figure above compound meter in the fifth variation.

Most of the texture is contrapuntally conceived, with melodies influenced by vocal style. Voices are rhythmically independent in contrapuntal texture.

Tertian sonorities are much used in the harmonic vocabulary. But often as a result of linear thinking of voices, sharp dissonances are created, then resolved properly. In the last two variations tone clusters are used for the purpose of percussive orchestral effect. Root progressions, first inversions, and second inversions of chords are well proportioned by means of counterpoint.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. FORM</td>
<td>1</td>
</tr>
<tr>
<td>Phrase Structure</td>
<td>6</td>
</tr>
<tr>
<td>Tonality</td>
<td>7</td>
</tr>
<tr>
<td>II. ORCHESTRATION</td>
<td>8</td>
</tr>
<tr>
<td>III. THE RHYTHMIC IDIOM</td>
<td>10</td>
</tr>
<tr>
<td>Meters</td>
<td>10</td>
</tr>
<tr>
<td>Tempi</td>
<td>10</td>
</tr>
<tr>
<td>Rhythmic Patterns</td>
<td>11</td>
</tr>
<tr>
<td>IV. TEXTURE</td>
<td>14</td>
</tr>
<tr>
<td>V. THE MELODIC IDIOM</td>
<td>15</td>
</tr>
<tr>
<td>Ranges</td>
<td>15</td>
</tr>
<tr>
<td>Contours</td>
<td>16</td>
</tr>
<tr>
<td>Cadences</td>
<td>16</td>
</tr>
<tr>
<td>VI. THE CONTRAPUNTAL IDIOM</td>
<td>17</td>
</tr>
<tr>
<td>.Dissonance Control</td>
<td>17</td>
</tr>
<tr>
<td>Rhythmic Relationships</td>
<td>18</td>
</tr>
<tr>
<td>Cadences</td>
<td>19</td>
</tr>
<tr>
<td>VII. THE HARMONIC IDIOM</td>
<td>20</td>
</tr>
<tr>
<td>CHAPTER</td>
<td>PAGE</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Vertical Sonorities</td>
<td>20</td>
</tr>
<tr>
<td>Traditional chords</td>
<td>20</td>
</tr>
<tr>
<td>Unconventional sonorities</td>
<td>21</td>
</tr>
<tr>
<td>Chord Succession</td>
<td>22</td>
</tr>
<tr>
<td>Cadences</td>
<td>23</td>
</tr>
<tr>
<td>VITA</td>
<td>24</td>
</tr>
</tbody>
</table>
CHAPTER I

FORM

As the title indicates, the formal scheme of this music is theme and variations. The theme is original and bears a strong flavor of Korean folklore, which is based on the pentatonic scale as shown in Example 1.

Ex. 1. Pentatonic Scale used.

The form of the theme is a conventional eight-bar period with clear-cut antecedent and consequent phrases. (Refer all musical examples to the supplement.)

Ex. 2. P. 1, m. 1 - 8.

The theme, shown in Example 2, consists of a solo
statement in the first flute. D, an alien note to the pentatonic scale, is found in the last measure of the theme; however, this note is used only once as a passing tone (downward) to create a cadence which confirms a tonal center on c-minor.

The theme is repeated in the first oboe as the soprano of a four-voice, chorale-like texture in the first variation, which begins in measure 9 of page 2. The tonal center is still c-minor. Beginning measure 17 a bridge of four measures follows, leading to the second variation.

The theme is inverted in the first and second violins as a top voice of a two voice texture. The lower voice played by cello and contrabass is a counterpoint to accompany the inverted theme. A four-voice texture starts again in measure 29, with the previously stated inverted theme in the first flute and oboe as a soprano. The tonal center has shifted from c-minor to f-minor in the second variation.

A transition leading to the key of d-minor is found in measures from measure 37 to 42 of page 3, and with the change of meter at measure 43 from triple (6/8) to duple (4/4) three more measures of transition serve to prepare
a changed tempo (from allegretto, quasi sicilliana to
moderato, quasi allegretto).

