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Brown Eyes, Black Magic

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BROWN EYES, BLACK MAGIC

A thesis submitted in partial fulfillment of
the requirements for the degree of

MASTER OF MUSIC

by

Marcus Duane Norris Jr.

2017
To: Dean Brian Schriner,
College of Communication, Architecture + The Arts

This thesis, written by Marcus Duane Norris Jr., and entitled Brown Eyes, Black Magic, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this thesis and recommend that it be approved.

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Orlando Garcia, Major Professor

Date of Defense: March 28, 2017

The thesis of Marcus Duane Norris Jr. is approved.

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Dean Brian Schriner
College of Communication, Architecture + The Arts

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Andrés G. Gil
Vice President for Research and Economic Development
and Dean of the University Graduate School

Florida International University, 2017
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ABSTRACT OF THE THESIS

BROWN EYES, BLACK MAGIC

by

Marcus Duane Norris Jr.

Florida International University, 2017

Miami, Florida

Professor Orlando Garcia, Major Professor

This thesis consists of a large composition for chamber orchestra titled Brown Eyes, Black Magic and an accompanying analytical paper. The piece, approximately twelve minutes long, is a tribute to women of color in America. The title pays homage to the “Black Girl Magic” campaign that CaShawn Thompson founded in 2013 to empower women of color by highlighting their achievements in different fields (Wilson 2016). Although the piece is not programmatic, I tried to create a mysterious sound world, in which the listener focuses on the beauty of ever-shifting sonic colors. The composition explores musical texture and timbre, and is influenced by the works of Orlando Jacinto Garcia, Georg Friederich Haas, Krzysztof Penderecki, Arnold Schoenberg, and Anton Webern.
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I. Background

Title and Inspiration

*Brown Eyes, Black Magic* was composed between December 2015 and February 2016, completed Black History Month. The work is a tribute to women of color in America. The title pays homage to the “Black Girl Magic” campaign, which CaShawn Thompson founded in 2013 to empower women of color by highlighting their achievements in different fields (Wilson 2016). When asked about using the term *magic*, Thompson told the LA Times, “I say ‘magic’ because it’s something that people don’t always understand. Sometimes our accomplishments might seem to come out of thin air, because a lot of times, the only people supporting us are other black women” (Thomas 2015). Although the piece is not programmatic, I tried to create a mysterious sound world, in which the listener focuses on the beauty of ever-shifting sonic colors. My aim is for the title to suggest a theme and allow listeners to ascribe their own meanings to the music. Given the emphasis on the ambiguity of the shifting sonorous palette in the work, the title provides an adequate balance between vagueness and specificity.

Instrumentation

I chose to compose this orchestral piece with the goal of learning new approaches to orchestration from my mentor, Dr. Orlando Garcia. Of his works, I am particularly fond of the orchestral compositions and would have considered it to be a missed opportunity not to study orchestration with him. When considering size and instrumentation within the orchestra, I based my decisions on the potential for future
performances. The size of my chamber orchestra provides an adequate timbral palette and makes the piece more feasible to program than a full orchestral work with multiple winds to part.

Historical Influences

I studied many pieces while writing this work. These compositions had varying levels of influence on Brown Eyes, Black Magic. Some of the influences are audible in the musical material, but many appear only on a conceptual or structural level. Below, I briefly mention the most influential works. Later, I will describe more specifically their relationship to my work.

Orlando Jacinto Garcia: From Darkness to Luminosity

By studying From Darkness to Luminosity, I learned that it is effective never to leave any complete silences in a work. I found it interesting how Garcia always keeps sounds sustaining through rests. One way he does this is by instructing the pianist to hold down the sustain pedal at the end of a section. I also learned the technique of muting the piano strings near the pins to create a percussive timbre.

Through studying with Garcia, I also learned about his intuitive method of approaching harmony. I will talk more about this method in the section of this paper dedicated to vertical models, but, in general, his approach is to start with a collection of pitch classes chosen intuitively and then explore them in different combinations, timbres, and registers. Whichever pitch classes are not used in the first collection can be used to build a contrasting collection. Finally, additional collections combining pitches from the
two previous collections can be constructed, which can help to give the work a sense of continuity.

**Arnold Schoenberg: Five Orchestral Pieces, op. 16, no. 3 (“Farben”)**

Through studying Schoenberg’s music, I learned the technique of *Klangfarbenmelodie*. This is the technique “in which the timbres of successive tones gain melodic importance comparable to that of pitch” (Cramer 2002). With this technique, composers orchestrate individual successive pitches using different timbres. Anton Webern’s Concerto for Nine Instruments similarly uses this effect with different instruments playing individual notes to create a composite melody. I use this compositional device at multiple points in *Brown Eyes, Black Magic*, and write in further detail about this technique in chapter three.

