EXPLORATIONS: A COMPOSITION FOR
EIGHTEEN-PIECE JAZZ ENSEMBLE

THESIS

Presented to the Graduate Council of the
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Fulfillment of the Requirements

For the Degree of

MASTER OF MUSIC

By

Isidore L. Rudnick, B.M.
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Explorations is a three-movement experimental work for eighteen-piece jazz ensemble consisting of the following instruments: soprano saxophone, alto saxophone, two tenor saxophones, baritone saxophone, two trumpets, two flugelhorns, three trombones, bass trombone, electric guitar, vibraphone, contrabass, drums and piano. The duration of the work will approximate twelve minutes.

The first movement features geometric configurations of spatially notated sound which emphasize percussive qualities of the ensemble (i.e. key clicks, tongue slaps, mouthpiece pops, etc.). Tone clusters of various pitch, texture and dynamics derived from blues scales provide the source material for the second movement. A slowly developing dynamic counterpoint creates the sound mass texture and delineates the form. Movement Three features a contrapuntal poly-metric collage of variations on a four-note theme. The collage provides the background fabric for an exchange of periodic and aperiodic events.
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INTRODUCTION

Explorations for eighteen-piece jazz ensemble attempts to fuse selected elements of jazz instrumentation, style and phrasing with selected compositional procedures found in the music of twentieth-century composers such as Witold Lutoslawski, Krzysztof Penderecki and George Crumb. Each of the three movements in the work focuses on various rhythmic, dynamic, melodic, harmonic or textural procedures. Characteristic of the entire work is an elaborate investigation of non-conventional methods of sound production, an area that has been often neglected in modern jazz ensemble literature.
The first movement of *Explorations* investigates the percussive qualities of the jazz ensemble through the use of pointillistic techniques and non-conventional methods of sound production. Geometric configurations of spacially notated sound provide the structure which allows for limited elements of chance to occur. Elaborate textural and dynamic procedures create a constantly evolving sound fabric throughout the movement.

**Textural Organization**

Textural organization for the first movement centers around geometric configurations of highly percussive sound (see page 7). Six circular configurations in the brass and saxophone sections and four rectangular configurations in the rhythm section make up the entire movement. All the configurations feature percussive sound events of indefinite pitch (i.e. valve clicks, tongued air, knocking and tapping, squeaks, etc.) and definite pitch produced in an unconventional manner (i.e. tongue slaps, mouthpiece pops, key slaps, etc.). Placement of these events in a circular configuration allows for limited chance operations such as simultaneous random selection of events by several players, and simultaneous selection of event durations by several players.

All percussive sound in the first movement is organized according to the amount of orchestral attack weight (power that the attack of the sound produces).
Numerical values, one through six, represent the smallest to largest amount of attack weight for each of the sounds in the brass and saxophone sections.

Figure 1. First movement attack weights.

<table>
<thead>
<tr>
<th>Saxophone</th>
<th>Trumpet/Flugelhorns</th>
<th>Trombones</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 tongued air</td>
<td>1 tongued air</td>
<td>1 tongued air</td>
</tr>
<tr>
<td>2 key slaps</td>
<td>2 valve clicks</td>
<td>2 fingernails on bell</td>
</tr>
<tr>
<td>3 pencil on bell</td>
<td>3 pencil on bell</td>
<td>3 slide bumps</td>
</tr>
<tr>
<td>4 tongue smack</td>
<td>4 mouthpiece pops</td>
<td>4 mouthpiece pops</td>
</tr>
<tr>
<td>5 tongue slap</td>
<td>5 valve click (loosen cap)</td>
<td>5 slide bumps (loosen bolt)</td>
</tr>
<tr>
<td>6 squeak</td>
<td>6 tongue slap</td>
<td>6 tongue slap</td>
</tr>
</tbody>
</table>

The first circular configuration in each section contains sounds with the three smallest attack weights: tongued air, valve clicks, key slaps, slide bumps and fingernail or pencil on bell of instrument. As the saxophone and brass sections move through the first four circular configurations, lighter attacks are gradually deleted from the texture and replaced with heavier attacks. Only three different types of percussive sound are used per configuration throughout most of the first movement, providing each one with an identifiable texture. In the fifth and sixth circular configurations, lighter attacks of sound present in the beginning of the movement are added to the heavier attacks resulting in more textural variety. The gradual movement from lighter percussive attacks to heavier ones and the eventual inclusion of both types of sound creates a subtle but steady textural crescendo throughout the movement.
In addition to changes in orchestral attack weight, various textural densities are present in the first movement and are divided into two basic categories: close, rapid, reiterations of sound separated by short periods of silence (i.e. thick textural density) and periods of silence penetrated by isolated attacks of sound (i.e. sparse textural density).

