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Symphony No. 1.

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SYMPHONY NO. I

A Monograph

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Musical Arts

in

School of Music

by

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MANUSCRIPT THESES

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ABSTRACT

Symphony No. I is in three movements. It uses twelve-tone technique throughout. The meters are serialized in movement two.

The all-interval set C, D, A, G, G-sharp, E, C-sharp, F, B, A-sharp, and D-sharp was chosen by experimenting with various all-interval sets to determine melodic and permutational possibilities.

Movements I and III are in sonata-allegro form and movement II is a rondo in bogen form. The development sections of movements I and III employ the thematic material from the themes in the exposition rather freely.

Each movement begins its opening theme by first stating the row in one voice as part of the opening thematic material. Then as the music progresses the basic texture changes using two-voice, three-voice, four-voice, six-voice, and/or twelve-voice combinations or some variation of these textures.

At the outset, the basic number of voices is serialized in each movement, but then considerable latitude is taken as the music progresses and taste suggests changes.
DISCUSSION OF SYMPHONY NO. I

The symphony as a form has proven its usefulness in the twentieth century in its ability to function outside of the tonal system. This has been demonstrated through its use by composers up to recent times. The cohesiveness that is brought about by thematic repetition and contrast along with other factors indicates that it can function successfully apart from tonality.

Symphony No. I is divided into three movements. The first and third movements are fast and the second is slow. Twelve-tone technique and some of its ramifications comprise the melodic and harmonic derivation. Modified sonata-allegro and bogen forms are used. Clear bridge passages and contrasting themes help to delineate the form.

The writer chose the all-interval set C, D, A, G, G-sharp, E, C-sharp, F, B, A-sharp, D-sharp, F-sharp. The melodic contour of this set together with its possibilities as to vertical intervals provide the thematic and harmonic material.

The matrix is constructed with the set-forms at each pitch level. O means the prime form of the set, R means the retrograde, I means inversion, and RI indicates retrograde inversion. The matrix for the symphony is given below:
Fig. 1. The Matrix Based Upon an All-Interval Set.

The matrix was used to provide the four set-forms and all of the transpositions.

Hexachords are restricted to dividing the set in half with the first hexachord indicated as \( \text{Hx}_1 \) and the second as \( \text{Hx}_2 \). No other hexachords are used. Sets are indicated by 0 for original from left to right, R for retrograde from right to left, I for inversion down, and RI for retrograde inversion up.

Since ordering the number of voices is part of the compositional process of this work, it is indicated by the number to the right of the set indication. The number below
indicates the transposed set-form upward by half steps. For example: \( R \ 2 \) where \( R \) means retrograde, \( 2 \) means a two-voice texture, and \( 7 \) means transposition up seven semitones from the first pitch class of the retrograde.

Movements I and III are in modified sonata-allegro form and movement II is in bogen form.

The themes of movements I and III are set off from the bridge passages by changes in the motion of the notes and changes in texture. Bridge passages are usually identified by sustained chordal harmonies in a mostly concerted tutti style while the themes in both the exposition and the recapitulation have more contrapuntal complexity most of the time. The bridge passages provide contrast, space between the important themes, and lead into the theme that follows.

Each development section in movements I and III begins with a twelve note verticalization that is repeated. This allows the greatest freedom possible from the pitch restriction of a linear statement of the set. As the development section continues it leads into verticalized hexachords, begins to use thematic material from the exposition in various ways, and goes on to four, three, two, and finally to one voice in a pure linear statement. In movement I the linear statement is based on \( 0 \) and in movement III it is based on \( RI \). Thematic material used in the development section is taken directly from the exposition with little melodic change. The purpose is to emphasize melodic
expression, preserve cohesiveness, and strengthen form through melodic repetition and melodic contrast. Also, the thematic material as borrowed from the exposition and used in the development is kept in the same basic order in which it occurs in the exposition.

The recapitulation is, in general, a restatement of the exposition, but with the addition of more voices in some passages. Also, it is shorter in length than the exposition.

Movement II is in bogen form. It may be shown as A, B, A^1, C, A^2, B(D), A. Theme A uses set-forms R, I, R in pure linear form all through the movement. This is accompanied by set forms I, R, I in three voices also occurring all through the movement where theme A is used. Nowhere in movement II is the linear form of 0 used in one voice by itself. R is used as the principal melody of all A sections in contrast to 0 at the beginning of movement I and in contrast to RI at the beginning of the main theme of movement III. The other themes in movement II provide relief from theme A, contrast with it, and help lead to its return.