**Georg Friedrich Haas: In Vain**

Haas’ *In Vain* influenced my writing, specifically in the coda section of *Brown Eyes, Black Magic*. In sections of *In Vain*, Haas creates a dense polyphonic texture. I was attracted to this contrapuntal texture because it allows listeners to focus on small details and variances. To create this effect, Haas writes multiple, simultaneous, fast, downward arpeggios, each with note durations that subdivide the beat differently. While these arpeggios occur, other performers play long sustained notes and crescendo. Haas creates change by varying the intervals, note durations, and timbres in the arpeggios.

**Krzysztof Penderecki: Threnody to the Victims of Hiroshima**

I found Penderecki’s work of interest because of his use of string *glissandi*. There is a passage in *Threnody to the Victims of Hiroshima* in which he writes multiple *glissandi* starting at a common pitch, but ending on different target pitches, each with
different durations. Prior to Penderecki, Iannis Xenakis used a similar technique in his orchestral work *Metastaseis*. To realize the effect, Penderecki used graphic notation as a form of indeterminacy. Using graphic notation results in the target notes varying from player to player. In *Brown Eyes, Black Magic*, I chose to vary my target notes by notating specific pitches, giving me greater control over the resulting sound.
II. Overview, Structure, and Texture

Macro sections

*Brown Eyes, Black Magic* consists of four continuous sections, plus a coda. In the score, these sections are labeled A, B, C, D, and Coda. The sections are delineated by rhythm and texture. The A and C sections feature slowly shifting sustained timbres and string *glissandi*. The C section contrasts with the A section, featuring additional short melodic fragments and including multiple *glissandi* occurring simultaneously. These *glissandi* in the C section vary in direction, duration, and range. The B section contrasts with the slowly shifting sections, as it includes relatively fast rhythmic figures in irregular patterns. The beginning of the B section presents the material in rhythmic unison, until it gradually becomes more contrapuntal as the piece progresses. The D section and coda each feature *ostinato*, accompanying, shifting, chordal timbres, and the coda includes several simultaneous *ostinati*. **Figure 1** shows a formal outline of the piece.

<table>
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<tr>
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<th>B</th>
<th>C</th>
<th>D &amp; Coda</th>
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<td>Slow shifting timbres and <em>glissandi</em>.</td>
<td>Fast rhythmic figures in irregular patterns.</td>
<td>Slow shifting timbres, and overlapping <em>glissandi</em> varying in direction and duration.</td>
<td>Ostinati and accompanying chords.</td>
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**Figure 1** - Formal Outline
General Notational Principles

The string glissandi in the piece are notated with stems attached to the glissandi lines to indicate beats, as pictured in Kurt Stone’s *Music Notation in the Twentieth Century* (Stone 1980, 21). **Figure 2** exemplifies this notation.

![Figure 2 - mm. 81–82](image1)

Non-pitched sounds, such as air sounds produced by blowing through wind instruments without generating an audible pitch, and tapping on the body of the cello near the f holes with the palm, are notated using alternate note heads. A square note head is used for the air sounds, and an “x” note head for the tapping sounds (Stone 1980, 307). The square note head is not Stone’s notation for air sounds, but the suggested note head was not available in the Sibelius 7.5 software used to notate the piece. The note heads used are explained in detail in the performance notes and remain consistent throughout the piece. **Figures 3 and 4** present examples of this notation.

![Figure 3 - m. 83](image2)
Rhythmic Ideas

Rhythm and duration of notes serve as formal defining factor in *Brown Eyes, Black Magic*. Durations change from section to section, and often within the sections themselves. The A and C sections have no audible pulse, because long note durations occur at irregular intervals. The B section contrasts with these two sections, since it features repeating fast and short note durations. The B section starts with the instruments playing in rhythmic unison and over time evolves into multiple contrasting pulses occurring simultaneously. This method of superimposing contrasting pulses results in music that is free from a unified pulse. An example of superimposed contrasting pulses is shown in **Figure 5**. In this figure, eighth notes, eighth-note triplets, and half-note triplets are all superimposed with a sustained *glissando*. The coda section includes a similar rhythmic technique, where multiple contrasting pulses occur simultaneously. The D section features an arpeggio ostinato that is presented with varying rhythmic values. This ostinato appears in eighth notes and eighth-note triplets. At times the eighth-note version and the triplet version of the ostinato are superimposed against each other. This ostinato is examined further in chapter six.
Figure 5 - m. 91
III. Orchestration Techniques