Figure 2. First movement textural densities.

The first and second circular configurations contain events which feature a thick textural density and, in combination with small amounts of orchestral attack weight, create an active but highly transparent exchange of sound. The third and fourth configurations, by contrast, contain events which feature a sparse textural density coupled with moderate amounts of orchestral attack weight. This combination produces a more powerful sound exchange transparent in nature because of the increased presence of silence. Finally, in the fifth and sixth circular configurations, thick textural density as well as large amounts of orchestral attack weight combine to create the textural and rhythmic peak of the first movement.

Set against these texturally evolving, constantly spinning circular configurations of percussive sound, the rhythms section presents a different, more controlled textural procedure. Four rectangular arrangements of sound lasting twenty-five to thirty-five seconds and separated by fifteen to twenty seconds of silence make up the first movement. Both placement and duration of these highly
percussive arrangements are precisely determined by the conductor. As with the circular configurations of sound, events in the rectangular configurations are categorized according to orchestral attack weight. The first rhythm section configuration contains piano, guitar, vibraphone, bass, and delicate drum sounds such as light tapping and plucking. Each subsequent rectangular configuration produces a heavier sound attack culminating with the slapping and striking of strings, bars and drum equipment in the fourth configuration.

Figure 3. First movement attack weights, rhythm section.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>light tapping</td>
<td>moderate tapping</td>
<td>heavy tapping</td>
<td>heavy slapping</td>
</tr>
<tr>
<td>plucking</td>
<td>light striking</td>
<td>heavy knocking</td>
<td>heavy striking</td>
</tr>
<tr>
<td>knocking</td>
<td>moderate striking</td>
<td>slapping</td>
<td></td>
</tr>
</tbody>
</table>

As the above figure indicates, rhythm section activity in the movement forms a steady textural crescendo of tapping, plucking, knocking, striking and slapping interspersed with durations of silence that parallel the textural crescendo found in the circular configurations.

**Dynamic Scheme**

In addition to orchestral weight and density changes which create subtle textural dynamics in the first movement of *Explorations*, an elaborate dynamic scheme is present. As shown in the diagram on page xxix, the brass and saxophone sections follow an independent progression of five dynamic markings ranging from *piano* to
fortissimo with no repetitions. One dynamic marking is used per circular configuration and applies to all sound events in that arrangement. The progression which begins in the trombone section (marked piano) in the opening of the movement is repeated three times with a different instrument section beginning and ending the process each time. This ensures a non-repetitive dynamic environment because no two adjacent circular configurations contain the same markings. The sixth and final circular configuration in the brass and saxophone sections contains abrupt dynamic changes from pianissimo to fortissimo.

The dynamic scheme in the rhythm section produces a similar but simpler progression. The first three dynamic markings are mezzo piano, mezzo forte, and forte and parallel the increase in orchestral attack weight that occurs in all instrumental sections in the first movement. By using this parallel dynamic growth, the rectangular configurations of sound become momentary textural windows transparent enough to veil but not hide the sound fabric created by the circular configurations. In the fourth rectangular configuration, the rhythm section joins the other instruments in outbursts of abrupt dynamic changes which bring the movement to a close.
MOVEMENT TWO

The second movement of Explorations presents a variety of timbral and textural sound masses which feature muting, muffling, scraping and bowing. A predominance of slowly developing dynamic counterpoint delineates the form and emphasizes the horizontal aspects of the music. Eight series of four-note tone clusters derived from blues scales provide the pitch material for the movement.

Form

The form of the second movement consists of an introduction, three sections approximately forty to sixty seconds in duration and a coda, all representing an elaborate investigation of dynamic counterpoint. Dynamic counterpoint is defined as a simultaneous occurrence of differing dynamic shapes such as crescendi and decrescendi.

Figure 4. Dynamic counterpoint.

