ORCHESTRA BELLS AS A CHAMBER AND SOLO INSTRUMENT: A SURVEY OF WORKS BY STEVE REICH, MORTON FELDMAN, FRANCO DONATONI, ROBERT MORRIS, MARTA PTASZYŃSKA, WILL OGDON, STUART SAUNDERS SMITH, LAFAYETTE GILCHRIST AND ROSCOE MITCHELL

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This dissertation considers the use of orchestra bells as a solo instrument. I use three examples taken from chamber literature (*Drumming* by Steve Reich, *Why Patterns?* by Morton Feldman, and *Ave* by Franco Donatoni) to demonstrate uses of the instrument in an ensemble setting. I use six solo, unaccompanied orchestra bell pieces (*Twelve Bell Canons* by Robert Morris, *Katarynka* by Marta Ptaszyńska, *Over* by Stuart Saunders Smith, *A Little Suite and an Encore Tango* by Will Ogdon, *Breaks Through* by Lafayette Gilchrist, and *Bells for New Orleans* by Roscoe Mitchell) to illustrate the instrument’s expressive, communicative ability. In the discussion of each piece, I include brief background information, the composer’s musical language in the piece and performance considerations. I interviewed composers of these solo works to complete the research for this document to discuss their musical language and their thoughts on writing for solo orchestra bells.
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Thank you Emily. You are everything.

Musical examples from the following solo works were used in the research portion of this document:

_Twelve Bell Canons_ by Robert Morris

_Katarynka_ by Marta Ptaszyńska (in the _Summit_ collection).

_Over_ by Stuart Saunders Smith (in the _Summit_ collection).

_A Little Suite and an Encore Tango_ by Will Ogdon (in the _Summit_ collection).

_Breaks Through_ by Lafayette Gilchrist (in the _Summit_ collection).

_Bells for New Orleans_ (in the _Summit_ collection).

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CHAPTER 1
INTRODUCTION

Significance

One of the most common percussion keyboard instruments, the glockenspiel, or orchestra bells, is often used for color and brilliance in orchestral and chamber works. The tuned steel bars of the bells are perfect for projecting over an orchestra or wind ensemble, but what potential does this instrument have as an unaccompanied solo instrument? Among the many fine collections of orchestral repertoire for the instrument there is almost no mention of its use as a solo instrument, yet there is no shortage of solos for orchestra bells in large ensemble literature. For example, Strauss’s Don Juan and Dukas’s The Sorcerer’s Apprentice both contain wonderfully written passages that prominently feature orchestra bells.

Similarly, there is an abundance of etudes written and literature transcribed for performance on orchestra bells. However, most of these pieces are to be performed on any percussion keyboard instrument available to the student performer, not specifically orchestra bells. Many method books discuss the use of orchestra bells but contain no solo pieces written specifically for them; Friedrich Hartung’s School for Vibraphone, Xylophone, Glockenspiel and Marimba (1966) makes no differentiation among the five instruments in the title. Morris Goldenberg’s Modern School for Xylophone Marimba and Vibraphone (1950) contains excerpts for orchestra bells, but there is no mention of the instrument in the etudes and pedagogical sections of the book. Musical collections such as Paul DeVille’s The Bell Soloist (1911), which features transcriptions of themes from Western art music (Donizetti’s “Sextet” from Lucia di Lammermoor, Meyerbeer’s Coronation March and Rossini’s William Tell) for orchestra bells are
There is a wealth of chamber music written by significant composers in which orchestra bells play a prominent role. *Ave* by Franco Donatoni, *Why Patterns?* by Morton Feldman, *Ice Age* by Henry Brant and *Des canyons aux étoiles* by Olivier Messiaen are wonderful examples of pronounced use of orchestra bells in chamber music. In each of these works the orchestra bells are equally important to the other instruments in the ensemble. Although these works demonstrate significant use of orchestra bells, they do not satisfy the criteria for unaccompanied, solo bell literature.

There exists a small body of solo literature, much of it unpublished, for the instrument that was composed from the latter half of the twentieth century into the first decade of this century. Among these early works are Stuart Saunders Smith’s *Thaw* (1993), David Bohn’s *Dream Flower* (1995), and Robert Morris’s *Twelve Bell Canons* (2005). A major development occurred in 2005 when Sylvia Smith of Smith Publications published *Summit*, a collection of ten compositions for unaccompanied orchestra bells. Smith commissioned ten prominent composers to produce brief solo works for the instrument. She states:

> It seems that orchestra bells had been a missed opportunity for composers and performers. Most everyone owns or has access to orchestra bells. I wanted to bring the instrument out of the orchestra and into a solo and chamber situation. I decided that this overlooked mallet instrument deserves a bigger repertory. What I’m trying to do is make a larger statement as a collection so what I had hoped to do is really present very different pieces in very different styles just to explore things people had not thought of before on bells. I got the variety from picking the composers. I knew that if they just did what they do best, there would be variety. I’m really happy for how it turned out.¹

The collection inspired an interest in solo literature for the instrument, resulting in the creation of new works and the revival of the earlier works.

¹ Sylvia Smith, telephone interview by the author, October 28, 2015.
Explanation of Method

Exploring this music shows how orchestra bells can bring delicate, expressive, bold and powerful solo music to the concert stage. This dissertation will bring further attention to the growing literature for solo orchestra bells. The research for this paper consists of three main categories: (1) a definition of modern orchestra bells, (2) discussion of its role in three significant chamber works, and (3) a survey of six solo, unaccompanied works for orchestra bells. The works from category 2 that will be examined in this paper are in Figure 1:

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<th>TITLE</th>
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<td>Steve Reich</td>
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<tr>
<td>Ave</td>
<td>Franco Donatoni</td>
<td>Chamber</td>
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Figure 1. Prominent use of orchestra bells in chamber music ensemble settings.

Each of the solo works from category 3 will include background information, discussion of the composer’s musical language, performance considerations and interviews with composers where applicable. The solos in this category and their compositional methods are in Figure 2:

<table>
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<th>TITLE</th>
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Figure 2. Six Solos and the Method with which they were composed.
An examination of these works will demonstrate the capacity of orchestra bell performers to create dynamic, colorful, expressive, solo musical performances.
Because the nomenclature of the instrument has been problematic in the past as well as among different nationalities, it is necessary to define the exact instrument to which this paper refers. A description of modern orchestra bells is found in *Percussion Instruments and their History* by James Blades. He writes that orchestra bells are: “a series of steel bars (on rare occasion an alloy) of graduated length, arranged in two rows chromatically. It is usual for the ‘back row’ to be raised. To maintain the maximum resonance the bars are supported on felt or similar insulation, or suspended at the nodal points.”\(^2\) The standard written range of the instrument is G3–C6 and it sounds two octaves higher than written. Thus, striking a written middle C (C4) will sound C6. Refer to Figure 3:

\[\text{Written} \quad \text{Sounds}\]

![Figure 3: Written and sounding range of orchestra bells.](image)

There are many variations in construction, range and other features among contemporary orchestra bells. Instruments with an F3 are common, and an extended-range 3.5 octave instrument (C3–E6) exists that is becoming popular among percussionists. Some of the newer models use tuned resonators and a damper pedal to affect the amplitude, timbre and sustain of

---

the instrument. Another variation is found in the placement of the accidental row. Some models are constructed so that the entire keyboard is flat; the accidental row is not raised. Compare standard orchestra bells and an extended model in Figure 4:

![Figure 4 showing standard orchestra bells (left) and extend range with damper pedal and resonators (right).](image)

One of the most important elements of modern orchestra bells is the mallet (the striking implement). Most mallets are made of two parts: the head (the part of the mallet that strikes the bar) and the shaft (the portion of the mallet the player holds, onto which is attached the head). See Figure 5:

![Figure 5: An example of orchestra bell mallets.](image)
Common materials for the head of orchestra bell mallets are plastic, acrylic, brass, rubber, and wood. The materials that make up the mallet head are typically arranged from soft (or very soft) to hard (or very hard). The shaft can be made of a number of materials, including birch, rattan, metal, and fiberglass. Through the selection of the instrument and mallets, the variety of timbres available to contemporary players seems infinite.
CHAPTER 3
ORCHESTRA BELLS IN CHAMBER MUSIC

There is a significant amount of chamber music involving orchestra bells that predates solo orchestra bell literature. Prominent composers utilized the instrument to enhance the orchestral color, expressivity, and articulation of their chamber compositions. Three notable works that significantly employ orchestra bells will be discussed: (1) *Drumming* by Steve Reich, (2) *Why Patterns?* by Morton Feldman, and (3) *Ave* by Franco Donatoni. Brief background information on the composer as well as an overview of their use of orchestra bells will be discussed.

Steve Reich’s *Drumming*

Background

In 1970, composer and drummer Steve Reich traveled to West Africa to study with Gideon Alorworye, master Ghanian drummer and now University of North Texas Professor of Music. Reich’s work was interrupted by illness, and upon his early return to America, he began to compose *Drumming*. Although he was inspired by the music he studied in Africa, *Drumming* is not necessarily based entirely on this music. Rather, he gained a sense of affirmation regarding what he was inspired to compose.³ Reich states,

I am often asked what influence my visit to Africa in the summer of 1970 had on *Drumming*. The answer is confirmation. It confirmed my intuition that acoustic instruments could be used to produce music that was genuinely richer in sound than that produced with electronic instruments, as well as confirming my natural inclination towards percussion. (I became a drummer at the age of 14).⁴

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³ Steve Reich, notes for *Drumming* (Milwaukee, WI: Boosey and Hawkes, 2011).
⁴ Ibid.
One of the compositional techniques Reich employs in the composition of *Drumming* is the “gradual but complete change of timbre while pitch and rhythm remain constant.” It is his assertion that it is possible to remain in the same tonality, using the same rhythm for an extended amount of time if there are timbral changes to supply variety.\(^5\)

**Overview**

*Drumming* is divided into four parts. Of interest for this paper is part three, which is written for 3 sets of orchestra bells, whistler and piccolo. Reich’s use of orchestra bells serves as a timbral change from the marimbas in part two. Toward the end of part two, the marimbas are scored in their upper register. As part three begins, the marimbas begin a diminuendo as the orchestra bells begin to crescendo in their lowest range. See example 1:

Example 1: mm 409–410 of Reich’s *Drumming*, showing timbral exchange between marimbas and orchestra bells.

This timbral change is paramount in Reich’s compositional technique for *Drumming*. The musical material stays the same but the alteration from wooden marimba bars to metal orchestra bell bars provides the change required for variety. Also important is the indication to use

\(^5\) Steve Reich, notes for *Drumming* (Milwaukee, WI: Boosey and Hawkes, 2011).
medium-hard rubber mallets for the transition from marimba to orchestra bells. The use of these mallets allows the attack and sustain of orchestra bells to be closer in amplitude. This allows the entrance of the orchestra bells, in the low part of their *tessitura*, to more-closely match the marimba’s attack and sustain, allowing for a smooth timbral transition.

The writing is idiomatic and well-suited for orchestra bells. In the beginning of part three, the left hand holds one mallet and the right hand two mallets. Upi 5\(^6\) is repeated in the right hand on G\#3 and C\#4 as the left hand alternates between B3 and A\#3. As the range of the pattern increases and gets higher in pitch, Reich creates another transformation of timbre by instructing the performer to switch to wood mallets. See example 2:

---

\(^6\) The intervals in this document will be discussed according to the conventions used in *Introduction to Post-Tonal Theory, 3\(^{rd}\)* Edition by Joseph N. Straus. See the following example for clarification:

\[
\begin{array}{c}
\text{ordered pitch interval:} & \text{opi +19} \\
\text{unordered pitch interval:} & \text{upi 19} \\
\text{ordered pitch-class interval:} & \text{opci:7} \\
\text{unordered pitch-class interval:} & \text{upci:5}
\end{array}
\]
The harder mallet helps to emphasize the attack of each sound yet still allows the sustain of the instrument to pervade. The texture created by three sets of orchestra bells performing the same, slightly offset pattern is incredibly rich. Part two is scored for voice and marimba, but because of the high range and rich texture of orchestra bells, Reich was concerned the vocal part would not be heard by an audience. He made the decision to change the instrumentation from voice to whistler and piccolo so that the voice part could be audible.