In measure 46 the third variation begins, with the
first flute playing the modified theme—again in a four-
voice texture. The third variation is homophonic rather
than contrapuntal. The contour and pitch set of the
melodic line of the third variation is the same as the
theme stated at the beginning, and the third variation is
a rhythmic variation accompanied by a change of meter and
tempo.

The fourth variation begins in measure 55 with the
melodic embellishment of the theme in the first violin.
Counterpoint is employed against thematic material; the
fourth variation, however, is in a polyphonically animated
homophonic texture. The same technique is used with the
repeated variation tune in the viola which is doubled by
the first bassoon in measure 66 of page 5 adding one more
voice. The tonality centers on d-minor.

The fifth variation actually occupies eight measures
from 77 of page 6 to 84 of page 7. All strings except
string bass play the variation tune in unison with the
composite rhythmic accompaniment of all wind instruments. Four measures from measure 85 to 88 are a mere extension followed by a transitional passage modulating to g-minor, which is the tonal center of the sixth variation.

The sixth variation beginning measure 93 of page 8 is in two-voice texture: trumpet solo (clarinet on the higher pitch) and the counterpoint in viola and cello. The whole variation, except the last measure of page 10, is built on tonic and dominant pedals played by the first and the second violins. The first two measures of page 11 are in G-major, which leads to c-minor.

The seventh variation, with a change of meter and tempo, is a melodically twisted and embellished one. The rhythmic emphasis is on the syncopated eighth note. The first oboe plays the theme and the theme is repeated by the first violin in measure 121 of page 14. The trills and scales in the woodwind instruments, beginning at measure 121 are mere added color. The pizzicato in the violins doubles the accented off-beat notes of the woodwinds.

The eighth variation (solo in the first horn) is again in a four-voice choral-like texture starting in
measure 133 of page 17. The solo part is doubled in the second violins, and four measures later the first violins enter an octave higher. Figurations are used in the woodwind section to punctuate the pulse.

The ninth variation beginning in measure 156 of page 21 is a retrogression of the theme. Seven measures from measure 149 of page 19 to measure 155 of page 20 are transition leading to the ninth variation.

The tenth variation in measure 164 of page 22 is a mere transposition to the mediant, which is the relative major of c-minor, with slight changes of the figure in the woodwinds.

The eleventh variation is composed for percussion instruments. In order to identify the thematic material, the pitched instruments, timpani and campanelli, are used. At the end of the eleventh variation the original theme returns in a faster tempo. With a percussive accompaniment by the whole orchestra, the trombones play the theme in unison. This variation is a composite of texture, rhythm, color, and tempo. In measure 215 of page 26 the upper strings take over the theme with slight changes in orchestration.
In measure 223 of page 27 the muted trumpet announces an approach to the coda, which is a complete statement of the theme by the solo flute. A dominant pedal in the violins is sustained to the end in the original tempo.

I. PHRASE STRUCTURE

The phrase structure of the work is clearly articulated by cadences, and the phrases combine into period structures with antecedent and consequent relationships, as happens in the theme.

The phrase lengths are fairly regular throughout all of the variations (four measures), but there are also irregular phrases; for example, a seven-measure antecedent phrase followed by a nine-measure consequent phrase in the sixth variation. The eleventh variation for percussion is the longest in length in the work, and it contains two periods of irregular phrases: two five-measure phrases and four- and nine-measure phrases.

Other than those mentioned above the regular periodicity of four-measure phrases is the prevailing feature in the whole work. Most of the phrases are masculine. The
phrases coincide with the rehearsal figures, but transitional passages are usually included at the end of phrases; for example, in measures 9-21 of page 2, measures 66-77 of pages 5 and 6, measures 110-120 of pages 11 through 13.

II. TONALITY

Since many Korean folk tunes are pentatonic modal, the tonal center on c-minor is chosen arbitrarily. All variations are tonal and modulate to closely related keys, which is conventional practice.