All dynamic procedures in the three main sections of the movement occur within a larger crescendo which is created gradually through systematic addition of timbral
and textural events, pitch density and harmonic dissonance (refer to diagram on page xxx).

**Dynamic and Textural Procedures**

The four-measure introduction of the second movement features a multi-layered dynamic scheme of crescendi and decrescendi three or six seconds in duration. The scheme, determined by serial procedures, produces twelve different dynamic patterns, each four measures in length. The absence of any pitch articulation and the presence of simultaneously occurring dynamic movement create waves of sound which foreshadow the activity in the third section of the movement. Textural events, presented by all instruments later in the movement, occur only in the rhythm section where scraping sounds predominate (e.g. coin on cymbals and vibraphone bars, pick scrapes on guitar, piano and bass strings).

The first section of Movement Two features dynamic counterpoint involving only crescendi. After an initial tutti crescendo, a series of dyadic crescendi (i.e. two different instruments simultaneously increasing volume on two different pitches), weave their way through the ensemble in seven to ten second durations. The crescendi are horizontally spaced in decreasing time increments from five seconds to one second (see measure 7 in the score). This process reinforces the larger structural crescendo by releasing a greater proportion of pitches as the section unfolds.

Textural events increase in the first section to include limited muting effects in the brass as well as continued scraping sounds in the rhythm section. Textural
muted and non-muted crescendi.

By contrast, the second section of Movement Two features triadic
decrescendi of seven to ten seconds in duration which unfold in expanding time
increments of one to five seconds. This procedure represents the dynamic
retrograde of the one in the first section of the movement (see measure 16 in the
score). The dynamic procedure is then repeated, expanding the duration of the
section and allowing for elaborate textural exploration.

Textural exploration in the second section of the movement occurs through
alteration of virtually every instrument’s sound in the ensemble. The following
conventional and non-conventional methods of altering sound are employed:
muting, muffling, bowing, brushing and altering sound through electronic effects.
The muted and muffled textures of the brass and saxophone sections (i.e. cup mute,
straight mute, plunger, harmon mute, in stand, paper over bell) compliment the
resonant textures in the rhythm section (i.e. bowed cymbal and vibraphone, wire
brush glissandi inside the piano and guitar flanging effects). The slowly developing
decrescendi in the second section provide the necessary environment in which both
the muted and resonant textures can coexist.

In the third section of Movement Two, eight dynamic patterns from the
introduction return in a slightly altered format. Instead of occurring simultaneously,
dynamic activity horizontally unfolds in staggered intervals of two seconds.
Recurring tetrachordal crescendi and decrescendi of four and five second durations
swell and retreat creating sound waves of subtle attacks and releases (see measure
29 in the score). Textural events in this section focus on the piano, drum set and
vibraphone where tremolo effects and sweeping glissandi predominate. This activity leads to the dynamic climax of the second movement in measure 63 where staggered decrescendi resolve to a tutti piano and then escalate to fortissimo at the close of the third section.

Finally, the coda of the second movement features two dynamic patterns from the introduction dispersed throughout the ensemble in four-second crescendi or decrescendi. This mixed dynamic activity, highlighted by muted and muffled textures identical to those in the second section, yields to one final crescendo of paper rustling which segues into the third movement.

Pitch Organization

All pitches in the second movement are extracted from a 32-note series consisting of eight four-note clusters. Each cluster contains the first four pitches of a specific blues scale and is constructed so that the roots of each, when stacked vertically, form an altered dominant chord.

Figure 5. 32-Note series at measure five.

This chord, hidden among other pitches in the series, first appears in the key of F and later in the movement is transposed to the key of Bb and C. The entire 32-note series functions as a dissonant replacement for the traditional dominant
seventh chord thereby creating an alternate harmonic variation of the blues progression.

The first section of Movement Two features dyads extracted from each of the four-note clusters and spaced a minor third apart. The minor third interval is significant because it represents the first interval in the blues scale. Horizontal placement of the dyads is determined by pitch range which is numbered from lowest (1) to highest (8). Each one of the four-note clusters, from which the dyads are derived, represents a different pitch range. The numerical succession of pitch ranges for the first section is illustrated in the following graph:

Figure 6. Dyadic pitch ranges in measures 7-13.

```
    7       8
   6   5
  4 3 2
middle C -----------------------------------------
1
```

The above pitch ranges are selected so that no two are repeated and that no adjacent ones occur successively. This in combination with the varied instrument selection within and between each dyad creates timbral variety in the first section of Movement Two.