Reich’s use of orchestra bells in *Drumming*, a piece that received wide exposure and was labeled “minimalism’s first masterpiece”, showed the instrument in an innovative way. His writing for orchestra bells makes good use not only of the bright attacks, but also the long sustain and brilliant overtones that occur with the striking of each note.

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Example 2: m. 415 of Reich’s *Drumming*, showing mallet change in higher register.

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Morton Feldman’s *Why Patterns?*

**Background Information**

Morton Feldman composed *Why Patterns?* in 1978. The piece is the first of four works that were written for three of his colleagues at The University of Buffalo: percussionist Jan Williams, flutist Eberhard Blum and pianist Nils Vigeland. *Why Patterns?* is scored for orchestra bells, flute and piano.

The piece is inspired by Feldman’s fascination with antique Middle Eastern rugs. In many of the handmade rugs Feldman collected, each of the design patterns had subtle variations; they coexisted in the rug, running their course with separate rates of recurrence.8 *Why Patterns?* is a reflection of this idea. Feldman writes:

The work is notated separately for each instrument and does not coordinate until the last few minutes of the composition. This close, but never precisely synchronized notation allows for a more flexible pacing of three very distinct colors. Material given to each instrument is idiomatically not interchangeable with that for the other instruments. Some of the patterns repeat exactly — others with slight variations either in their shape or rhythmic placement. At times a series of different patterns are linked together on a chain and then juxtaposed by simple means.9

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Overview

Because the work is written in different time signatures for each instrument, it is impossible to refer to measures by number. For the purposes of this paper, specific measures will be referred to by their page and system number. Feldman's writing for orchestra bells is idiomatic; he showcases the instrument using patterns that make good use of its assets. The first pattern is a mixture of a widely spaced quadruple stops coupled with closely spaced double stops. See example 3:

![Example 3: Page 1, top staff of Feldman’s Why Patterns? showing first pattern of wide to narrow quadruple and double-stops.](image)

This colorful scoring separates the orchestra bells from the other instruments yet compliments the overall texture. The sustaining quality of the instrument blends nicely with the flute while the percussive attack blends nicely with the piano, but the scoring is distinct because of its utilization of the entire range of the instrument. As the pattern progresses there are larger sections in which Feldman explores only the wide quadruple-stops or the closely spaced double-stops, but he later alternates these larger sections with development of the opposite idea.

A new idiomatic musical gesture emerges on page 4, system 3. Against the long, low tones of the flute and the steady pulse of the piano, the orchestra bells sound a sixteenth-note double-stop followed by a quarter-note double-stop, as illustrated in example 4:
The closely spaced double-stops are easy to execute on orchestra bells and the introduction of the sixteenth-note puts the instrument in the foreground of the musical texture. As the piece progresses, more gestures are introduced until a chain of gestures creates a repetitive pattern of idiomatic motives. See example 5:

Example 5: Page 7, System 1 of Feldman’s *Why Patterns?*, showing chain of idiomatic motives.

Each of the gestures compliments the overall musical texture and represents the utilization of a technique that is natural and easily executed on orchestra bells.
The instruments are in synchrony at the end with a descending chromatic scale in the orchestra bells that is extended across 60 measures. This is illustrated in example 6:

Example 6: Page 14, top system of Feldman’s *Why Patterns?*, showing the first 12 measures of descending chromatic scale in glockenspiel part.

The single notes on orchestra bells sound like points of light and serve to unify the musical texture. The piano is in its low register, the flute in its upper register and the orchestra bells slowly descend from its upper register to its low register, ending the piece.

Feldman’s writing for orchestra bells is masterful. His idiomatic use of the instrument in this and subsequent pieces counteracts any doubt that orchestra bells are capable of expressive, colorful performance. Many of the techniques he employed in *Why Patterns?* will be utilized by later composers in their own writing for solo orchestra bells.
Franco Donatoni’s *Ave*

**Background Information**

Italian composer Franco Donatoni (1927–2000) composed *Ave* in 1987. This piece is one of many works that represents Donatoni’s research in the field of tone combination. Written for piccolo flute, celesta and orchestra bells, *Ave* explores the interplay between three high-treble instruments, first together, then in combinations of two, and then together. Donatoni utilized constructive devices of transformation to compose *Ave*, as well as many of his other works. Throughout his life, Donatoni asserted that music should neither be programmatic nor a method of self-expression; instead, music is absolute. However, it is difficult to listen to *Ave* without recognizing the broad color spectrum Donatoni created in the combination of the three timbres. His remarkable music “…makes one think of an ephemeral rainbow scintillating in an iridescent light just after the rain.”

**Overview**

*Ave* is divided in seven parts. Although each part showcases orchestra bells in a different way, it is Donatoni’s use of articulation and ornamentation throughout the work that stands out. From the very first sound, the importance of orchestra bells is established. See example 7:

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The piccolo in its low register lacks clarity of articulation and the celesta’s articulation is soft and subtle throughout its entire range. The addition of orchestra bells adds brilliance to the musical texture, brightening the sound.

Measures 50–51 (example 8) contain another distinct use of articulation:

Example 7, m. 1 of Donatoni’s Ave, showing articulation of glockenspiel to strengthen the overall color.

Example 8: mm 50-51, piccolo and glockenspiel of Donatoni’s Ave, showing timbral transformation through the use of orchestra bells.

In measure 50, the piccolo sustains A5, which is accented by staccato orchestra bells. As the piccolo continues to sustain the pitch, the sound of the orchestra bells is not present until the next
measure where they repeat the staccato A three more times. The result of this innovative writing is a transformation of timbre, from brilliant to warm to brilliant, simply with the addition, subtraction and addition of orchestra bells. An example of variety in the articulation of orchestra bells is found in measure 68. See example 9:

Example 9: m. 68 of Donatoni’s Ave, showing articulation in orchestra bells to highlight piccolo and celesta parts.

The clusters in the celesta are lightly accented by the tenuto orchestra bells, and the C# entrance of the piccolo (again, low in the instrument’s tessitura) is strongly punctuated by the accented staccato orchestra bells.

A similar change in articulation occurs in measure 80. The slur over the pitches indicates that the notes should be played closely together with no space; Donatoni’s rapid linear writing ensures that the notes will be performed in this way. In addition, there is an indication for the use of a dampening pedal. In the performance instructions, Donatoni writes, “Nel caso che vi sia lo smorzatore, il sego indica ‘non smorzare’.” (In case there is a damper, the sign indicates “do not dampen”.)

The most striking use of articulation and ornamentation is found in the orchestra bell solo beginning in measure 100. Refer to example 10:
The highly embellished melody creates an intricate, multi-faceted texture of staccato grace notes, mordents, tremolos and legato articulation that is unprecedented in music for orchestra bells. A well-studied performer can execute these ornaments and articulations with ease.

Donatoni’s use of orchestra bells in *Ave* is a display of the availability of sensitivity and control over the envelope of sound inherent in the instrument. His writing exhibits the ability of the instrument to strengthen articulation and musical lines in other instruments, as well as create a vast array of sounds through the notation of different ornaments, attacks, sustain and releases.

The music of Donatoni, Reich and Feldman (along with many others) utilized orchestra bells in chamber music. The following chapters will explore six solo, unaccompanied works for orchestra bells.

Example 10: mm 100–102 of Donatoni’s *Ave*, showing prolific use of ornamentation and articulation in glockenspiel part.
CHAPTER 4
A MASTERPIECE OF STRUCTURE: ROBERT MORRIS’S
TWELVE BELL CANONS FOR ORCHESTRA BELLS

Introduction

The utilization of compositional structure (the way in which a musical composition is put together) is essential in the creation of Western art music. Because it is in our nature to search for patterns in the events we experience, the application of structural elements in the organization of musical works can only serve to help the music become more accessible and understandable to an audience. This rings true in the case of Robert Morris’s Twelve Bell Canons for Orchestra Bells. This work will be examined in regard to its rigorous application of structure as well as the composer’s thoughts as they apply to solo orchestra bells.

Background Information

Robert Morris (b. 1943) is a well-respected theorist and composer who teaches composition with an additional affiliation within the theory and musicology departments at the Eastman School of Music. Morris has composed over 160 works including computer and improvisational music. Many of his earlier works are highly influenced by non-Western music and utilize structural elements from Arabic, Indian, Indonesian, Japanese and early Western musics. Composed in 2005, Twelve Bell Canons for Orchestra Bells is a collection of small-scale works composed by Robert Morris for solo orchestra bells, each named for a month of the year. The performer is instructed to perform only the piece titled for the month in which the performance is to take place. If the performance is in the month of March, the performer should

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play the third canon titled “March”; this will constitute a full performance of the work. “The piece is to be played quietly, preferably outdoors, at a memorial event or some other solemn occasion, or during meditation sessions.”

The use of orchestra bells for this piece seems to be the most sensible choice. In a personal interview the composer mentioned:

I was emboldened by a young man named Trevor Saint. He wrote me and told me there was a new version of orchestra bells that came with a brighter and long-line sound, so that was one of the reason I did this piece. But I also wanted to write something that would be used in a ritualistic way. I felt that a brass instrument is good for that but I wanted something that was softer and perhaps meditative in quality. And since very often in Buddhist services gongs are used, I wanted something that would be like that but I wanted it to be played on a Western instrument.

Twelve Bell Canons exhibits two compositional elements Morris is exploring: music that is written for outdoor performance in a natural setting and a technique for writing canons. Morris states:

I had developed a theory of canons in which I can specify exactly what harmonies I want to have at what intervals. I am constructing a certain kind of matrix. I don’t consider it mathematical but many people would. It’s essentially an application of some principles of serialism to making canons. I’ve used this technique in a lot of pieces but the bell canons were sort of the announcement of this possibility and so I thought of it like a work of (if I may be so bold) Bach, in which he tries all the different ways in which you can do something. So in this case there are twelve ways to make this one canon out of “October”.

The entire collection, approximately thirty minutes of music, employs highly organized schemes; among them are (1) strict-canon format in which each of the voices imitates the lead voice by precise intervallic quality, (2) distinctive use of silence that expands and contracts by simple addition or subtraction, (3) isorhythmic repetition in which each of the movements uses precisely the same rhythm, and (4) a tonal design that systematically utilizes all twelve pitches of

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15 Robert Morris, telephone interview by the author, October 11, 2015.
16 Ibid.
the chromatic scale. Each of these organizational schemes will be examined; they serve to
demonstrate highly structured music for solo orchestra bells.

Musical Language

Although “January” is the first of the movements, “October” is the month in which the
composer was born. For that reason, it was the first canon written.\textsuperscript{17} It contains the organization
utilized in the remaining eleven canons; it is, therefore, a practical place to begin an examination
that demonstrates prominent features of the entire work.

All twelve canons are written in $8/4$ and marked at sixty beats per minute. Each canon
can be divided into two sections: (1) motion toward the musical apex in measure 9 and (2)
motion toward silence in measure 18, the final measure. “October” begins with a whole-note and
eighth-note rest before Bb4 sounds in the top voice. The duration of the rest grows by one eighth
note following each successive pitch. See example 11:

\begin{center}
\begin{tabular}{|c|c|c|c|c|c|}
\hline
9 & 10 & 11 & 12 & 13 & 14 \\
\hline
\end{tabular}
\end{center}

Example 11: Top voice, mm 1–6 of “October” from Morris’s \textit{Twelve Bell Canons}
showing the gradual extension of the duration of rests.

This pattern (adding one eighth-note rest to the overall value of the silence that precedes events)
continues until measure 9.

In measure 10 the pattern resumes. See example 12:

\begin{center}
\begin{tabular}{c}
\end{center}

\textsuperscript{17} Robert Morris, interview, October 11, 2015.
A single eighth-note rest occurs before Eb5 is struck, and the value of each rest is increased by one eighth-note rest between each sounding pitch.

The same use of silence is found in all of the voices of the canon, but at different subdivisions. The second voice is subdivided by triplet eighth-notes and the third by quintuplet sixteenth-notes. This highly organized rhythmic structure allows the voices to “…get nearer and nearer to each other until they hit the chord and then split again.”