General Instrumentation

The piece is scored for a chamber ensemble of twenty-three players, consisting of 1 1 1 1 winds, 1 1 1 1 brass, percussionist, piano, and 4 4 2 2 1 strings. The percussion instruments are tubular bells, vibraphone, tam-tam, suspended cymbal, and glockenspiel. The strings are divided into the groups of four first violins, four second violins, two violas, two cellos, and one contrabass; the first and second violins are both sub-divided.

Most of Brown Eyes, Black Magic features the instrument families playing together. Using the families in different combinations provides for more timbral variety and creates a contrast when the families are featured by themselves. The strings are used more than the other instrument families because of their ability to produce extended glissandi. The glissando is a recurrent motivic element of the piece, and is discussed in further detail in chapter six. There are passages in which the brass or wind musicians play mostly alone, but with brief string glissandi providing transitions between two notes.

To organize possible timbre combinations in the work, I created a list of instrumental combinations, considering timbre, range, idiomatic techniques, and registral characteristics. After analyzing the different combinations for certain relationships—namely those containing similar instrumentation or interesting contrasts—I grouped the instrumental combinations as displayed in Figure 6:
**List of Instrumental Combinations**

1. Cello, muted trombone, and piano.
2. Flute, piano, and bowed vibraphone.
3. Muted trumpet, viola, and oboe.
4. French horn, viola, and piano.
5. Flute, string harmonics, and piano.
6. Trumpet, violin, and clarinet.
7. Cello pizzicato, vibraphone, and viola sul ponticello.
8. Vibraphone tremolo, clarinet, and viola pizzicato.
9. Tuba, bass, and piano.
10. Oboe, clarinet, and muted trumpet.
11. French horn, viola, and clarinet.
12. Trombone, bass, and piano.
14. Piano, bassoon, and muted trumpet.
15. Vibraphone tremolo, clarinet, oboe, and muted trumpet.

**Figure 6 - List of Instrumental Combinations**

*Instrumental Techniques*

The work includes several special instrumental effects, such as air sounds, tongue slaps and rams, *glissandi* of artificial harmonics, pizzicato inside of the piano, muting effects with the piano, tapping on the instruments, and circular motion on the tam-tam with a superball, yielding many varied timbres.

Measures 34–35 exemplify air sounds in the winds and mm. 41–43 in the trombone. The notation for both is the same, shown in **Figure 7**. The effect is produced by blowing through the instrument without generating an audible pitch. In the wind parts, the tongue slap is used. This refers to the sound created by releasing suction in the mouth, causing the reed to produce a popping sound that amplifies as it travels through the instrument. In the flute part, the tongue ram is a percussive device whereby the performer completely covers the embouchure hole with the mouth and forcibly seals it with the
tongue, creating a pizzicato-like sound. The notation for both of these effects can be seen in Figure 8.

The pianist produces a *glissando* effect by strumming the strings near the pin, while holding down the pedal. The performance notes indicate that this should be done in the highest register of the piano. Figure 9 shows the notation for this effect:
Pizzicato finger nail, or “pizz. f.n.”, refers to plucking the strings inside the piano with the finger nails. Pizzicato fingertips, or “pizz. f.t.”, similarly refers to plucking the strings with the fingertips. This effect is notated using standard note heads, writing pizzicato above the staff. Another piano technique involves muting the strings inside. This is indicated with the instruction “muted with f.t. near pin,” in addition to a “+” symbol above the note head; performer mutes the string near the pin with the fingertip and plays the notated key on the keyboard. When this effect applies to a group of notes, the performer is instructed to do the same muting effect with the palm instead of the fingertips. The notation for this effect can be seen in Figure 10.

The only extended technique in the percussion part occurs when the performer plays the tam-tam with the head of a superball mallet in a slow circular motion around the instrument. This produces a ringing effect that can be heard in m.89.
In the string parts, aside from standard effects such as pizzicato, *sul tasto, sul ponticello*, and harmonics, only *glissandi* of artificial harmonics, pizzicato glissandi, and tapping on the instruments are used. The *glissandi* notation is shown in Figure 11, and the notation for the tapping effect is shown in Figure 12.