Movement III differs from movement I in that each section is marked off by a change in meter except when going from the second theme to the second bridge and when going from the closing theme to the development. Movement III is generally more contrapuntally complex than the other movements. Expression throughout the symphony is, in part, controlled by the number of voices used in addition to other techniques.
The six-measure introduction to movement I uses vertical hexachords in the strings from set-form 0. The ascending melody played by the first violins helps lead to the main theme while the bass line descends, increasing the distance from the lowest to the highest pitches.

The main theme which begins in m. 6 uses the pure linear form of 0. Combined with this, resulting in two-voice counterpoint, is a linear statement of R. Set-form I is used to continue the main theme in two-voice counterpoint. This leads to RI in three voices. The main theme then is derived from the above uses of the set-forms which gradually submerge the pure, linear aspect of the set within the added voices.

The first bridge alternates Hx₁ with Hx₂ in sustained chords against a freely derived eighth-note arpeggiation by the horns. The second theme uses set-forms R, RI, I, R. It is generally more lyrical than the main theme and occurs with denser texture as voices are added in both woodwinds and in strings. The second bridge is a two-voice statement of I that contrasts with the denser texture of the second theme. It leads rather quietly to the closing theme. The closing theme begins using 0 in three-voice counterpoint. It continues with I in four voices, then with RI in two voices, and finally concludes with R in three voices.
Each theme is ordered as to the number of voices. The main theme begins with a one-voice statement of 0. The second theme begins with a two-voice statement of R. Then the closing theme begins with a three-voice statement of 0. This is done for variety and to avoid a linear statement of the set in the melody except at the beginning of the main theme. Also, adding voices increases the density of the texture. In a contrapuntal setting it may also tend to increase the feeling of motion.

The development begins with an unordered twelve-note chord. This freedom is congruent with the idea of a development section. The rhythm of this reiterated chord relates to the rhythm of the introduction and bridge passages. From twelve voices the texture goes to six voices where $Hx_1$ of 0 is the horn melody played against $Hx_2$ of 0 as the pizzicato string accompaniment.

In m. 100 the thematic material enters like a fugue subject and leads to a four-voice texture. Once again this material is taken from the main theme. In m. 109 the main theme fragment from mm. 28-33 occurs with R as the set-form. Beginning in m. 114, RI uses the rhythm pattern from the introduction and the first bridge as horns play a unisonal, arpeggiated fragment from the first bridge. This horn fragment is taken from page 8 of the score.

In mm. 132-135 twelve-note chords occur which are rhythmically like part of the introduction and texturally like the beginning of the development.
The fragments used in the development that are taken from the exposition are in the order in which they occur in the exposition.

The recapitulation begins in m. 136 using 0 in a pure linear statement against R, as in the exposition. Most uses of the row are in the untransposed form.

In movement II a meter change occurs each time a new theme appears. Theme A uses $\frac{3}{2}$ followed by $A^1$ in $\frac{4}{8}$, $A^2$ in $\frac{5}{8}$, and finally returns to A using $\frac{3}{2}$. This gives added variety to theme A since the same meter is not paired with any theme repetition except A at the close of the movement. The meter changes help to create interest by contrasting different rhythms as theme A is repeated and thus varied. When A finally returns at the end of the movement, as it is first stated, it gives a feeling of completeness.

Just as the textures are ordered by adding a voice or voices, the meters in movement II as paired with theme A are ordered by adding a beat to each meter signature with each repetition of A. This results in A in $\frac{3}{2}$, $A^1$ in $\frac{4}{8}$, $A^2$ in $\frac{5}{8}$, and finally the return to A in $\frac{3}{2}$. Theme B was paired with $\frac{5}{8}$ for contrast between theme A and $A^1$ as were the rest of the meters that were paired with themes other than A and its variants.