Morris employed all twelve pitches of the chromatic scale for the primary voice. October begins with pitch class 10, which is followed by pitch class 11. After the remaining pitches are sounded, he repeats the first two pitch classes (10 and 11) to end the canon.

The canonic imitation in “October” is in unison. All pitches from the chromatic scale are utilized. The first voice enters the texture with Bb4 after a notated silence, followed by another, longer silence before the second voice enters with the same Bb4. Refer to figure 6:

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Example 12: Top voice, mm 10–15 of “October” from Morris’s *Twelve Bell Canons* showing the gradual extension of the duration of rests.

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18 Robert Morris, interview.
19 For the purposes of this discussion, pitch-classes will be referred to as integers according to the criteria and conventions of Johann N. Straus’ *Introduction to Post-Tonal Theory* Third Edition.
If not for the rhythmic differences between the parts, each voice would be in exact melodic and rhythmic canon. However, through the methodical use of rhythmic, structural planning, the imitative voices gradually get closer to each other until the climax, where they are struck together. The voices grow toward this apex in measure 9 where all three voices line up for the first time, sounding a whole-tone trichord. See example 14:

Example 14: Reduction, m. 9 of “October” from Morris’s *Twelve Bell Canons* showing whole-tone trichord.
The composer states, “I had to place (the second voice) at levels that didn’t coincide with the other ones. I didn’t want to have any notes in combination until the trichord.”\textsuperscript{20} Not only does this structural technique allow the bells to decay naturally, but it also creates a sense of expansion and contraction in each of the canons. The audience can perceive the piece moving toward and pulling away from the trichord.

Each of the movements follows the same structure as “October,” but the imitation expands by one interval. For instance, where “October” is in canon at upi 0, “November” is in canon at upi 1, and “December” at upi 2. This pattern continues through “September” which is in canon at upi 11. Notice the circle-of-fifths progression in figure 7:

\begin{table}[h!]
\centering
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline
\hline
Interval & 3 & 4 & 5 & 6 & 5 & 8 & 3 & 2 & 11 & 0 & 11 & 2 \\
\hline
Starting Pitch & 1 & 6 & 11 & 4 & 9 & 2 & 7 & 0 & 5 & 10 & 3 & 8 \\
\hline
\end{tabular}
\caption{Starting pitch and interval of imitation in each canon. Notice the circle-of-fifths pattern of the starting pitches, except for the necessary enharmonic respelling of pitch-class 6 in February.}
\end{table}

Each movement begins at upi 5 from the previous, and because of this tonal scheme all twelve pitches of the chromatic scale are utilized. The same trichord (0–4–8) is sounded in all twelve canons on measure nine, though it is enharmonically respelled or voiced differently. See Figure 8:

\textsuperscript{20} Robert Morris, interview.
This level of organization is remarkable when one considers that each of the twelve canons begins on a different starting pitch and has a different intervallic scheme in its imitation.

Performance Considerations

One of the difficult aspects of *Twelve Bell Canons* is its simultaneous reliance on multiple subdivisions. For instance, measure 7 requires that the performer is aware of quintuplets, triplets, and duple subdivisions, all at the same time. See example 15:

Example 15: m. 7 of “October” from Morris’s *Twelve Bell Canons* showing multiple subdivisions of the beat.
While careful work must be done in preparation for performance of this work so that the soloist can properly execute the rhythms, in performance, the general relationships between the notes are more important. If the performer is mindful of the decreasing proximity of each of the pitches before measure 9 as well as their increasing proximity after, the piece will be properly executed.\footnote{Robert Morris, telephone interview by the author, October 11, 2015.}

Performers of contrapuntal music typically work to find creative ways to communicate the structural elements of the music they are presenting. This can be done on orchestra bells in a number of different ways: performers make changes using different stroke techniques, different mallet choices, and through the manipulation of dynamics. However, none of these changes are necessary for a performance of \textit{Twelve Bell Canons}. The composer states:

There’s something to be said for something that doesn’t change much because it produces a focus. When you have a lot of different changes, this produces a different kind of effect, which is one of diversity. When I wrote the piece, I was thinking of the traditional way of playing bells with traditional hard mallets, producing a nice, ringing tone. The canon is there. It produces a structure that has integrity and is interesting, but at the same time the listener doesn’t have to be totally aware of the structure any more than you are aware of the rules of English grammar as we are talking.\footnote{Ibid}

Morris’s skillful use of canon in \textit{Twelve Bell Canons} illustrates the highest level of compositional structure. The piece sounds like ceremonial, meditative music. The space between events that allows the orchestra bells to ring is contemplative, and the calculated motion in the progression of the piece creates solemnity. Because of its ability to perform the softer, meditative sounds for which Morris was searching in the creation of \textit{Twelve Bell Canons}, orchestra bells are the perfect choice for this music.
CHAPTER 5

CONVERGING MUSICAL LINES AND IMITATION: MARTA PTASZYNSKA’S
KATARYNKA

Introduction

The musical composition *Katarynka* by Marta Ptaszynska demonstrates two important qualities that establish further the potential of solo orchestra bells: (1) the instrument’s capacity to emulate other sounds (2) its ability to create simultaneous, multiple musical lines. In *Katarynka*, Ptaszynska alludes to the Polish instrument of the same name (see figure 4) and explores creative ways in which orchestra bells can imitate it. She also masterfully writes two musical lines that, through the use of tempo, timbre, and additive texture, converge and diverge into a brilliant musical sonority.

![Image of the Katarynka musical instrument](image)

Figure 4: Image of the Katarynka musical instrument

Background Information

Composer and percussionist Marta Ptaszynska is Professor of Music Composition at The University of Chicago. Born in Warsaw, Poland, she worked privately with Witold Lutoslawski,
who later became her mentor. She studied with Nadia Boulanger and attended Oliver Messiaen’s analysis classes at the Paris Conservatory and at the Center Dourdan de L’ORTF. Her music is recognized for its melding of divergent sources. Author Dorota Szwarcman describes Ptaszynska’s music:

The combination of forms and the timbre of classical and contemporary, Oriental and Occidental elements produces an unusual but a very homogenous musical amalgam. It is easy to recognize Marta Ptaszynska’s compositions with a broad and highly refined instrumentation and a rich and colorful interplay of sound texture. We are struck not only by the elements of color, but also, by forms, which are reminiscent of something that remain with the bounds of abstraction, as in pictures of Yves Tanguy and Paul Klee.

Ptaszynska’s musical composition Katarynka for solo orchestra bells (2005) is no exception; it is a melding of two very different ideas. When Sylvia Smith commissioned Ptaszynska to write a solo piece for orchestra bells for the Summit collection, Ptaszynska decided to use the instrument to write about another instrument, the Polish Katarynka. This instrument (also known as Katerinka, Kolovrathka [Czech], Drehbeier or Drehorgel [German], or organ a manovello [Italian]) is a popular folk instrument of the 18th and 19th centuries. Franz Schubert wrote a piece of music titled “Der Leiermann” (The Organ Grinder) that similarly imitates this instrument. “It is a box or a case with a handle which contains a whirling device and produces sounds and tunes mechanically.” Although the sounds of the two instruments are not the same, orchestra bells can allude to the Katarynka through the manipulation of timbre. In this composition, Ptaszynska employs glissandi, different types of strokes (legato, staccato, dead strokes, etc.), striking the bar with the head and the butt of the mallet, and precise dynamic

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26 Marta Ptaszyńska, telephone interview by the author, October 14, 2015.
markings to create a wider tonal palette. Ptaszynska has used similar techniques in other compositions, including *Viva la Casa* (2014).

**Musical Language**

In composing *Katarynka*, Ptaszynska employed a free, open form. She states, “I had this kind of continuum in mind, actually. It’s continuously moving but it’s evolving. And by adding more notes and adding more notes exactly like in this kind of music that you hear on *katarynka*, and you have these patterns which are recurring but the form is through-composed.”

Although the piece is through-composed, it seems to be in distinct sections (measures 1–11, 12–22, 23–29, 31–44, 45–61 and 62–68). Each of the six parts has a distinctive tempo, set or sets of pitches and style, as well as a separation through the use of an extended, notated rest or a fermata. Inherent in each section is a meticulously planned change in tempo, mostly from slow to fast to slow; the composer refers to these gestures as “whirling.” She states, “It’s like a music box that when you turn more, the melody gets faster. When you turn less, the melody slows down. So it’s actually a continuous wave of the *accelerando* and *ritardando* because, depending on how you will turn this handle, you will go faster or when you turn the handle slowly, the music will move slowly.”

To demonstrate the slow–fast–slow pattern inherent in *Katarynka*, let us look at section two which begins in measure 12 with the marking “*Moderato, leggiero e gioioso, sempre motto meccanico.* Measures 16–17 are marked *sempre poco à poco accelerando*, measure 19 is marked *allegretto*, measures 20–22 are consecutively marked *molto ritardando, moderato*, and *allargando*. These six markings within ten measures create the slow–fast–slow pattern that is

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38 Marta Ptaszyńska, telephone interview by the author, October 14, 2015.
28 Ibid.
29 Ibid.
typical of the Polish instrument for which this piece is named (see figure 9). Ptaszyńska has used this “whirling” idea in several other pieces, including *Mobile dal dwóch perkusistów* (1975).

<table>
<thead>
<tr>
<th>Measure</th>
<th>12</th>
<th>16–17</th>
<th>19</th>
<th>20</th>
<th>21</th>
<th>22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tempo</td>
<td>Moderato</td>
<td>Accelerando</td>
<td>Allegretto</td>
<td>Ritardando</td>
<td>Moderato</td>
<td>Allargando</td>
</tr>
</tbody>
</table>

Figure 9: The slow-fast-slow “whirling” idea in measures 12-22 of Ptaszyńska’s *Katarynka*.

The first section (measures 1–11) consists of two main parts. Part one (measures 1–4) contains an overarching, ascending musical line from Ab4 to Bb5, with interjections of grace notes and anacruses. See example 16:

Example 16: mm 1–4 of Ptaszyńska’s *Katarynka*, showing:
1. The melodic line from Ab4-Bb5.
2. Detailed use of dynamics to create contrast.
The dynamic indications of *forte* (the primary melodic line) *piano* and *pianissimo* (the grace notes) help to create a musical foreground and background. This line begins in measure 1 on Ab4 and, after three grace notes and an anacrusis, the Ab4 moves up to Eb5. After more grace notes and an accelerated figure (notated by feathered beaming in measure 2), the Eb5 moves up to E5. The pattern is repeated again as Bb5 is sounded in measure 4. This ascending line creates a strong sense of phrasing and melodic direction that immediately dissipates after the last figure in measure 4. It also serves to allude to the katarynka, in which “…one note is sounded and the player turns the handle to get to the next, and so on and so on.”

Of further interest in this section is the double fourth tetramirror in measure 2. Pitch-class set [2378] has the prime form (0156):

Example 17: m. 2 of Ptaszyńska’s *Katarynka*. The top staff shows the notes as they appear in the score. The bottom staff shows a reduction of the top staff in both normal and prime forms.

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30 Ibid.
31 A pitch-class set for the purposes of this discussion is a segmented element of a piece at hand put into normal form according to the criteria and conventions of Joseph N. Straus’ *Introduction to Post-Tonal Theory* Third Edition.
The prime form (0156) permeates *Katarynka*; it is from this structural idea that Ptaszyńska builds the piece. For example, the upi 5 (D5–G5) that occurs in measures 5, 7 and 8 (see example 18) is incomplete until C#4 and F#4 are sounded.

This separated presentation of pitch-class set [1627] is a preparation for the whirling figures; after each appearance of D5–G5, the whirling figures begin, each time slightly longer than the last time. This is meant to further imitate the katarynka. “When you stop turning the handle, it starts to produce the same sound until you start around again. You have to move the handle very smoothly and after a couple of times around the katarynka starts to produce the round sound. Otherwise, it’s just got a crackling sound.”32

Another occurrence of prime form (0156) is found in measure 12. See example 19:

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32 Ibid.
Example 19: m. 12 of Ptaszyńska’s *Katarynka*, showing the “whirling” motive and its reduction in normal and prime forms.