![Figure 11 - m. 104](image)

![Figure 12 - mm. 86–87](image)

**Klangfarbenmelodie and Transitioning Timbres**

The *Klangfarbenmelodie* technique associated with the second Viennese School served as models for creating shifting timbres in *Brown Eyes, Black Magic*.

*Klangfarbenmelodie* is the practice “in which the timbres of successive tones gain melodic importance comparable to that of pitch,” (Cramer 2002). Schoenberg’s *Farben*, and Webern’s Concerto for Nine Instruments are excellent examples of this technique.
**Figure 13** shows an example of the use of this technique in *Brown Eyes, Black Magic*. Here, the material in the trumpet, vibraphone, and piano parts arpeggiated the minor triad, with each instrumentalist playing one of the notes of the triad. Assigning individual notes of a motif to different timbres is characteristic of *Klangfarbenmelodie*. The minor triad is treated as a motif in the piece, and is further developed in the D section.

![Figure 13 - m. 101 (transposed to concert pitch)](image)

Within gestures, musical materials are often orchestrated to allow one or more timbres to transition seamlessly into a contrasting timbre. String *glissandi* are often part of this transitional process. This method of transitioning from one timbre to another occurs in every section of the work. **Figure 14** shows an example of this technique. In this figure, the oboist starts by playing the pitch D and is joined by the violists. The violists then glissando to E flat. The violist, the oboist, and the trumpet player play E flat simultaneously, as the oboist and violist fade out. The percussionist plays a tremolo on the vibraphone on the note E flat, starting quietly and increasing in volume as the trumpet player decreases in volume. The resulting effect of this gesture is a transition of timbres.
This effect can be understood as a variation of *Klangfarbenmelodie*. Instead of individual notes being assigned to individual alternating instrumentalists, multiple instrumentalists play the same note with different durations, entrance points, dynamics, and articulations to create one gesture.

Figure 14 - mm. 7–9 (transposed to concert pitch)
IV. Basic Techniques

*Pitch Organization*

The three primary pitch collections in this work are shown in **Figure 15**. This figure also includes a diagram indicating where each of the pitch collections is used in the piece. Pitch collection one, which forms the unique octatonic septad, was chosen intuitively, at the piano. The remaining unused pitch classes formed the complementary pitch collection two. Pitch collection three (the whole-tone hexachord plus a tritone) freely combines pitch classes from the first two collections.

![Pitch Collections Diagram](image)

**Figure 15 - Pitch Collections and Their Use**

The material in section A emphasizes the intervallic relationship of alternating whole and half-steps in collection one, an example of which can be seen in **Figure 16**. In this figure, *glissandi* ranging half and whole steps occur simultaneously. All the *glissandi*
in the A section span either a minor or major second. *Glissandi* ranges are discussed further in chapter six.

![Figure 16 - mm.13–14](image)

**Figure 16** - mm.13–14

Pitch collection two consists of the pitch classes A flat, B flat, D flat, E, and G. This is a subset of the octatonic collection and can be thought of as a diminished-seventh chord, (E, G, B flat, D flat), plus the additional pitch class A flat. Although this relationship is not emphasized melodically, the collection is presented as a vertical model or chord, allowing the diminished-seventh quality to be heard. A reduction of these vertical models can be seen in **Figure 17**. Additionally, in m. 83 only the pitches from a diminished-seventh chord are used. A reduction of this is shown in **Figure 18**.

![Pitch collection two](image)

**Figure 17** - mm. 56–67 Reduction

ms.56  ms.67
Pitch collection three consists of the pitch classes A flat, A natural, B, D flat, D natural, E flat, F, and G. The notes in pitch collection three form four pairs of tritones, A and E flat, B and F, D and A flat, and G and D flat. These tritone pairs are emphasized in the music, specifically in mm. 118–124. Figure 19 shows this passage. In these measures, pairs of string instrumentalists play a starting pitch in unison, and then one voice moves downward in oblique motion. One of the players performs a downward *glissando* with the range of a tritone, while the other sustains the original pitch. By m. 122, all four pairs of tritones are being played simultaneously.
Rhythmic Detail

The A and C sections feature mostly long durations and slowly evolving material. The B section features shorter durations and more rhythmic variety, in contrast to the slower sustained material heard in the opening A section. Whereas the A section lacks a distinctive pulse, the B section features multiple pulses. The note durations in the rhythmic B section follow a trend: broadly speaking, they start short and become longer as the section progresses. This trend is not strict, and there are instances in which a note is followed by a note with a shorter duration. These deviations make the music sound less predictable. The B section begins with sixteenth notes, at a tempo of 90 beats per minute. These are the shortest note durations of the section. Although the sixteenth notes occur at multiple points, there are no shorter note durations. The material at the start of the section is presented in rhythmic unison, and, as the work progresses, the material becomes more contrapuntal.