The theme and the first variation are in c-minor, the first variation cadencing on f-minor. The second variation has three flats as key signature but it is in f-minor cadencing on d-minor. The seventh variation is in g-minor modulating back to the home key, c-minor. The rest of the work remains in c-minor.
CHAPTER II

ORCHESTRATION

The orchestration is conservative, calling for pair of flutes, oboes, clarinets, and bassoons; four horns; two trumpets; three trombones; timpani; percussion for three players: gong, snare drum, bass drum, campanelli, triangle, symbols, and temple blocks; and strings 8-6-5-5-2.

The work contains a large number of solos, important solo passages being assigned to first flute, first oboe, first clarinet, first horn, first trumpet, trombones, timpani, and campanelli. There are a few doublings at the unison and the octave. There are only two tutti passages.

The parts lie within comfortable ranges of the instruments, except in such instances as the high trill of first flute on page 19 and 25 and high running passages for first violins on page 4 and 7. A high solo passage for first horn on page 17 may not be comfortable either.

The scoring by choirs, scoring for soloists, and scoring of contrapuntal lines in contrasting colors reflects the attitude that color is important, but that line is more important than color.
The first, second, third, and fourth variations, more lightly scored than the fifth, feature contrasting choirs of instruments; for example, ensemble woodwinds followed by strings on page 2 and 4, and contrasting color such as first flute and oboe against the whole body of strings on page 2. In the sixth variation music is scored lightly again for contrast between brass (first trumpet solo) and strings. Two violins pizzicato, aided by snare drum and triangle of indefinite pitch instruments, create another color contrast against first oboe solo. The first flute, clarinet and bassoon play little figure passages filling up rhythmic gaps since sixteenth notes are the main rhythmic feature in the seventh variation. The eighth variation is romantic, with main emphasis on strings with a little sparkling zest in flutes and clarinets. Oboes are eliminated because of their prominent tone color.
CHAPTER III

THE RHYTHMIC IDIOM

The work does not present any particular rhythmic problem since it is written with the intention of remaining within the performance capacities of a college or community orchestra.

I. METERS

The basic meter of the work, 6/8, is maintained except in the common meter variations (the third variation beginning on page 3, the seventh variation beginning on page 12, and the eighth variation beginning on page 17). There is only one 3/4 variation which begins on page 8.

The metrical feeling has not been obscured by any means. There are few tied notes across the bar lines which can obscure metrical feeling.

II. TEMPI

While the metric scheme is fairly simple, the variety of tempi is one of the main features in the work.
At the head of the work the tempo mark is Allegretto, quasi sicilliana, a dotted quarter note equaling 56 on the metronome. This tempo is maintained through the second variation. It is neither slow nor fast. With the meter change in the third variation, the marking is Moderato, quasi allegretto, a quarter note equaling 100. In the fourth and fifth variations, Allegro scherzando, a dotted quarter note equals 80; the sixth variation, Maestoso, a quarter note equals 60; the seventh variation, Allegretto, a quarter note equals 92; the eighth variation, Andante, a quarter note equals 76; the ninth and tenth variations, Allegretto, a dotted quarter note equals 80; the eleventh, twelfth, and thirteenth variations, Allegro giusto, a dotted quarter note equals 86. The last statement of the theme returns to the original, Tempo di comenzaio.

III. RHYTHMIC PATTERNS

With rare exceptions, the rhythmic patterns throughout the work are uncomplicated. Longer durations generally begin on accented beats while shorter ones occupy unaccented
positions. Rests are freely distributed throughout the score. For ease of performance, the common quarter-note in simple meters and the dotted quarter note in compound meters are consistently used as the beat units.

Although not a remarkable figuration, the rhythmic passage beginning in measure 77 of page 6 would seem to invite comment because of its superimposition of patterns of two eighth notes upon the prevailing 6/8 meter, as illustrated in Example 3.

Ex. 3. P. 6, m. 77.