When the pattern begins both hands are performing a melodic upi 5; the right hand is playing Db5–Gb4 while the left plays F4–C5. At this moderate tempo, two musical lines can be perceived. However, as the accelerando occurs the two lines begin to blur into one. As the pattern progresses, more notes are added to the texture and the top voice creates another overarching, ascending melodic line similar to the line in the first section. See example 20:
Eventually, the faster tempo, the added pitches, and the ascending melodic line work together to create prime form (01356). This technique is discussed with the composer in an interview for this document:

Douglass: When the first whirling figure begins on the second page at the end of the second system where it says \textit{molto leggero, gioioso, sempre molto meccanico}, I hear the right hand as a Gb major sonority and I hear the left hand as F major. I hear it as bitonality.

Ptaszynska: Right, exactly.

Douglass: And this is what you intended?

Ptaszynska: Yes, exactly.

Douglass: And then it converges and I begin to hear, instead of two separate voices, I begin to hear one voice when you add the Db in the left hand (measure 17).
Ptaszynska: Right, exactly. And adding G in the left hand and Db in the right. So it’s actually combining this harmony that is becoming a little odd, you know, because of Gb and F and becoming more united now.

Douglass: So we’re on the same page. That’s exactly what I was thinking: there are two separate harmonies that eventually come together.

Ptaszynska: Correct. Absolutely right, yes. It’s creating a fantastic effect that after awhile you can hear only one chord. One harmonious chord.33

The second section reaches a climax in measure 21 on Bb5. See example 21:

Example 21: mm 20–22 of Ptaszyńska’s *Katarynka*, showing:
1. The climax of part 2 in measure 21 on Bb5.
2. The preparation for the climax from the notated rest.

This apex is marked by a preceding rest (the only notated rest in the second section) as well as a *mezzo forte* marking (the loudest dynamic in this section). The second section comes to a close as the pattern slows and the instrument crescendos (measure 22).

The third section (measures 23–29) also consists of two main parts. The first part imitates the clanking sound of a katarynka before the performer begins a new whirling section.34 The sextuplet figure (measure 23) is meant to be performed with the butt of the mallets, and the triplet in the left hand is played in the ordinary way. See example 22:

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33 Ibid.
34 Ibid.
This description accounts for the notated slash and arrow in the top staff (play with the butt) and the slash (play with the head) in the bottom staff. A mechanical effect is created by this timbral change; “So it’s actually getting to a very interesting, mechanical sonority because you play C# with the lower mallets and then upper lines are played with the staccato sextuplets and this is the part you play with the other side of the mallets. So this is a very tiny, percussive sound; not too much pitch.” The whirling motive begins once again in measure 27, this time on pitch classes 8–3 in the right hand and 9–4 in the left. The same elements of additive texture and an ascending melodic line are utilized. See example 23:

Example 22: mm 23–26 of Ptaszyńska’s Katarynka, showing:

1. The “clanking” motive: an allusion to the katarynka handle beginning to whirl.
2. Timbral manipulation through the changing of mallet techniques.

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35 Ibid.
36 Ibid.
As the music progresses the separate lines once again become one, and the listener is meant to perceive a single harmony on a single musical line.

The fourth section (measures 31–44) contains the most musical variety; there are distinct but related ideas. The mechanical effect continues as the sextuplet figure in the right hand is performed with the butt of the mallet, and the figures in the left hand are performed with the mallet head. The next idea (measure 35) is a point of articulation between the hands that has not previously appeared. See example 24:

Example 23: mm 27–29 of Ptaszyńska’s Katarynka, showing a new “whirling” motive using prime form (0156) that develops into prime form (013568T).

Example 24: mm 34–37 of Ptaszyńska’s Katarynka, showing multiple musical ideas unified by pitch-class set [13579E] whole-tone odd and glissandi at upi 6.
Both the right and left hands are in species-one counterpoint (note-against-note), using whole-tone odd. This section sounds as if the katarynka player is purposefully creating an ambiguous texture to prepare the listener for the coming whirling motive. Measure 37 (see example 9, measure 37) utilizes glissandi to further this illusion. The performer is instructed to strike a pitch with the head of the mallet and glissare upward with the butt of the other mallet, first on A4, then on Eb4. The figure repeats, this time on Db5 and G3 (note the use of upi 6). The fourth idea in this section (measure 38–39) is another occurrence of species-one counterpoint that further progresses the illusion of ambiguity. See example 25:

Example 25: mm 38–41 of Ptaszyńska’s Katarynka, showing:
1. Idea 4: whole-tone odd in contrary motion.
2. “Whirling” motive on pitch-class set [TE34] which has the prime form (0156)

Both hands perform an ostinato on a whole-tone scale; the right hand begins on Db5 and the left on G4 (note, once again, the use of upi 6). The figure accelerates and crescendos as each hand performs the entire whole-tone scale in contrary motion. The fifth and final idea is presented as the whirling begins again (measure 40) in the same manner as in previous sections. Pitch-class set [TE34], which has the prime form (0156), returns. This time it is E4–B4 in the right hand and
Eb4–Bb4 in the left. As pitches are added to the texture and the separate figures accelerate, one united texture is created.

The fifth section (measures 45–61) is the longest portion of the entire work. Measure 45 begins with descending tenuto quarter-notes and is marked *Vivo, distinto*; this allows the previously unified texture to be separated into two distinct voices. See example 26:

In the second part of measure 45, an accelerated figure (notated with feathered beaming) appears to initiate another whirling section. However, this expectation is not fulfilled. Although the relationship between the right and left hands is consistent with previous occurrences of the whirling motive (C6–G5 in the right hand and C#4–F#4 in the left), the intervals are inverted. The pattern is immediately interrupted by another *ostinato* (Db5–Bb4 in the right hand and B4–G4 in the left).

The whirling motive begins again in measure 47. See example 27:

Example 26: mm 45–46 of Ptaszyńska’s *Katarynka*, showing:
1. Separation into two voices.
2. Return of the “whirling” motive.
In this final occurrence, it is presented with the same pitch classes in which it originally appeared (see example 4, measure 12 with Db5–Gb4 in the right hand and C5–F4 in the left). However, in the original presentation the additive texture occurs in the right hand. In this final occurrence the additive texture occurs in the left hand and pitch-class set [0156], which has the prime form (1056), returns. The whirling motive continues, using the same *accelerando* technique employed earlier in the piece, but before the listener can perceive the unification of separate voices an interruption occurs. See example 28:

Example 28: mm 53–55 of Ptaszyńska’s *Katarynka* showing continued, segmented use of pitch-class set [1357] whole-tone odd and [248T] whole-tone even.
The whirling motive begins again, this time with A⁴–E⁵ in the right hand and Eb⁴–Bb⁴ in the left. Because of the Vivo, leggero tempo marking, the listener can immediately perceive one voice.

Prime form (0156) returns as the pitches of the whirling motive change to A⁴–E⁵ in the right hand and G⁴#–D⁵# in the left, accelerating with one final push to the conclusion of the work (see example 29).

Example 29: mm 56–59 Ptaszyńska’s Katarynka showing pitch-class set [3489] which has the prime form (0156).

The final section (measures 62–68) is a recapitulation of five gestures from the previous musical material, separated by notated silences and unified by an overarching rallentando. The first gesture begins in measure 62 with dead strokes. See example 30:

Example 30: mm 62–63 of Ptaszyńska’s Katarynka, showing:
1. Timbral manipulation through dead strokes.
2. Use of prime form (013568T) major.
3. Upi 1 motion to merge two voices into one
The performer is instructed (m. 62) to leave the head of the mallet on the bar after striking it, creating a heavy articulation with no sustain, intended to allude to the mechanical clunking that occurs when the katarynka player begins to turn the handle of the instrument. This is followed by the second gesture, in which the two voices (m. 62) merge into one, creating a major sonority.

The third gesture (measures 64–66) is a restatement of the whirling motive separated by notated rests. See example 31:

![Example 31: mm 64–66 of Ptaszyńska’s Katarynka, showing the “whirling” motive interrupted by rests and coming to a close through the use of dynamics.](image)

Each occurrence of the motive is marked with a quieter dynamic marking, from mezzo-piano to piano to piu piano in its final appearance. The fourth gesture (measure 67) is a reiteration of measure 1. See example 32:

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37 Ibid.
However, in this reiteration the music begins with a double-stop at upi 11, followed by grace notes and a slightly accelerated figure on Ab3. The fifth and final gesture begins as Ab3 descends to G3 on the downbeat of the final measure. Although this sounds like an ending, the work is not over until Ptaszyńska resolves the second voice. C#4 to F#4, performed in octaves, which gives a sense of closure. The gesture is brilliantly marked pianissimo while the G3 approached by Ab3 is marked forte. It is, therefore, reasonable to conclude that both voices are resolved.

Performance Considerations

One of the primary elements of Katarynka is the changing rate of speed at which the piece develops. This is addressed in the program notes: “The piece Katarynka should resemble the tunes played on katarynka. There is a continuous fluctuation of tempi (fast, slower, slow, faster, etc.) in order to produce similarities with the katarynka’s playing techniques relying on
the motion of the handle.” This is further addressed by Ptaszynska: “The tempos should not be achieved by a dramatically contrasting change, but the very smooth *accelerando* and *ritardando*. It’s *piu mosso* to *meno mosso* back to *piu mosso* so it always sounds very unstable.”³⁸

The performer must be meticulous about smooth transitions between *tempi*, always mindful of imitating the instrument for which the piece is named.

Two unexplained figures appear in the score; both occur for the first time in measure 23 (see example 6). The diagonal line with the arrow in the upper staff indicates that the performer should play with the butt of the mallet. The diagonal line without the arrow indicates playing with the head of the mallet in the ordinary way.

Because Ptaszynska took the time to meticulously write on two staves music that could have been notated on one, a performer may be tempted to try to achieve two different sounds through the use of different mallets or playing techniques. This is not desirable to the composer. This was addressed in an interview with her:

Ptaszynska: I wrote on two staves because I think it’s much clearer. For me, it’s much clearer because you can actually see what the left hand is doing and what the right hand is doing.

Douglass: It is definitely much easier to look at and read on two different lines. But do you want it to sound, as well, as if it’s written on two different lines?

Ptaszynska: Oh, the sound? No. I think that the sound will come naturally out of the line as it is written.

Douglass: So no use of two different mallets?

Ptaszynska: No. You should keep the same mallets for both hands.

In some editions, measure 8 contains incorrect pitches in the left hand. This has been corrected in the most recent edition. The correct notes for measure 8 are in example 33:

³⁸ Ibid.
Marta Ptaszyńska’s Katarynka is an imitation of the Polish musical instrument katarynka. She uses prime form (0156) throughout the piece, as well as an accelerando–ritardando pattern, colorful scales and rhythmic motion that is continuously evolving to create a brilliant musical texture. Ptaszyńska’s use of orchestra bells in Katarynka demonstrates qualities unique to the instrument; the brilliance of each attack coupled with its sustaining quality serves to generate a “whirling” effect that is reminiscent of the traditional katarynka. Ptaszyńska’s Katarynka is an expressive, colorful orchestra bell solo.

Example 33: m. 8 of Ptaszyńska’s Katarynka, showing correct pitches in the most recent edition.
CHAPTER 6

MULTIPLE, DISTINCT MUSICAL LINES: STUART SAUNDERS SMITH’S

OVER

While much of the music written for orchestra bells is texturally monophonic or homophonic, some composers choose to utilize the ability of the instrument to perform separate, independent polyphonic lines. This is typically indicated by the composer through the use of two (or more) staves. The performer has many options to keep the lines separate including the use of different stroke techniques (staccato, legato, etc.), different mallets or other striking implements, and careful use of dynamics. The musical composition Over by Stuart Saunders Smith will be examined in regard to its highly contrapuntal writing. The composer’s thoughts on writing for solo orchestra bells will also be discussed.