The entire 32-note series is transposed down to the key of Bb in the second section of Movement Two and triadic clusters spanning the interval of a perfect
fourth are presented. Horizontal placement of the triadic clusters represents a reverse of the numerical order in the first section (i.e. 2, 6, 8, 3, 5, 1, 4, 7). The overall pitch range of the triads in the second section ventures lower because of the transposition down by a fifth.

Figure 7. Triadic pitch ranges in measures 16-28.

```
  8
  7
  6
middle C:-----------------------
  5
  4
  3
  2
  1
```

The close of the second section repeats the above process transposed to the original key of F while the triadic clusters increase in interval span to that of a tritone.

The third and final section of Movement Two transposes the 32-note series up a fifth to the key of C and then down a ninth to the key of Bb. All pitch activity in this section is placed above a constant or recurring harmonic pedal that represents the root of each series. The section features open tetrachords which for the first time in the movement contain intervals greater than an octave. For the series built on C, all four pitches within the tetrachord are selected from two adjacent or nearby pitch ranges (i.e. 1 and 2, 3 and 5, etc.) and span the interval of a perfect fifth. Horizontal placement of these tetrachords is organized so that
no exact pitch range is repeated and only limited adjacent pitch range between
tetrachords is allowed.

Figure 8. Tetrachoral pitch ranges in measures 29-34.

<p>| | | | |</p>
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<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

middle C

1 2 3 4 5 6 7

The result is a great amount of timbral variety both within and between tetrachords.

For the series built on Bb in the latter part of the third section, all pitches
within the tetrachord are selected from four adjacent (i.e. 2, 3, 4, 5, etc.) or two
adjacent and one or two nearby pitch ranges (i.e. 2, 3, 5, 6; 2, 3, 4, 6, etc.) and
span octave transpositions of the minor seventh. Because of their large vertical
range, horizontal placement of these tetrachords is structured so that two exact pitch
ranges from the previous tetrachord are repeated and any adjacent pitch range
between tetrachords is allowed.

Figure 9. Tetrachordal pitch ranges in measures 36-43.
This process creates the greatest amount of timbral variety within a chord structure (i.e. four different instruments, four different pitch ranges) and represents the rhythmic climax of the movement.

The coda of the second movement, in addition to the introduction, features unison and octave transpositions of the pitch F. When placed at the beginning and end of a series which represents the other interval spans in the movement, the unison/octave transpositions complete an exact intervallic outline of the blues scale (refer to diagram on page xxx). These steadily increasing vertical ranges, together with the gradual acceleration of pitch density and harmonic dissonance, produce the structural crescendo of the movement.
MOVEMENT THREE

The third movement of Explorations features a contrapuntal polymetric collage of variations on a single four-note motive. The collage is formed by the gradual increasing of pitch and rhythmic density as well as an elaboration of harmonic and dynamic procedures. The combination of these elements provides the background fabric for an exchange of melodic, periodic questions and dissonant aperiodic answers.

Pitch Organization

All harmonic and melodic pitch material in Movement Three is derived from a four-note motive consisting of two consecutive major third intervals followed by a perfect fourth.

Figure 10. Four-note motive.

With the exception of the major sixth, all intervals in the four-note motive (i.e. major third, augmented fifth, minor ninth) play important structural roles throughout the movement.

The melodic foundation of the contrapuntal collage begins in the bass and later occurs in the baritone saxophone and places the four-note motive over a
period of seven measures. The placement occurs such that the first, third, fifth and seventh notes of the phrase spell the four-note motive, while the second, fourth, sixth and eighth notes represent a slight variation of the motive (i.e. two major thirds followed by an augmented fourth). At the end of measure 8, the phrase is repeated in retrograde form while also syncopated and transposed down one semitone. The entire fifteen-measure procedure is then repeated one semitone above the original, producing the following pitch roots of each phrase: C#, C, D and C#. Continuation of this procedure results in a gradual ascension of pitch range based on repetition and provides a stable foundation for the collage (see pitch organization chart on page xxxi).