The material in the Coda section emphasizes polyrhythms, featuring eighth notes, eighth-note triplets, sixteenth notes, dotted eighth notes, and long sustained notes occurring simultaneously. The polyrhythmic texture of the Coda section, similar to the B section, combines multiple pulses to create the impression of an absence of pulse. Each instrument plays an arpeggio with note durations that subdivide the beat differently. The individual rhythms contrast each other, and the resulting effect is that the listener does not hear any steady pulses.
V. Vertical Models

With the exception of the Coda, all sections of the work are structured using a chordal plan. Each section is derived from vertical models, even if the pitches do not start or end together. These chords are built using pitch classes from the three pitch collections. Figures 20 through 22 show these models, the measure number at which they occur, and the pitch collections comprising them.

From the start of the piece until m. 56, only the pitch classes from pitch collection one are used. All chords from the beginning until m. 28 are built from four pitch classes. The chords in mm. 10 and 11 are the same pitch classes, and in the same vertical order, as the chords in mm. 13–14. The intervals in between the individual notes have been widened by an octave. This process of enlarging intervals is repeated with the chords in mm. 18–19, which are widened by an octave in mm. 19–20.

The chords in mm. 22–23 are arranged in quartal voicings. The sound of harmonies built on fourths in the register around middle C is further explored in the D section. These chords are repeated an octave lower in mm. 25–26. The vertical models in the A section are shown in Figure 20.
At the start of the B section, the chord in m. 28 and 43 is constructed using all seven pitch classes of pitch collection one. These pitches are voiced as an extended quartal chord. These same seven pitch classes are voiced as clusters built on seconds in m. 35 and 41. All the pitch classes of pitch collection two are used in the chords in mm. 56–82. In m. 56 and 67 the voicings are relatively open, with intervals of fifths and fourths between notes. In m. 71 through the end of the B section the chords are voiced as clusters. The vertical models used in the B section are shown in Figure 21.
The chords in the first part of the C section, mm. 98–103 and 130–156, are constructed using pitch classes from pitch collection one. Mm. 104–06 are built from the pitch classes of pitch collection two. The chords in mm. 107–129 are constructed from the pitch classes of pitch collection three. For most of the C section, mm 104–124, the chords are voiced as clusters built on seconds. The chords in m. 111 and 124 use all eight pitch classes of pitch collection three. The D section features relatively open-voiced chords with fourths and fifths between the outer and inner voices. As shown in Figure 22, there are seconds, thirds, and fifths between the inner voices.
Figure 22 - C & D Sections Vertical Models
VI. Horizontal Models

Arpeggios

Most of the material presented in the piece unfolds slowly in stepwise motion, so it is noticeable when the material moves by skips relatively quickly. The D Section features an ostinato constructed from pitch collection one, presented as an arpeggio in thirds. This arpeggio occurs in different note durations throughout the section, and can be seen in the original form in Figure 23.

![Figure 23 - m. 129](image1.png)

Starting in m. 130, this arpeggio is presented along with long sustained note durations. These sustained notes are harmonized using the notes of pitch collection one. To accomplish this, three lower pitches are played with the same duration as the sustained note from the arpeggio. The resulting chords are juxtaposed against the original arpeggio. Figure 24 shows a reduction of the chords.

![Figure 24 - mm. 130–142](image2.png)
The pianist plays a varied version of this chordal material in mm. 145–156. The material is developed through the use of repeating notes, repeating phrases, and staggering the entrances of chord tones. These techniques are used to vary the original presentation of the material to create contrast. The piano version of the material is shown in Figure 25. The staggered entrances outline a minor triad in mm. 145–147 with the notes B, D, and F sharp. This minor triad motif is presented earlier using *Klangfarbenmelodie* in the C section, as seen in Figure 26.

![Figure 25 - mm. 145–156](image-url)
In the Coda section, the ostinati include the pitches from pitch collections two and three. The first three measures feature ostinati constructed using pitches from collection two, but from m. 160 to the end of the piece, all the material is constructed from the pitches from collection three. The pitches in each pitch collection are shown again in Figure 27. The ostinati in the Coda section alternate between a line based on skips, to melodic fragments in stepwise motion.