Background Information

Stuart Saunders Smith (b. 1948) is an American percussionist and composer who studied harmony, counterpoint and arranging at the Berklee School of Music. He completed his Doctor of Musical Arts degree at The University of Illinois at Urbana-Champaigne in 1977. Dr. Smith has composed over 100 works for percussion. A great deal of the solo literature for orchestra bells was written by composers who, had they not been commissioned, might never have considered writing for the instrument. Hence much of the resulting music is the composer’s first attempt at writing for solo orchestra bells. However, Stuart Saunders Smith’s Over is one of at least fifteen pieces he has written for the instrument. In fact, Smith credits himself with the creation of the first published solo (Thaw, 1993) for unaccompanied orchestra bells. Smith states:

There is no other composer alive today who has written more for orchestra bells than me. In fact, I wrote the first orchestra bell solo of any significance, it seems to me, with the piece *Thaw*. If you’ll look in my catalog you’ll see when it was composed but I don’t know of any other piece that predates *Thaw* as an unaccompanied solo for the instrument.40

Smith was writing for solo orchestra bells in the 1990s, a time when a majority of the solo keyboard percussion literature created was written for solo marimba. When asked why he chose to produce so much music for the instrument, Smith responded:

I find orchestra bells extraordinarily beautiful, an instrument that can carry a concert all night, just like vibraphone, xylophone or marimba. I’ve long-dreamed of a situation where someone could go, just with their orchestra bells, set it up onstage and play a concert. I don’t find any limitations with orchestra bells whatsoever. If you look at my entire output, which is about 100 pieces for percussion, you’ll notice that there is an emphasis on keyboard percussion that does not diminish the physicality of the performer and does not highlight it either. What I mean by that is, the orchestra bells, vibraphone and xylophone, all of the notes are easily within reach. The marimba is an awkward instrument. It’s too big and it tends to create a visual dance that a lot of times doesn’t go with the music. You’ll have some kind of lyrical line and the person is jumping all over the place. But if you put that line on xylophone, orchestra bells or vibraphone, it would be visually appropriate.41

Other examples of Smith’s works for solo orchestra bells are *Evensong* (1999), *Ground* (2004) and *Glock Solo for Solo Glockenspiel* (2006).

*Over* is based on “Over the Rainbow” (1939) by Harold Arlen and E. Y. Harburg.42

Smith has a “real love” for the Great American Songbook (the canon of influential jazz standards and American pop songs) and periodically uses them in his music.43 In this instance, he used the melody of “Over the Rainbow” from *The Wizard of Oz* (1939) as a *cantus firmus* on which to create a contrapuntal, melodic improvisation44.

40 Stuart Saunders Smith, telephone interview by the author, August, 13, 2015.
41 Ibid.
43 Ibid.

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One of the most prominent features of *Over* is the use of tuplets, irregular divisions of beats or parts of beats. By the third gesture of the piece, the performer is instructed to divide a half note into five eighth notes in the right hand, and into seven eighth notes in the left. In all, there are almost 80 tuplets in *Over*; this is significant, especially when one considers that the piece is less than four minutes in duration.

![Example 34: mm 1–2 of Smith’s *Over*, showing the use of tuplets.](image)

Example 34: mm 1–2 of Smith’s *Over*, showing the use of tuplets.

The tuplets help to create independence between the two musical lines in *Over*. Tuplets and other highly complex rhythmic patterns are a common feature in Smith’s music. This was addressed in an interview with musicologist and composer Theresa Sauer:

Sauer: All your music is rhythmically intricate. Even your earliest pieces avoid duple rhythms, which have traditionally been the cornerstone of Western music. Why are they so rarely found in your music?

Smith: Music of rhythmic intricacy engages the listener each moment with uneven durations that cause a kind of stillness – a stillness that is deep below the surface of consciousness. Duples lead to trance with incessant movement. The stillness of music of rhythmic intricacy reflects the polyrhythmic nature of our mind-body experience. It leads inward to ourselves. The purpose of trance music is for us to leave ourselves in an emotional catharsis instead of centering us where we are.45

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44 Stuart Saunders Smith, telephone interview by the author, August, 13, 2015.
Musical Language

Although *Over* is through-composed and notated with very few bar lines, the piece can be divided into five parts; each of the parts ends at cadential points of articulation. Because Smith likes the idea of playing *Over* in a rhythmically free, plainchant style, the use of bar lines is limited. However, there are enough bar lines to help designate sections of the work. They are as follows: measures 1–2, 3, 4–5, 6, and 7–8. The specificity with which he notates musical gestures on each staff, coupled with the complete absence of meter (there is no time signature and the infrequent bar lines only help to divide phrases) serve to create two open, independent chant-like textures that occur simultaneously.\(^\text{46}\)

Example 35: Chorus from “Over the Rainbow” and mm 1–2 of Smith’s *Over* showing melodic fragments (lyrics added) from the original source.

The first part (measures 1–2) directly alludes to the melody from *Over the Rainbow*. The initial two pitches in the top staff create upi 12, the interval that is immediately recognizable as

\(^{46}\) Stuart Saunders Smith, telephone interview by the author, August, 13, 2015.
belonging to the original source (“somewhere” from the lyrics), and the successive three pitches in the bottom staff seem to continue the line through the use of octave displacement. Before the entire melody sounds, the top line interrupts to repeat the upi 12 motive; it then sounds upi 9, echoing the next line of the original source (“way up” from the lyrics). To solidify the allusion, upi 9 is repeated (again, as an interruption of the source melody), this time doubled at upi 12. Smith uses these foundational intervals on which to create an improvised counterpoint between the two voices. There is no traditional method of counterpoint used; Smith simply went where his ear led him. As the first phrase approaches its end (measure 2) the rhythmic values become smaller, creating an acceleration toward the cadence point at the end of the measure. Because of the repetitive, wandering nature in the bottom staff at the end of measure 2 (between C4 and C#4), it is reasonable to compare this music to the B section of “Over the Rainbow.”

Example 36: “Over the Rainbow” B section “happy little bluebirds” motive at upi 3 and Smith’s *Over*, m. 2, bottom stave, showing imitation of the motive at upi 1.

47 Stuart Saunders Smith, telephone interview by the author, August, 13, 2015.
Although the original source is a sequence of upi 3 on the “happy little bluebirds” motive, the repetition of upi 1 in Over creates a close allusion to the song. The first phrase ends on a dotted half note, the longest sonority heard thus far in the piece.

The second part (measure 3) continues to develop in a freely written, improvisatory contrapuntal style. Special care has been taken to be sure the voices remain independent of each other; the use of tuplet rhythms and extreme range differences between the voices allow the listener to perceive polyphony.

Example 37: m. 3 of Smith’s Over showing:
1. Prominent use of tuplet rhythms for contrapuntal purposes.
2. Octave displacement of (way up high) motive.

Melodic fragments from Over the Rainbow continue to appear but are disguised through voice-exchange and octave displacement. As in the previous phrase, the rhythm accelerates as the cadence approaches, and a resting point is achieved in the end of measure 3 on a dotted quarter note.

The third part (measures 4–5) begins with the upi 12 “somewhere” motive in the top staff and the upi 3 “bluebird” motive in the bottom, both performed simultaneously.
Measure 4 continues to solidify both the source material and Smith’s polyphonic writing. The motivic quotations from *Over the Rainbow* are short-lived: a bar line interrupts the motives, creating the shortest measure in the piece (17/16). Measure 5 continues with an extended section of improvisatory counterpoint that includes melodic fragments from the source material. As in the previous phrases, the rhythm accelerates as the cadence approaches at the end of measure 5.

Example 38: m. 4 of Smith’s *Over*, showing simultaneous motives. The text from the original source has been added.
Smith used three quarter-note rests to separate this phrase from the next. These rests serve to create a deliberate departure from the source material. They are noteworthy for two reasons: (1) nothing similar occurs previously and (2) the use of notated silences is not typical in his music for orchestra bells. Smith states:

One of the things you have to keep in mind with the sound (of orchestra bells) is that it's so high up that you have to take into consideration your distance to the audience. To you it's going to sound like a ringing instrument. To them, it sounds like points of light and composers need to take that into consideration so that they don't write durations that are too long. They need to have shorter durations so the instrument can speak properly.⁴⁸

⁴⁸ Stuart Saunders Smith, telephone interview by the author, August, 13, 2015.
The fourth part (measure 6) is a marked departure from the music that precedes it. The rhythms are mostly comprised of longer durations, and the musical lines become more congruent, almost to the point of creating a composite voice. When the two voices come together they often result in a point of relaxation. This section can be considered an exploration of the upi 9 motive, as this is heard multiple times throughout the phrase. Prominent occurrences are in the top voice of the second and third systems.

Example 40: m. 6 of Smith’s *Over*, showing prominent use of the upi 9 motive and rhythmic acceleration as the cadence approaches.

Note that the motive appears in one voice in the same staff. This further supports the intentional congruence of this section. However, as the rhythmic values become smaller (creating the effect of acceleration to the cadential gesture similar to every other preceding phrase) the upi 9 motive appears simultaneously through the use of voice exchange.
The upi 9 “way up high” motive appears in triplicate; this serves to separate the voices into two, distinct lines.

The fifth and final section (measures 7–8) begins with an occurrence of the upi 12 motive between two staves.

Example 41: m. 6 of Smith’s *Over*, showing 3 occurrences of the upi 9 motive.

The upi 9 “way up high” motive appears in triplicate; this serves to separate the voices into two, distinct lines.

The fifth and final section (measures 7–8) begins with an occurrence of the upi 12 motive between two staves.

Example 42: m. 7 of Smith’s *Over*, showing recapitulation of original melody.

Because of the musical departure in the previous section, the appearance of this motive (on the same Eb4 and Eb5) serves as a recapitulation. Also recapitulated is the “bluebird” motive, this time as upi 8. Although the voices are rhythmically united, Smith presents one final contrapuntal gesture (see example 43).
The upi 8 “way up high” motive appears in the top stave while the octave motive simultaneously appears in the bottom. The distinct rhythmic presentations of these two motives serve to remind the listener of the contrapuntal texture that is inherent in a majority of the work.

The conclusion of the piece is comprised of two sets of perfect fifths (Eb4–Bb4 and G4–D5), as seen in Example 11. One can reasonably analyze this as a kind of contrapuntal “spinning out” and as the two voices finally come together in an Eb major seventh chord.

Example 43: m. 7 of Smith’s *Over*, showing recapitulation of the “bluebird” motive and contrapuntal appearances of the “somewhere” and “way up high” motives.

Example 44: m. 8 of Smith’s *Over*, showing interval vector 101220 (EbMaj7), the tonic harmony of the original song “Over the Rainbow.”
Performance Considerations

There are many elements of *Over* that might have been included in the performance instructions but, according to Smith, a formatting problem prevented their addition to the final score. The following is a brief discussion of some of the omitted performance considerations.\(^{49}\)

One of the most difficult elements of *Over* is the notation of rhythm. With almost 80 occurrences of tuple rhythms, multiple dotted and double-dotted rhythms and very few bar lines the piece is a major undertaking. Smith comments on this:

> The first thing you want to do is to come as close as you can to getting the rhythms correct, and then to violate those ideas in order to figure out what you want to say as a musician. How do you want to interpret the script? Then pull back and come closer to the piece again. So there is negotiation between violation and adherence that goes on in interpreting any music but certainly for interpreting so-called “irrational” rhythms in my music.\(^{50}\)

Another rhythmic challenge is the hollow dot. The performance notes imply that this figure “…equals 1/4 of the duration of the note it follows.”\(^{51}\) For instance, a quarter note with a hollow dot is equivalent to one quarter note plus one sixteenth note.

Dynamics are another consideration. Although the piece is polyphonic, both voices share the same dynamic markings throughout. The performer should recognize that a single dynamic marking has a wide range. Dynamic adjustments should be made that will emphasize or deemphasize melodic fragments in this highly contrapuntal setting\(^{52}\).