The vibraphone entrance in measure 2, beginning a major second above the bass entrance, produces the first harmonic material in the movement. Dyads, spaced a minor ninth apart, are layered over the bass line in four-measure durations separated by half, dotted quarter and quarter rests in alternating fashion. The roots of each successive group of three dyads outline an augmented triad, first by leaping an augmented fifth and then by filling in a major third. The root movement between each group of three dyads represents the inversion of the root movement of each bass phrase (i.e. Eb, E, D, Eb), but in contrast to the base line, octave transpositions are employed for registral contrast. In measure 32 and 61, minor ninth dyads spaced a major third above the previous dyads are added to the vibraphone texture, forming two augmented triads a minor ninth apart. This results in an identical interval formation to that of the four-note motive.

Coinciding with the increased pitch density in the vibraphone is the entrance
of trombones 1-3 and tenor saxophone 2 which features four-note pulsed glissandi. Each glissando contains two minor second and one major second interval and descends or ascends the distance of a whole tone over four beats.

Figure 11. Pulsed glissando measure 32.

The roots of each successive group of four glissandi outline the four-note motive while the first root of every four glissandi outlines transpositions of the root movement of each bass phrase, determining the key of the four-note motive (refer to pitch organization chart on page xxxi).

The piano entrance in measure 46 articulates the first note values of short duration in the movement. Syncopated eighth note and quarter note clusters consisting of eight pitches punctuate the legato background provided by the bass, vibraphone, cymbals, trombones, and tenor saxophone. Each piano cluster consists of four pitches a whole tone apart in the left hand and an identical formation a minor ninth higher in the right hand. The result is a dissonant whole tone chord occurring in two keys simultaneously. Paralleling the root movement in the vibraphone, the roots of every two piano clusters in both hands represent the inversion of the root movement pattern in the bass. Paralleling the interval distance within each cluster, the root movement of every two cluster group is that of a whole tone (refer to pitch organization chart on page xxxi). After outlining the whole tone
scale in descending fashion, the six roots are transposed down a minor second and repeated. As in the vibraphone figure, octave transpositions of pitch roots are prevalent.

Measure 61 represents the first entrance of the four-note motive in its original rhythmic form and is introduced by alto saxophone, muted trumpet and bass trombone. The motive unfolds in groups of four melodic variations on the original: transposed retrograde (i.e. A, E, C, Ab), transposed retrograde (i.e. D, A, F, Db), transposed retrograde with octave displacement (i.e. G, D, Bb, Gb) and transposed original with fourth pitch of series occurring second (i.e. C, Db, E, G#). The roots of each motive are spaced a perfect fourth apart and continue the cycle of fourths until all keys have been completed. After completion of the cycle, the process is transposed up a minor second from the last pitch root of the previous cycle.

All the aforementioned contrapuntal procedures provide the background fabric for an exchange of melodic events which begins in measure 89 with first and third trumpet and soprano saxophone. The first melodic event takes the form of a fourteen-note atonal question in a jazz style (i.e. swing eighth notes and triplets, pitch slides, plunger sounds) that concludes with the descending major third interval. Pitch selection for the atonal question is determined by random procedures which allow for repetitions of notes and the presence of an ascending and descending augmented triad.
The question is immediately followed by a dissonant answer in the guitar, fourth trumpet, and first tenor saxophone which features melodic combinations of the minor second and major third intervals (refer to measure 94 in the score). This initial exchange sets off a series of related confrontations between periodic questions of increasing duration and aperiodic answers of increasing pitch density, range and duration. Pitch material for all aperiodic answers in the movement is either derived from the four-note motive or the root movement pattern in the bass. Aperiodic answers that occur first, third, fifth, etc. in the series derive their pitch material from the four-note motive, while answers that occur second, fourth, sixth, etc. derive their material from the root movement pattern in the bass. The confrontations which escalate in volume and increase in dissonance over ninety measures lead to the climax of the movement in measure 182.

Pitch operations for the climax of the movement feature the following three events: repetitions of fragments from earlier aperiodic activity, repetitions and octave transpositions of the major third interval, and improvised pitch flurries. The above events occur in three intermittent bursts before a final unison major third, identical to the first interval of the movement, closes the work.