Another rhythmic figuration which is worthy of comment is the one in the twelfth variation, shown in Example 4.

This is one of the typical rhythmic figurations of Korean folk music which is usually played by rhythmic instruments, such as drums. A slightly modified figuration of Example 4 is found in measure 215 of page 26, as illustrated in Example 5.

Ex. 5. P. 26, m. 215.
CHAPTER IV

TEXTURE

Though it is true that most of the work is conceived horizontally, with the exception of the third, sixth, and eighth variations, most of the variations are the result of mixed harmonic and contrapuntal writing in which contrapuntal lines are woven through vertical harmonic structures which influence the melodic truns of the voices.

Of the 247 measures of the work, 97 employ either unison or soloistic passages; 64 of these employ two parts or two real parts with melodic doublings at the octave; 86 of these employ three parts or more than three real parts. There is only one melodic doubling at the fourth in measure 215 of page 26.
CHAPTER V

THE MELODIC IDIOM

The fact that the theme bears a strong flavor of Korean folklore does indicate that the theme is quite vocal. The theme has the ambitus of an octave, with a perfect fifth being the widest leap. Other intervals include sixteen major seconds, one minor second, seven minor thirds, and three perfect fourths.

The theme reaches its highest pitch twice, but there is only one climax in terms of dynamics at two-thirds of its length and the climax has a range of an octave.

I. RANGES

Only a few of the lines bearing the principal melodic interest traverse a range greater than that of a perfect twelfth. Those exceeding that limitation include the fourth, fifth, and seventh variations. The widest ranges occur in the fourth variation (diminished eighteenth) and the seventh variation (diminished seventeenth).
II. CONTOURS

The melodic contour of the theme is uniformly maintained throughout the work. Due to the character of the theme there is a marked tendency for each of the melodic entities to reach a high point somewhere at two-thirds of its length, the climb being accomplished by two or more rising arches, and the high point being followed by a line descending into the cadence.

III. CADENCES

Melodic cadences, unsupported by harmony or counterpoint, are seldom used in the work because they coincide with terminal cadences such as the half-cadence in the frame of phrase structure.
CHAPTER VI

THE CONTRAPUNTAL IDIOM

The melodic conduct of the individual lines in the contrapuntal textures is in character with the melodic idiom of the thematic lines of the work, favoring diatonic intervals, and predominantly conjunct motion with a few disjunct intervals which are characteristics of vocal style melodic writing.

The contrapuntal scheme is usually exercised in writing voice (s) against the thematic material in each variation, rather than the use of imitation, except for rhythms.

I. DISSONANCE CONTROL

As it was indicated earlier, few tied notes across the bar lines are found in the work, though some unprepared suspensions, resolving in the manner of conventional practice, are found. For example, there are 2-3 and 4-3 suspensions in measures 37-39 of page 3 which resolve properly.

17
Unusual treatment of dissonance is found in measure 245 of page 19 between violins and contrabass. While the violin is tied over, the contrabass keeps moving down to B-flat forming an interval of major ninth. When the violin voice is ready to resolve an accented passing tone is used in the contrabass line, delaying resolution a half beat behind, as illustrated in Example 6.

Ex. 6. P. 19, m. 145-146.

This is an exceptional example, however. Common dissonances are employed throughout the work, such as passing tones (accented, unaccented), double passing tones, neighboring tones, cambiata, and so on.

II. RHYTHMIC RELATIONSHIPS

Another feature of contrapuntal writing is rhythmic
independence of the voices. There are places where one voice imitates the other voice in terms of rhythm. This has not been done intentionally, but rather it has happened as a result of rhythmic voice leading.

III. CADENCES

Cadences in passages of contrapuntal texture occur in two ways. Instances, in which the lower voice moves down a major second while the upper voice remains stationary, are shown between measures 42-43 of page 3 and measures 171-172 of page 23. The second type is stepwise contrary motion which forms a cadential progression between measures 83-84 of page 7.
CHAPTER VII

THE HARMONIC IDIOM

I. VERTICAL SONORITIES

The vertical sonorities in the work include predominantly major and minor triads, major-minor seventh chords, altered chords such as Italian sixth, and diminished seventh chords; however, unconventional sonorities are used in the ninth and tenth variations for the percussive orchestral effect.