Finally, there is a solemn theme to *Over* that should be considered by the performer. In his own words, Smith states:

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\(^{49}\) Stuart Saunders Smith, telephone interview by the author, August, 13, 2015.  
\(^{50}\) Ibid.  
\(^{51}\) Stuart Saunders Smith, performance notes for *Over* (Sharon, VY: Smith Publications, 2005).  
\(^{52}\) Stuart Saunders Smith, telephone interview by the author, August, 13, 2015.
And the piece, like a lot of my pieces, has a subtext: what does mortality mean? The word “over” is to be used a number of different ways, as well as the song “Over the Rainbow.” What is gonna happen to us once we’re over? Is there a pot of gold at the end of the rainbow (chuckles) or is it just simply over? We don’t know. So the piece should be played as an elegy.53

Stuart Saunders Smith’s Over illustrates the ability of orchestra bells to execute two distinct musical lines. Smith’s contrapuntal writing and allusion to Over the Rainbow create a musical texture that sounds like a free improvisation on the popular song. The complex rhythmic notation and motivic development are among the many elements that make Over a unique, challenging addition to solo orchestra bell literature.

53 Ibid.
CHAPTER 7
HOMOPHONIC TEXTURE AND MOTIVIC DEVELOPMENT: WILL OGDON’S
A LITTLE SUITE AND AN ENCORE TANGO
FOR SOLO ORCHESTRA BELLS

Introduction

Just as composers have the ability to create independent music lines on orchestra bells, they can also create primary melodic lines (musical foreground) and secondary accompaniment lines (musical background). This is typically achieved through the use of two (or more) staves. Different stroke techniques (staccato, legato, etc.) and the use of various dynamics allow performers to simultaneously create musical background and foreground. The musical composition A Little Suite and an Encore Tango by Will Ogdon will be examined in regard to its homophonic texture: its colorful harmonic background and its musical development of a motivic idea in the foreground.

Background Information

Composed in 2006, A Little Suite and an Encore Tango is a collection of musical miniatures composed by Will Ogden (1921–2013) for solo orchestra bells. Ogdon, an American composer, was a founding member of the highly respected music department at The University of California-San Diego. Among his teachers are Rogers Sessions and René Leibowitz. His compositional output includes a large amount of miniatures, including his Three Trifles for Cello and Piano (1957), Six Small Trios (1982), and Variation Suite for Violin and Viola (1996). Flutist John Fonville, Ogdon’s colleague at The University of California-San Diego, states, “His music is highly expressive, nostalgic, and cheerful. He was quite keen on continuing the traditions of Schoenberg in an elegant and refined manner. Much of his music is written in the

form of brief miniatures and there is scarcely anything written for more than five or six players.”

Ogden’s paradigm of the relationship between the composer and audience is somewhat different from that of other composers; Ogden’s compositional language is not constructed with the audience in mind. He states:

It has to satisfy me and my musical sense and sometimes it takes a long time in working on a piece to satisfy that aspect of it. So I believe the idea of the audience determining what you do is not a prospect in my thinking. I think that I am one of the audience anyway, and if I can find satisfaction in what I do I think there will be others that will do so too.

In my opinion, this compositional philosophy yields a sound that is uniquely his own. Ogdon is able to freely express his musical ideas without the restraint of trying to please an audience.

*A Little Suite and an Encore Tango* was a commission by Sylvia Smith for the *Summit* collection. Smith states, “I already knew Will a little bit. He had written a xylophone solo for me called *A Sylvan Suite for Xylophone* so we had worked together a little bit already and I had a very good idea of what he would write. He was delighted to be asked to write a solo work for orchestra bells and said that he hadn’t thought of the bells in this way before.”

Musical Language

The first miniature of Ogdon’s *A Little Suite and an Encore Tango* is titled “Morning Song”. There are two prominent elements in this movement: (1) colorful harmonic shifts in the musical background, and (2) an upi 11 motive that is developed in the foreground. These elements serve to create a calm and sweet musical texture, reminiscent of the sound created by a

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55 John Fonville, telephone interview by the author, October 25, 2015.
57 Sylvia Smith, telephone interview by the author, October 28, 2015.
musical jewelry box. The piece begins with the striking of an upi 3 (C#4–E4) accompaniment figure in the bottom staff that creates the tetrachord 4-20 (0158) as the top staff sounds a melodic, upi 11 (A3–G#4). See example 45:

Example 45: m. 1 of Ogdon’s “Night Song,” showing the following:
1. Pitch-class set [8914] which has the prime form (0158).
2. Upi 11 motive.
3. Specific instructions for release of the roll.

The first gesture is elongated by a tremolo that gradually decreases in volume, leading to a cadential point. Ogdon’s use of dynamics on this opening gesture seems to communicate a sweetness and calmness in this movement; he uses the effect of *messa di voce*, in which a gradual crescendo and decrescendo occur on a single sonority. It appears that he simply wants the listener to rest on the sound of this tetrachord. This use of dynamics is a vehicle that moves a sound from the musical background into the foreground and again to the background. The notation at the cadential point is very specific. It is notated in a way that necessitates the
performer ending the tremolo on E4 and allowing it to sustain. This is evidence of Ogdon’s understanding of the intricacies of writing for orchestra bells; there is little room for interpretation of the release of the tremolo.

The upi 11 motive appears again in the melodic foreground of measure 3. See example 46:

Example 46: mm 3–4 of Ogdon’s “Night Song,” showing the following:
1. Prominent use of the upi 11 motive.
2. Primary motive development in the musical foreground.
3. G pedal in the musical background.

Because of the written instructions for the player to let the previous sonority ring (refer to measure 2 of Example 1), the listener can hear the juxtaposition of the previous pitch-class set [8914] with the new pitch-class set [56T0] in measure 3. In fact, even though they are separated by time, they simultaneously ring due to the sustaining quality of orchestra bells.

It is also important to notice the occurrences of the upi 11 motive in the musical foreground of measures 3 and 4 (example 2). In the first occurrence (measure 3), the motive is sounded between F5 and F#4. In the second occurrence (measure 4), it is between G3 and F#4.
Each time it appears, its placement is changed: in measure 3 it is on the outside notes of the figure and in measure 4 it occurs on the first two pitches (G3–F#4).

This section of music is further unified by pitch. In example 3, the notes of the musical foreground are included on the upper staff, and the pitch-class set and prime form of each is listed on the staff beneath it.

Notice the movement of prime form (0158) in measures 1 and 2 to (0157) in measures 3 and 4.

Example 47: mm 1–4, reduction of Ogdon’s “Night Song” showing prominent use of the upi 11 motive in the musical foreground and the pitch-class sets for each occurrence.

To end this section of music, Ogdon is very specific in his notation of the cadential point (see example 2, measure 4). He instructs the performer to stop the last note of the phrase from ringing into the next measure, again illustrating his comprehension of the sustaining quality of orchestra bells. This prevents the sustain of the instrument from continuing as the next sonority occurs.

Measures 5 and 6 contain another colorful harmonic shift in the form of a tremolo that spells another tetrachord 4–20 from pitch-class set [0158]. See example 48:
The earlier appearance of the tetrachord 4-20 (in measures 1 and 2), coupled with the motivic use of the upi 11 motive throughout the piece help to solidify the combined harmony of measures 5 and 6. Also notable is Ogdon’s use of dynamics to create continuity between the two measures. Although the notes change from Ab4 and C5 (m. 5) to Db5 and F5 (m. 6), they begin piano, crescendo to mezzo piano, and crescendo again to mezzo forte, creating one continuous musical idea unified by amplitude.

The upi 11 motive enters again in measure 7. See example 49:

Example 48: mm 5–6 of Ogdon’s “Night Song,” showing:
1. Further use of tetrachord 4-20.
2. Dynamics used to create continuity between measures.
In this setting the motive appears between the third short note (Eb4) and the long sonority (D5). The staccato articulation highlights the motivic development, pulling the idea into the musical foreground. The use of articulation to create musical foreground occurs again in the bottom stave of measures 7 and 8 (see example 4). Three double-stops (the simultaneous striking of two pitches) occur in the bottom staff, all at upi 11. This is another example of motivic development. The *marcato* articulation requires the performer to use a different stroke technique to create these double-stop sounds, again drawing the material into the musical foreground. Ogdon’s precise notation for the release of these pitches solidifies their presence in the musical foreground.

Measures 9 and 10 are a brief departure from the first 8 measures. These two measures are the only portion of the composition in which the pulse changes from a quarter note to an eighth note (the time signature changes from 3/4 to 3/8) and it contains almost entirely new musical material. See example 50:

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Example 49: mm 7–8 of Ogdon’s “Night Song,” showing:
1. Upi 11 motivic development in the musical foreground.
2. Notated (stop) releases.

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Example 49: mm 7–8 of Ogdon’s “Night Song,” showing:
1. Upi 11 motivic development in the musical foreground.
2. Notated (stop) releases.
Also distinct is the use of dynamics. In the previous section Ogdon linked measures together with continuous dynamics. However, in measures 9 and 10, each measure has its own, distinct dynamic markings. To me, Ogdon’s use of dynamics in these measures helps to bring them into the musical foreground.

The upi 11 motive, which is found in the first two pitches of each measure, serves to link these measures to the rest of the composition. The placement of the interval at the beginning of each measure suggests that the first note is the root of the harmony, creating another colorful tonal shift as well as bringing the idea into the musical foreground.

The conclusion of “Night Song” (mm 11–13) begins with a tremolo in the musical background on Ab4. See example 51:
The G5 grace note that precedes the Ab4 tremolo illustrates another development of the upi 11 motive, the primary motive of the piece. This serves to validate the importance of this sonority as well as create another colorful harmonic shift from the sonorities in the previous measures (refer to example 5).

The final two measures of “Night Song” illustrate a further development of upi 11 motive. See example 52:

Measure 12 contains a tremolo on G4–Bb4 that ends, with no sustain, on B3. The importance of upi 11 from Bb4–B3 is motivic and cannot be overstated. Another tremolo (G#3–B3) occurs in
the final measure, ending (again with no sustain) on B3. The occurrences of G4 and Bb4 in measure 12 and G#3–B3 in measure 13 create two upi 11 motives. The resolution of both tremolos to B3 is thematic; B3 serves both as a pedal in measure 12 and as a prepared, final gesture of resolution in measure 13. The dyads in these measures are an extraordinary use of Ogdon’s primary motive. Because of the appearance of B3 in measure 12, there is a strong sense of resolution when it is repeated in measure 13.

Ogdon’s harmonic shifts and development of an intervallic motive in “Night Song” have created a noteworthy composition that is idiomatic for orchestra bells. Through the use of dynamics and articulation, his placement of figures in the musical foreground and background illustrate the ability of a performer to execute homophonic music on orchestra bells.

“A Quiet Midnight” is the second movement in Ogdon’s *A Little Suite and an Encore* Tango. Much like the first movement, “A Quiet Midnight” is homophonic in texture. There are two elements, both relating to dynamics, that deserve further examination.

Ogdon’s use of amplitude indications in “A Quiet Midnight” is notable. Most of the musical gestures are assigned different dynamic markings and the top and bottom staves contain separated dynamic indications. See example 53:

Example 53: mm 5–8 of Ogdon’s “A Quiet Midnight” showing 16 amplitude indications in 4 measures.
Example 53 illustrates the highly specific use of amplitude-related indications. In only four measures of music, there are sixteen instructions regarding volume. Although Ogdon uses only six different markings in “A Quiet Midnight” (crescendo, diminuendo, pianissimo, piano, mezzo-piano and mezzo-forte), there are fifty-one notations for them in this movement of only sixteen measures. Ogdon’s use of these markings has created a counterpoint of amplitude that is as important as pitch and rhythm. The meticulous use of dynamics allows the performer to create a multi-layered foreground/background texture on orchestra bells.

The second and final comment on this movement can be made on Ogdon’s notable use of staccato markings (in measures 4 and 14) and the crescendo/diminuendo “hairpins” on single pitches (in measures 8 and 10). See example 54:

Example 54: mm 14 and 10 of Ogdon’s “A Quiet Midnight” showing staccato (m. 14) and hairpin dynamics occurring after the attack of the pitch (m. 10).