Rhythmic Organization

Rhythmic organization in Movement Three is based on an accent pattern
extracted from the first nine measures of a Charlie Parker composition entitled, "Au Privave". Characteristic of this pattern is a shifting metric emphasis between triple and duple time.

Figure 13. Rhythmic accent pattern from first nine measures of "Au Privave".

Accordingly, all periodic metric procedures in the movement incorporate 3/4 or 4/4 subdivisions.

The rhythmic foundation of the contrapuntal collage occurs in the bass through alteration and repetition of the first measure of the accent pattern. Alteration occurs by expanding the quarter note to a dotted quarter and the eighth note to a dotted quarter tied to a dotted half note. After three such repetitions of the figure, a 4/4 measure is inserted for rhythmic displacement and the process is repeated. This results in a very rhythmically repetitive and stable foundation for the collage.

The next important rhythmic structure occurs in the drums in measure 16 and divides the accent pattern into several short fragments dispersing them over approximately thirty measures. No fragment contains less than two or more than four notes. This process leads to the original accent pattern in measure 76 and coincides with the introduction of an atonal quarter note walking pattern in the bass. The original accent pattern is performed using the entire drum set (i.e. rims,
shells, cymbals and heads) and concludes with a short improvised aperiodic fill which increases one beat in duration every repetition. This glimpse of aperiodic activity foreshadows the sweeping aperiodic gestures later in the movement and creates a more interesting rhythmic counterpoint by placing the accent pattern in different rhythmic locations within the collage.

Isolated eighth and quarter note attacks interspersed between two and three measures of silence characterize the rhythmic structure of the piano entrance in measure 46. Each syncopated or non-syncopated attack either coincides with an identical rhythmic value in the drums or occurs when no drum activity is present. This results in a traditional written out comping pattern for piano which reinforces the accent pattern of the drums and fills out the collage texture.

The next rhythmic structure of importance occurs in measure 61 and represents repetitions of the rhythm found in the first measure of the accent pattern. Alto saxophone, muted trumpet and bass trombone subdivide the dotted quarter note into three eighths, creating four even eighth notes that make up the rhythm of the four-note motive previously discussed. These four, even eighth notes are separated by four quarter note rests, except when preceded by a 4/4 measure in which case the rest is three counts in length. The result of this procedure is a one-beat rhythmic displacement occurring every sixteen measures.

The last periodic rhythmic structure of the movement occurs in measure 89 and borrows three syncopated eighth notes from the second measure of the accent pattern. The three eighth notes begin the trumpet and soprano saxophone phrase which recurs a total of five times, thereby acting as a unifying rhythmic motive
throughout the middle part of the movement.

Aperiodic rhythmic structure in the latter half of Movement Three is organized according to patterns of rhythmic density. Each instrument in the ensemble is assigned a number between one and six representing the number of pitches to be performed in close succession followed by a short period of silence. Each successive occurrence of every aperiodic rhythmic pattern increases in duration producing a diverse rhythmic texture which continues through the climax of the movement.

The rhythmic climax of Movement Three features intermittent fragments of earlier aperiodic activity separated by repetitions of the first two and one half measures of the accent pattern (see measure 182 in the score). This symbolizes the last rhythmic conflict between periodic and aperiodic events and leads to the final crescendo of rhythmic activity in the movement.

Dynamic Scheme

The dynamic scheme of Movement Three features several different recurring patterns of adjacent dynamic levels (e.g. piano, mezzo piano, mezzo forte or mezzo piano, mezzo forte, forte, etc.). These patterns occurring in the vibraphone, drums, trombones/tenor saxophone, piano, trumpet/alto saxophone/bass trombone, and trumpets/soprano saxophone unfold within a larger structural crescendo that is created through the gradual addition of pitch and rhythmic density throughout the movement. Each of the above instrumental groups continues this dynamic pattern, increasing one level in volume before the climax of the movement. This results in
a varied dynamic texture which highlights different instrumental groups within the collage and parallels the rhythmic diversity of the movement. The final dynamic gesture of the Movement Three features an enormous crescendo of aperiodic activity that escalates from pianissimo to fortissimo bringing the entire work to a close.
MOVEMENT ONE DIAGRAM

Saxes
Trpts.
Tbn.s.