Glissandi as a Horizontal Model

The main motif and horizontal model in this piece is the string glissando. The glissandi can be heard in different combinations with varied durations, ranges, and directions throughout the work. The glissandi range in duration from half of a beat, (Figure 28), to eight beats, (Figure 29). The glissandi span a minor second (Figure 30)
to a major thirteenth, **(Figure 31)**. The general trend is for the span and duration of these *glissandi* to gradually become longer and wider as the piece progresses, although there are exceptions, and this is just a general trend.

**Figure 28** - mm. 48–49 – half of a beat glissando

**Figure 29** - mm. 176–178 – eight-beat glissando

**Figure 30** - mm. 1–2 – half-step glissando

**Figure 31** - mm. 92–94 - Major 13th glissando

*Glissandi Durations*

The *glissandi* in the A section vary from one beat (mm. 1–2, 4–5), to three beats (mm. 7-8, 22–23). The longest *glissando* in the B section is eight beats heard in mm. 89–90, and 90–91. The shortest *glissando* in the piece occurs in the B section in m. 48, and lasts for half of a beat. The trend of the *glissando* durations in the C section is for the
durations to get shorter. There is an eight-beat glissando in m. 97, and the section ends with a one-beat glissando in m. 125, 126, and 127. The trend of the glissando durations in the Coda section is for the durations to become longer, leading to the ending with an eight-beat glissando in mm. 176–178. The range of glissandi durations for each section is shown in Figure 32.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Coda</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 3 Beats</td>
<td>0.5 – 8 Beats</td>
<td>1 – 8 Beats</td>
<td>No Glissandi</td>
<td>4 – 8 Beats</td>
</tr>
</tbody>
</table>

Figure 32 - Glissandi Durations

Glissandi Range

The general trend for the range of the glissandi is to become larger as the piece progresses. The ranges for the glissandi in each section can be seen in Figure 33. All glissandi in the A section are only a major or minor-second. The first glissandi have ranges of a minor second, in mm. 1–2, 4–5, and 7–8. The glissandi in mm. 10–11 and 12–13 have a range of a major-second. This trend continues in the B section, starting with a glissando with a range of a minor third in m. 40, and continuing to a glissando of a major thirteenth in mm. 90–92. The glissando of a major thirteenth is a harmonic glissando, and the major-thirteenth interval serves as a target note for the performer. Although the resulting audible pitch will vary from performance to performance, the resulting gesture will similarly be a glissando of harmonics with a wide range.

The glissandi in the C section differ from those in previous sections. In sections A and B, the individual pitches of the chords glissando to the notes of the next chord
simultaneously. In the C section, multiple *glissandi* start simultaneously in unison and *glissando* to different target notes, with different ranges, directions, and speeds. This is very much influenced by Penderecki’s *Threnody to the Victims of Hiroshima*. In some of these *glissandi*, the performers are instructed to *glissando* away from and then return to the original note. In contrast, there is frequently one instrumentalist retaining the original note, as a source of tension while the other voices move away. These diverging *glissandi* happen at different pitch levels simultaneously. In the C section, the trend of the *glissandi* ranges is a reversal of the overall trend of the piece, starting with the range of a major sixth in m. 97 and ending with the range of a minor second in m. 126 and 127. The *glissandi* in the Coda range from a minor-sixth in mm. 174–175, ending in an octave in the final two measures.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Coda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor 2\textsuperscript{nd} – Major 2\textsuperscript{nd}</td>
<td>Minor 3\textsuperscript{rd} – Octave</td>
<td>Minor 2\textsuperscript{nd} – Major 13\textsuperscript{th}</td>
<td>No <em>Glissandi</em></td>
<td>Minor 6\textsuperscript{th} – Octave</td>
</tr>
</tbody>
</table>

*Figure 33 - Glissandi Range*
VII. Conclusion

*Brown Eyes, Black Magic* is my first orchestral composition. I believe that lessons and compositional techniques developed while writing it will be instrumental in finding my compositional voice. During my time at FIU, I learned much from studying with Dr. Garcia. He helped me to develop my interests into a useful skill set. Specifically, he helped me to get the most out of my musical material. He also helped me to use the compositional tools I already possess to write longer pieces. Prior to this work, my pieces had a tendency to feature more material than necessary. Instead of fully developing material, I tended to write new ideas before fully exploring previous material. This piece marks an improvement in compositional economy and cohesion. From working on the thesis specifically, I learned how to take a foundational idea or piece of musical material, and spend time developing it into a much more attractive or interesting work. I know that this revisionary process will be invaluable going forward.
References