While the staccato markings in these passages can be achieved through extraordinary means (very fast muting with the fingers) the tempo of the piece and the notes surrounding the staccato marking do not allow the player to properly execute the articulation on a standard instrument without a sustain pedal. Many players will perform this articulation with a quick upstroke that will change the attack of the note but this does not noticeably affect the note’s release. The hairpins on a single pitch (Example 10, measure 10) present another problem: it is simply not
possible to increase the amplitude of a note on orchestra bells once it has been struck. Sylvia Smith, the publisher of this work, comments: “It is tricky because he has markings where you have a crescendo in a place where you don’t strike. So you have to really think about, as a player, how you’re going to do that. I ended up thinking it and imagining singing it and it seemed to come out closer to what he wanted.”

The third movement, titled “Morning Bells,” is also homophonic in texture. There are two features in this movement that further illustrate the use of orchestra bells in creating a musical foreground, and these features require further examination.

The first feature for discussion is the use of upi 12 double-stops found in measures 1–3. See example 55:

Example 55: mm 1–3 of Ogdon’s “Morning Bells” showing the use of upi 12 to put a melody in the musical foreground.

The use of double-stop octaves is a common technique composers use to highlight a melodic line on orchestra bells, pushing it into the musical foreground. Some examples of this technique include the second movement of Kodaly’s Háry János Suite (1927) at measure 8 and Mahler’s Symphony No. 7 (1904–1905) at rehearsal numbers 61 and 264. However, Ogdon begins the first

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58 Sylvia Smith, interview.
upi 12 with a grace note that is performed immediately before its octave counterpart. The grace
note is another method of pushing the melody into the foreground; the listener is drawn to the
slight separation between the first set of double-stops.

The second notable feature of this movement is Ogdon’s use of notated releases in the
bottom staff of measures 4 and 7. See example 56:

![Example 56: m 4 of Ogdon’s “Morning Bells,” showing notated releases (stop) to move
the figures into the musical foreground.](image)

Ogdon’s use of notated releases (indicated as “(stop)” in the score) move the bottom
voice into the musical foreground. The G5 in the top staff, which was part of the musical
foreground becomes background in the texture of the piece.

The final movement, titled “An Encore Tango,” is similar to the rest of the suite in that it
contains a noteworthy amount of dynamic and articulation markings (51 dynamic markings and
30 articulation instructions in 19 measures) and emphasizes an upi 11 motive throughout.
However, “An Encore Tango” deviates from the other movements in its use of rhythm and its
lack of a musical background; all of the music is in the foreground.

Perhaps the most notable element of this movement is found in Ogdon’s use of the
Argentinian tango. This highly syncopated music uses the habanera rhythm (a dotted eighth-note
followed by a sixteenth-note and two eighth-notes) and variations of it to rhythmically ground the accented off-beats. See figure 10:

Figure 10: The \textit{habanera} rhythm and two variations.

Ogdon’s “An Encore Tango” is highly syncopated and uses variations on the \textit{habanera} to create a tango. The effect is magnificent; it sounds like a rhythmic, mechanical music box that has just been wound to full capacity and turned on. However, in Ogdon’s version, the occurrences of the \textit{habanera} are displaced throughout the measure and are dependent on the composite rhythm of multiple voices.

Figure 11: measures 2, 4-5 and 10–11 of Ogdon’s “An Encore Tango,” showing use and displacement of \textit{habanera} variation.
His displacement of the habanera rhythm aurally shifts the downbeat and blurs the meter for the listener. Because of the composite rhythm created by the two voices, there is one musical line with no accompaniment or background.

As the movement progresses, the meter and pulse become more obscure through the use of tuplets.

Example 57: mm 11–13 of Ogdon’s “An Encore Tango,” showing tuplet variations on the habanera, creating a rhythmic ritardando.

Generally, the piece has progressed from lively, syncopated sixteenth notes to a mixture of duple and triple rhythms that disintegrate the quintessential tango rhythm. When combined with the poco allargando in measure 11, these mixed rhythms create a sense that the piece is mechanically slowing down, similar to the way a mechanical music box would slow down as the tension in the winding mechanism is gradually released.

Performance Considerations

One of the most difficult technical demands of this music is the conveyance of musical foreground and background. Because the music is written with specific accompaniment and melodic gestures, the performer should be mindful of the primary and secondary voices in the
composition. This cannot be communicated with the selection of mallets; the music demands that both hands are involved in foreground and background figures; two different mallets would interfere with consistency of timbre in the musical line. If the performer is intentional about emphasizing what should be prominent, the proper effect will be attained.

Special care must be taken to perform this music with a warm, nostalgic feeling. The performer should work to create an amicable dialogue with the audience; he or she should select mallets that produce a warm, gentle sound and utilize technique consisting of light, gentle strokes. The creation of a tender, dance-like texture should be in the forefront of the performer’s mind. Ogdon states, “My music is generally very small-scale and relatively intimate. I compose as if I’m talking to one person.”

Ogdon’s use of dynamics, articulation, notated releases, up to 12 double-stops, and composite rhythms in *A Little Suite and an Encore Tango* has helped him create clear musical foreground and background. The piece stands as a fine example of homophonic music performed on solo orchestra bells.

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CHAPTER 8
A MUSICAL LEAD SHEET: LAFAYETTE GILCHRIST’S

BREAKS THROUGH
FOR SOLO ORCHESTRA BELLS

Introduction

Just as composers have the ability to be highly specific in their notation, controlling every nuance of sound the performer makes, they also have the ability to allow the performer to decide many of the elements of the musical performance. One of the ways they can do this is through the use of lead sheets. Using a lead sheet, the composer can dictate specific elements such as melody, lyrics, harmony, and rhythm. This leaves the remaining decisions (style, voicing, improvisation, etc.) in the hands of the performer. Lafayette Gilchrist’s Breaks Through is a lead sheet that was created specifically for solo orchestra bells. In this chapter, I will examine Breaks Through, specifically for its use of melody, rhythm and harmony in the composed solo.

Background Information

Lafayette Gilchrist (b. 1967) is the band leader for the Baltimore-based band The New Volcanoes. He is a pianist and a jazz-funk composer, with a distinctive sound that focuses on color and rhythmic groove. National Public Radio music critic Kevin Whitehead describes Gilchrist’s music: “It’s not just about the notes; it’s also about the waves in which they come, and the troughs in between.” Gilchrist’s approach to composition is due to his informal early exploration of sound. He discusses this in an interview with NPR’s Rebecca Roberts:

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Gilchrist: I sat down at it (the piano) and I remember the moment like it was yesterday because I remember the very first thing I hit on the keyboard, I liked the sound. I didn’t know then but now that I reflect upon it, I was already assigning order to the sounds that I was making.

Roberts: Since you started with moving things around and imagining how you wanted things to sound in your head as opposed to starting when you’re eight years old, learning *Für Elise*, do you think that is a blessing or a disability? Is it going straight to painting cubism without ever learning line drawing?

Gilchrist: I don’t know because I think at some point you have to try and learn as much as you can learn about your instrument. I wouldn't recommend the way I came to it but I came to it the way I came to it. That’s the way it happened.61

The result of his early experiments is an oeuvre of impressionistic funk and jazz music that is deeply colorful, incorporating non-functional chords with multiple, altered extensions. Examples of his works written in this language are *In Depth* (2013) and *Gogo Suite* (2014). Composed by Lafayette Gilchrist in 2005, *Breaks Through* is a musical composition for solo orchestra bells that incorporates improvisation. The piece was commissioned by Sylvia Smith for the *Summit* collection.

Musical Language

A good lead sheet must be specific enough to relay the composer’s voice in the composition but vague enough to give the performer permission to insert his or her own voice. Lead sheets that are overly specific feel rigid, and lead sheets that are overly vague don’t give enough affirmation that the composer’s work is being performed during an improvisatory section. Lafayette Gilchrist’s lead sheet to *Breaks Through* is so well crafted that it gives the performer the assurance to know that he is playing Gilchrest’s composition, but the freedom to insert his own ideas into the music. A skillful improviser will take existing elements from the

composed solo and use them as a foundation for the improvisation, weaving them into the solo.

In this examination of Gilchrist’s musical language, this chapter will focus on three specific elements (melody, rhythm and harmony) in the composed portion of *Breaks Through* that could be used as a basis for improvisation, thereby using Gilchrist’s ideas and inserting the performer’s voice into the composition.

Melodically, *Breaks Through* makes use of an upi 1 motive in the composed solo. There is an evident melodic line comprised of semitones that begins on E4. See example 58:

Example 58: mm 1–2 of Gilchrist’s *Breaks Through*, showing a pattern of melodic release through the use of the upi 1 motive.

After the upi 6 sonority (E4–Ab4) on the downbeat of measure one, the Eb4 in the second sonority creates a sense of melodic release. The upi 5 (Eb4–Ab4) is a point of resolution from the stark upi 6 to a perfect interval, creating a moment of melodic relaxation. The same principle occurs on beat 3 of the first measure. The motion from D4–C#4 is another moment of melodic release, superseding the tense upi 2 (E5–Gb5) in the same part of the measure. One is immediately drawn to the upi 1 motive; this is a melodic line that is important to Gilchirst, and seems important to incorporate into the soloist’s improvisation.
Furthermore, when comparing the first two measures with the harmony Gilchrist provided in the lead sheet, the soloist is given more permission to insert his/her own melodic voice. In a typical lead sheet, the chord symbol (change) and composed melody will be in agreement. An F major-seventh (FMaj7) chord will utilize pitch classes 5-9-0-4 in the melody. Traditionally, pitch-class 3 should be avoided in this context because it creates a dominant sound. However, in *Breaks Through*, Gilchrist notates specific chords but uses pitches outside of the harmony he writes.

See example 59:

Example 59: mm 1–2 of Gilchrist’s *Breaks Through*, showing notated harmony that is different from the melody.

The first change (FMaj9\(^{13+5}\)) implies pitch classes 5-9-1-4-7-10 and 2, yet Gilchrist’s melody utilizes tones that are in direct contradiction to this harmony (compare examples 1 and 2). The octave double-stop creates a minor sonority against the F root and the Eb4 creates a minor-seventh dominant sonority where there should be a major-seventh. This illustrates Gilchrist’s use of non-harmonic tones in his writing, and allows the soloist permission to continue to develop the upi 1 motive even if it doesn’t fit into the traditional realization of jazz chords.

Rhythmically, the composed melody of *Breaks Through* includes distinct figures that may be used when improvising. See example 60:
As illustrated above in example 3, Gilchrist uses rhythmic activity to create a funky rhythmic texture that alternates between strong, on-the-beat sounds and strong syncopations; this is common in much of his music. Conversely, when compared to the rhythmic phrase below in measure 9, the use of rhythm in measures 17–19 is minimal. See example 61:

The absence of active rhythm in this phrase is remarkable when compared to earlier uses of rhythm. In these measures, harmonic color seems to be the driving force of the musical phrase; rhythmic activity is minimal and melodic motion seems barely perceptible. In considering the rhythmic variety in the composed solo—including active, syncopated rhythm as well as basic, slow-moving rhythm—the soloist is given the freedom to incorporate both types of rhythm in the improvisation.
Harmony is a significant element to be considered when performing the improvised section of *Breaks Through*. How does one decide the kind of voicing to use in the improvisation? The way Gilchrist voices his harmonies in the composed solo gives the performer enough information to stay true to his composition in the improvisational sections, yet allows plenty of freedom to select from the variety of chord structures that are used. See example 62:

![Example 62: mm 9–10 of Gilchrist’s *Breaks Through*, showing cluster and fourths voicing in close proximity.](image)

The cluster chord tones in measure 9 (Ab3–Bb3–Cb4) are diatonic to the notated Ab-6 harmony (8-11-3-5); and although their close proximity would imply tension, the overall sound is warm and colorful. This is in contrast to the voicing in measure 10 (see example 4), where the fourths voicing sounds more open and spacious; Gilchrist uses tones outside of the Ab-6 harmony to create a distinct color, particularly in his use of the C4 and E5. The C4 creates a major sound against the Ab root, clashing against the notated minor sonority. The E5, when coupled with the Ab root and C4 color tone, creates an augmented sound (8-0-4) against the notated Ab-6. The chord in measure 9 is harmonic and tertian and the chord in measure 10 is non-harmonic and based on fourths. Their appearance in Gilchrist’s composed solo (especially so close in
proximity) provides all the information needed for the performer to create an individualized voicing in the improvisation section consistent with the sound of Gilchrist’s music.