Set-form R begins movement II, in contrast to 0 that begins movement I and RI that begins movement III. I then follows for intervallic contrast, and then R returns. This creates a kind of ABA form in miniature with relation
to the sets. Combining with R, I, R is I, R, I to create symmetry. Then, since RI has not been used, it occurs in theme B and is combined with 0. The statement of the first two themes then makes use of all four mirror forms. A¹ uses the same set-forms as A but R and I are transposed. Theme C uses 0 in the melody for the first time, but it is in three voices. However, both 0 and R are linear in the lower voices as accompanimental material. Theme A² uses R, I, R over I, R, I, again transposed, and theme B(D) uses RI over 0, which relates to the earlier use of theme B. The placement of RI over 0 between theme A and its variants completes the use of all four mirror forms at both the beginning and the end of the movement. The return of A at the end using R, I, R over I, R, I in \( \frac{3}{2} \) meter contributes to the cohesiveness of the form.

Hexachordal use of R begins in m. 27 sounding over the three-voice counterpoint of I. There is much use of linear hexachords throughout this movement and in conjunction with canonic interplay. The rise and fall of dynamics is mostly gradual and smooth, but contrasting this is the agitated, accelerated passage in mm. 46-51 which is climactic in nature. The movement comes to a quiet close.

Movement III begins with a linear statement of RI which begins the main theme. Following this is 0 in two-voice counterpoint with R in three voices over 0. Then I as a pure linear statement over R in six voices. This adding of voices increases excitement and builds toward a climax at the
same time submerging the linearity of the set within the texture. Later as in movement I it emerges out of the development section to sound in bold relief.

The first bridge is comprised of three measures of six voices, then three measures of four voices. R is the set-form used. The bridge builds toward the second theme which makes use of combined linear hexachords.

The second theme uses all four mirror forms as does the main theme. There are three meter changes within the second theme as there are within the main theme. Climax is created by increasing the spread of the pitches, increasing the dynamic level, and adding to the number of voices. There is also canonic imitation, rhythmic in nature, in movement III.

The second bridge employs vertical hexachords beginning with m. 75. It begins adding a tone to each vertical statement in m. 76 until by m. 78 twelve tones are reached in a chord based mostly on fifths. In mm. 77-78 linear hexachords sound against this repeated chord which leads to a sustained woodwind chord of twelve tones, now based on fourths.

The closing theme begins by stating the complete RI by the cello. The voices are varied as to number in this theme also and once again all four forms of the set are used. Although the closing theme begins in alla breve, it quickly changes to \( \frac{6}{3} \) in m. 85 and remains in that meter until the development section, where alla breve occurs. The use
of $\frac{6}{8}$ here helps to achieve contrast between the development and the exposition.

The development section begins with a twelve tone chord. It quickly moves to the chordal hexachords of $0$ with linear hexachords of $0$ also played against them. From this the texture changes to four voices using $0$, to three voices using $I$, to two voices using $RI$, and finally to one voice in a pure linear statement of $RI$. At the point where the statement of $RI$ begins so does the recapitulation. The development section makes use of linear hexachords and the repetition of thematic material.

The recapitulation uses thematic material from the exposition freely, along with some ideas from movement I. This is done to help tie the work together as a whole as in cyclic form.
VITA

William R. Boyd was born in Carver, Kentucky, in 1935 the son of a Protestant minister. He spent most of his childhood in Pennsylvania and was graduated from the Chambersburg Area High School in 1953.

He received a B.A. in music from Central Bible College in Springfield, Missouri, in 1957, the M.Ed. from Western Maryland College in 1963, and the M.Mus. in music theory and composition from Temple University in 1968. His composition teacher at Temple University was Clifford Taylor.

He is presently pursuing the D.M.A. degree in musical composition at Louisiana State University under the guidance of Dr. Kenneth Klaus, who is his composition teacher and major professor.

His professional experience includes ten years as a music educator in the Red Lion Area Schools in Red Lion, Pennsylvania, and ten years as Assistant Professor of Music at Bryan College in Dayton, Tennessee.

Mr. Boyd is married and has three children.
SYMPHONY NO. 1

by

William R. Boyd
Oct. 30, 1929
Instrumentation

Flutes

Oboes

Clarinet

Bassoon

Horns

Trumpets

Trombones: F, C

Tuba

Cymbals

Pianos, Celeste, Orchestral Colors

Antique Cymbals (or Glockenspiel)

Crash Cymbals

Score sounds as written except for normal 4th.
Symphony No. 1

 Allegro

Viola

Oboe

Clarinet

Fagot

Response

Harps (m.p.)

Timpani (m.p.)

Trombone

Solo Violin

Rapporto

Exposition of Corelli's Violin Sonata

Allegro

Analysis

Violin

Viola

Violoncello

Sarcasto

Movement II