Rhythm

\[ \text{mp} \quad \text{mf} \quad \text{f} \]
**MOVEMENT THREE PITCH ORGANIZATION CHART**

<table>
<thead>
<tr>
<th></th>
<th>Pitch roots of each motive entrance (¹ indicates pitch root of entire phrase)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bass</strong></td>
<td>c¹ f a d c¹ d e c d f¹ b b^b d a f c¹ e¹ g b e etc.</td>
</tr>
<tr>
<td><strong>Vibes</strong></td>
<td>e¹ b g e c g¹ d b f¹ e¹ b etc.</td>
</tr>
<tr>
<td><strong>Tbns/T. Sax 2</strong></td>
<td>c¹ f a d c¹ e g¹ d¹ d f¹</td>
</tr>
<tr>
<td><strong>Piano</strong></td>
<td>g¹ b f g f g¹ e f d¹ e etc.</td>
</tr>
<tr>
<td><strong>Bass Tbn./Trpt.2/Alto Sax</strong></td>
<td>a d g c f b¹ e¹ a¹ d¹ g¹ b¹ e¹ f b¹ e¹ b ...</td>
</tr>
<tr>
<td></td>
<td>b¹ e¹ a¹ ... g¹ b¹ e etc.</td>
</tr>
</tbody>
</table>
EXPLORATIONS
FOR EIGHTEEN-PIECE JAZZ ENSEMBLE

ISI RUDNICK

1991
ACKNOWLEDGEMENT

The author greatly acknowledges the invaluable assistance of Mr. Lawrence M. Srubas in the computer formatting and printing of text, musical examples, illustrations and score instructions for Explorations.
NOTATION

Spatial notation; no meter.

Spatial notation, regular beats

Spatial notation, irregular beats (dotted lines indicate subdivisions).

Tongue air through instrument, use tuht syllable.

Key slap, valve click.

Valve click, loosen valve cap to produce louder clicking sound.

Slide bump.

Slide bump, loosen connector bolt to produce loud rattling sound.

Tongue slap.

Tongue smack.

Mouthpiece pop.

Highest note possible on instrument (e.g. saxophone squeak, playing above nut on guitar, etc.).
Fingernails on bell.

Pencil on bell rim.

On pegs inside piano.

On felt hammers inside piano.

Behind bass bridge.

On bass bridge.

On bass tailpiece.

On drum shells.

On cymbal stands.

Rim shot.

Knock on body of instrument.

Slap strings with palm of hand and immediately dampen (for vibraphone, slap bars with drumsticks perpendicular to bars, no stick rebound.)

Depress piano key silently.

Produces harmonics (e.g. bow on cymbal rim or vibraphone bar, slapping piano pedal while silently depressing keys, etc.).
Fast coin or guitar pick scrape across cymbal, string or vibraphone bar (let vibrate).

Continued coin scraping in circular motion on cymbal.

Continued guitar pick scraping in back and forth motion across string. Number in circle indicates the string used (1 is highest).

Inside the piano glissando; arrow indicates range of glissando (let vibrate).

Pulsed glissando.

Rustle music paper on stand.

Rapid aperiodic flurries of pitches as indicated by contour line.

Pitches to be performed in rapid staccato manner. Accidentals apply only to the pitch they precede.

Indeterminate pitch.

Repeat in order for duration of extender.

Slurred chromatic fall.

Pitch slide up to indicated note.

Closed, open

Soft yarn mallet.
Hard yarn mallet.

Use mallet handles.

Wire brush.

Coin.

Guitar pick.

Drum sticks.

Rub sticks against cymbal rim.

Conductor cue.

Two-handed conductor cue.

Conductor cut off.
EXPLORATIONS

I

Isi Rudnick

Saxophones

Trumpets/Flugelhorns

Trombones

Electric Guitar (distortion)

Vibraphone

Contrabass

Drum Set

Piano

Events have been performed. Then move immediately to next circular arrangement (no cue) and repeat process. When last circle is reached, continue clockwise movement until cutoff. Performance time of each event is determined by the player, but should not exceed six seconds.

Upon cue, choose an event and continue in clockwise fashion until all events have been performed.
S. Sax

Alto Sax

T. Sax 1

T. Sax 2

B. Sax

Trpt. 1,3

Trpt. 2

Trpt. 4

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Guitar

Vibes

Bass

Drums

Piano