Performance Considerations

One of the most difficult aspects of this work is the absence of phrase marks, dynamics, articulation and other notational elements that assist the performer and audience in understanding the music. This is especially difficult in an improvisatory piece of music that purposefully excludes harmonic motion. However, it allows for a multitude of interpretations. For example, in measure 1, the performer can decide to perform the first sound of the bottom staff as an appoggiatura.

Example 63: m. 1 of Gilchrist’s *Breaks Through*, showing the E4-Eb4 motion.

This makes E4 the non-harmonic tone and Eb4 the chord tone. If the performer decided to do the opposite, E4 could be perceived as the harmonic tone and Eb4 a chromatic passing tone. Because of the use of non-functional, colorful sonorities, both interpretations are equally valid and correct. Consistency might be the best approach in a situation such as this. Performing these gestures with consistent interpretation will allow the audience to better understand the music.

A performer who decides to use the lead sheet for improvisation should work to find creative and interesting ways (that are not harmonically driven) to build a solo. There are multiple ideas in the composed solo that deserve improvisatory exploration. Among them are: (1)
the semitone motive, (2) alternation of clusters and widely spaced chords, and (3) rhythmic variety.

A performer who wants to perform this composition with the composer’s intent in mind should not over-plan the performance; instead, he or she should be open to discover and embrace the differences each performance can bring. This is one of Gilchrist’s paramount tenets. Gilchrist says:

I’d still say it’s the sense of adventure, and journey into the unknown that still keeps me motivated. Knowing that each time you play something, you know it’s different from any other time that you played it before, or play it after. Sometimes just that knowledge is stimulation enough. You know, sometimes I can’t wait to wake up, just to play and see what I sound like on that particular day. And I’ve never been disappointed, as everyday it’s a little bit different. I may play the same piece for three weeks in a row, or something, and each time it is a little different. So, I guess to sum it up, music is endless discovery.62

Finally, the performer should take into consideration the range of the piece (the lowest and highest pitches of the standard instrument are used in performance of this work) as well as the intentional portrayal of musical foreground and background. Selection of mallets that produce consistent tone throughout the entire range of orchestra bells at both very loud and very soft dynamics is imperative. This will allow the performer to differentiate between accompaniment and melodic figures, grace notes and primary notes, and points of tension and release.

With it’s specific notation and intentional freedom in interpretation, Lafayette Gilchrist’s *Breaks Through* is written in a way that allows the performer to deliver a powerful, expressive performance on solo orchestra bells.

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CHAPTER 9
A TONE POEM: ROSCOE MITCHELL’S
BELLS FOR NEW ORLEANS

Introduction

The tone poem, a piece of music that sonically illustrates a non-musical source, can inspire listeners to achieve a deeper understanding of the world. Although the term is usually reserved for large orchestral works (for example, Strauss’s Don Juan and Liszt’s Prometheus), the term can refer to any music that is composed in this manner. In fact, if an instrument can illustrate a non-musical idea in the form of a musical composition, it may be considered an expressive instrument, capable of communicative performance. Roscoe Mitchell’s (b. 1940) Bells for New Orleans (2005) is a tone poem for solo orchestra bells. An examination of this work will illustrate the adeptness with which this instrument can convey non-musical ideas in a musical composition.

Background

American composer, jazz saxophonist and educator Roscoe Mitchell grew up in the south side of Chicago where the tolling of bells from a nearby Catholic church were a vivid memory of his childhood. Throughout his life, ringing bells have become a sound that he associates with a calling to come together or of deep sadness. Mitchell states, “I will never forget the mournful bells that played at the funeral of Princess Diana in London. This is something I had never experienced to that degree.”63 When Sylvia Smith asked him to write a solo orchestra bell piece for Summit, he wanted to use the instrument to tell the story of hurricane Katrina in New Orleans. He continues, “The instrument provided me with a platform to convey the feelings I

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63 Roscoe Mitchell, telephone interview by the author, November 6, 2015.
had; I knew some of the people who were affected.\textsuperscript{64} \textit{Bells for New Orleans}, Mitchells’s contribution to \textit{Summit}, tells the story of the chaos and mourning occurring in the days following the hurricane.

**Musical Language**

Although \textit{Bells for New Orleans} is a through-composed tone poem, it is divided into a five-part form (measures 1–6, 7–20, 21–33, 34–45 and 46–52). Each of the five parts moves from catastrophic chaos to mournful order. With the exception of the final phrase, each of the sections begins with pitch class G and utilizes multiple occurrences of upi 6 and upi 1 in its development.

The first section (measures 1–6) sets up Mitchell’s pattern for the work as a whole. After G3 is struck, a brief tremolo on upi 1 (E4–F4) serves to convey a sense of pain.

Example 64: mm 1–3 of Mitchell’s \textit{Bells for New Orleans}, showing the use of G3, upi 1 motive, upi 6 motive and rhythmic disunity.

The use of rhythmic syncopation and tuplets creates a multilayered texture; Mitchell uses upi 6 alternated with upi 1 to convey a sense of gloominess and pain within the rhythmic chaos. He

\textsuperscript{64} Ibid.
comments on his use of upi 6, the tritone: “For me, the tritone displays a feeling of somberness.” The phrase progresses from rhythmic chaos to synchrony in measure 5.

Example 65: mm 5–6 of Mitchell’s *Bells for New Orleans*, showing the simultaneous ringing of bells.

The simultaneous ringing of these pitches serves to convey bells ringing throughout the city. The use of the tremolo in measure 6 will be discussed later in the discussion of the musical language.

The second section (measures 7–15) follows the same pattern as the first except it is longer. It begins with another tolling of G3, this time mixed with D4, creating upi 7.

Example 66: mm 7–8 of Mitchell’s *Bells for New Orleans*, showing the repeated G3 and the clashing D4-Db5.

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65 Ibid.  
66 Ibid.
The stability of this interval is challenged with the sounding of Db5 in the top staff; there is no comfort to be found in this section of the work. As the section moves toward synchrony, interval class vector 001110, a Db major chord, is sounded in measure 12.

![Example 67: mm 12–13 of Mitchell’s Bells for New Orleans, showing D5 in the top staff clashing against Db major harmony.](image)

Example 67: mm 12–13 of Mitchell’s *Bells for New Orleans*, showing D5 in the top staff clashing against Db major harmony.

The rhythmically offset, repeated D5 in the soprano voice muddles the Db major sonority, creating a persistent, unresolved discomfort. The phrase returns to rhythmic synchrony in measure 14, but the listener must accept the unresolved D5 over the major Db sonority. The painful upi 1 tremolo completes the phrase.

The third section (measures 21–33) is rhythmical and tonally the most chaotic section of the entire piece. In this section, Gb4 precedes G3.

![Example 68, mm 21–23 of Mitchell’s Bells for New Orleans, showing the repeated G3 and chaos created by the second musical line, tuplets and syncopation.](image)

Example 68, mm 21–23 of Mitchell’s *Bells for New Orleans*, showing the repeated G3 and chaos created by the second musical line, tuplets and syncopation.
The two musical lines initiated by these pitches are constantly out of rhythmic synchronization. Mitchell uses syncopation, tuplets and upi 1 alternation to create a confusing musical texture, telling the story of turmoil and disorder inherent in the story of hurricane Katrina. The piece comes to its apex as a single voice occurs in measures 31–33.

Example 69: mm 31–33 of Mitchell’s *Bells for New Orleans*, showing the crying motive.

The tremolo and dynamic indications on A5 communicate a crying gesture; the high pitch alludes to the voice of a child.

The fourth section (measures 34–45) is similar, albeit less chaotic, to the third. Like all previous sections, it begins with the sounding of pitch-class 7 and moves into rhythmic disunity. See example 70:

Example 70: mm 34–35 of Mitchell’s *Bells for New Orleans*, showing repeated pitch-class 7 and rhythmic augmentation.
The use of rhythmic augmentation (compare to the shorter note values in example 5) allows the piece to move away from its climax and toward the conclusion.

The final section (measures 46–52), with its repetition of pitches and use of syncopation, sounds like the mournful pealing of church bells across New Orleans.

Example 71: mm 50–52 of Mitchell’s *Bells for New Orleans*, showing the ringing of two primary motives.

Mitchell’s use of the repeated upi 6 (Ab3–D4) in the bottom voice is rhythmically out of sync with the repeated upi 3 (Ab4–B4) in the top voice. Upi 3 is a transformation of the upi 2 motive; it has progressed from agonizingly painful to bitter acceptance. The use of these intervals conveys an unresolved but acquiescent state of mind. Mitchell’s use of orchestra bells to tell the story of this tragedy further illustrates the instrument’s wonderful capability of solo, communicative musical performance.

Performance Considerations

Because of the allusion to church bells in *Bells for New Orleans*, the performer should select mallets that blend the attack and sustain of each note. Mallets that are attack-heavy will
not create the characteristic “singing” sound of church bells and mallets that emphasize sustain
will not create the characteristic peal of the clapper hitting the inside of the bell. To further the
allusion to church bells and to assist in creating a contemplative setting, the performer may wish
to perform this work out of sight (offstage or backstage) from the audience. Although Bells for
New Orleans is precisely notated, the performer should strive to tell the story in a personal,
highly narrative manner. Mitchell comments on this in a conversation with the author: “I
appreciate different performances by different people. Changing the music to bring out certain
elements on a given day in a given performance is what music is all about. I’m just a student…
and I can learn a lot from what other people see in my music.”67

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67 Ibid.
CHAPTER 10
CONCLUSION

For almost three hundred years, prominent composers have been using orchestra bells in their works. The preceding examination of various chamber and solo works gives evidence to the idea that the instrument is expressive and communicative. The ability of orchestra bells to accompany other instruments, perform solo lines, provide orchestral color and create dynamic diversity has been established.

It is my sincere hope that through this survey I have proven the capacity of orchestra bell performers to create dynamic, colorful, expressive, solo musical performances. Each of the writers of these works is a well-respected composer; many of them are pioneers in the field of contemporary music. Although the pieces I surveyed are incredibly diverse, they all have similar traits: they follow a single motive through a rigorous course of development, are magnificently expressive and they are masterful at highlighting traits specific to orchestra bells.

Orchestra bells are typically one of the first instruments Western percussionists study. Almost every band and orchestral program owns at least one set of orchestra bells. Given the availability of the instrument and the early training percussionists receive on it, why did it take until the end of the twentieth century for composers to begin creating solo works for this instrument? When I began this project, I expected to defend the limitations of the instrument. The instrument’s range, timbre, and lack of control over the envelope of sound seemed to be major reasons solo literature was so rare. However, interviews with composers, performers and publishers have yielded a different result: each of the participating interviewees has stated that they do not perceive any limitations with the instrument. Instead, they simply never thought of it as a solo instrument until someone introduced the idea to them. I asked this question to Dr. Brett
William Dietz, Associate Professor of Percussion at the Louisiana State University School of Music. Dr. Dietz is a pioneer of solo orchestra bell literature and the first known person to record a CD of entirely solo orchestra bell music. He also recorded a web-based recording of *Twelve Bell Canons* by Robert Morris and the entire *Summit* collection. He responds, “I don’t think the challenge was ever presented. I don’t think there were people like me or Trevor (Saint) asking composers to write specifically for the instrument.”

The creation of the *Summit* collection, a group of orchestra bell solos commissioned by Sylvia Smith of Smith Publications, has helped to inspire the revival of a few older works and the creation of new works for solo orchestra bells. The preceding examination of this solo, unaccompanied literature illustrates the ability of the instrument to bring delicate, expressive, bold and powerful solo music to the concert stage.

The result of this idea was the creation of the first generation of solo literature for unaccompanied orchestra bells. As the instrument becomes recognized for its potential as a solo instrument, will this first generation of solo literature satisfy the needs of performers in search of music to perform on this instrument? Composers and performers who have an interest in contributing to solo orchestra bell literature should examine the music by Robert Morris, Marta Ptaszyńska, Stuart Saunders Smith, Will Ogdon, Lafayette Gilchrist and Roscoe Mitchell. These composers, with their distinctive language, have made enormous contributions to solo orchestra bell literature.
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