Traditional Chords

Since the work was not intended to be serial but tonal, tertian relationships are the prevailing phenomena in the work. As a result of contrapuntal voice leading various chords of tertian construction have been created, such as the diminished-minor seventh, augmented-major seventh chords, and other higher chords of various combinations.

However, the traditional chords used intentionally
in the work are major and minor triads, dominant seventh chords (measure 10 of page 2), Italian sixth chords (measure 228 of page 28) and diminished seventh chords (measure 230 of page 28).

**Unconventional Sonorities**

Unconventional sonorities used intentionally may be found in the sixteen measures beginning in measure 203 of page 25. As is shown in Example 7, four-tone clusters are constructed from two perfect fourths interlocking at the interval of a major second.

Ex. 7. P. 25. m. 203-204.

![Example 7](image)

The other four-tone clusters used are a major third and a minor third interlocking at the interval of a major second as shown in Example 8.
In these particular passages the intervals of open fifths (perfect fourth being the inversion of perfect fifth) and octaves are favored as well as seconds, because the feeling of Korean folklore can easily be produced by using the harmony of fourths. In the theme the interval of seconds is predominant, so it was the composer's intention to favor this interval.

II. CHORD SUCESSION

Because of the prevailing tertian sonorities, all chord progressions are conventional; but as a result of a linear creation of the voices, root progressions do not dominate the work. The progressions of sounding bass are mostly step-wise. The interval of fourths is the most ideal to harmonize oriental melody. However, this interval has
not been observed strictly except for the last two variations. The interval of thirds of sounding root progressions is used also in conformity with tertian sonorities.

III. CADENCES

Although modal harmonies are not used, there are some modal cadences that may be found in measure 16 of page 2, measures 127-128 of page 15, and measures 170-171 of page 23. Elided cadences also occur several times in measures 28-29 of page 2, measures 36-37 of page 3, and measures 127-128 of page 15. The unusual internal cadence in measure 136 of page 17 invites comment. Instead of cadencing on the dominant, this antecedent phrase cadences on the relative major tonic, which is an E-flat major chord and the mediant of c-minor. Dominant six-four chord is used instead of root position in measures 170-171 of page 23.
VITA

Born in Seoul, Korea on September 16, 1937, Jae Eun Ha was educated in the public schools of that city and was graduated from Kyung Bok Boy's High School in 1956. The following March he entered Han Kuk Theological Seminary, and in March, 1960, he received a Bachelor of Divinity degree in Theology.

His musical career started at the age of eleven during the Korean War in a small country church playing an organ. Since then he was involved in different churches in Seoul directing choirs and playing organs. His first composition to be performed in public was the Class Song for a girl's high school, which his sister attended.

He was the chairman of music department of The Student Government Association of Han Kuk Theological Seminary for two years, when he felt an urgent need of trained church musicians in his country. Such a feeling motivated his coming to the United States of America.

In January, 1965, he came to the United States of America and studied Sacred Music at Johnson Bible College,
Knoxville, Tennessee, for a year. In September, 1966, he transferred to The University of Tennessee and graduated with a Bachelor of Music degree in December, 1968.

He entered the Graduate School at The University of Tennessee in January, 1969, and received the Master of Music degree with a major in Music in August, 1969. He is a member of American National Music Honor Society, Pi Kappa Lambda.

He is married to the former I Hui Yim of Taejon, Korea.
THEME AND VARIATIONS
for
ORCHESTRA

A SUPPLEMENT TO
A THESIS
PRESENTED TO
THE GRADUATE COUNCIL OF
THE UNIVERSITY OF TENNESSEE

IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE
MASTER OF MUSIC

BY
JAE EUN HA
AUGUST 1969