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A RHYTHMIC ANALYSIS OF MICHAEL TORKE: THREE COLORS AND
PRIMARY, SECONDARY, TERTIARY: AN ORIGINAL WORK FOR SYMPHONIC
BAND

By

AARON E. FAST, Bachelor of Music

Presented to the Faculty of the Graduate School of

Stephen F. Austin State University

In Partial Fulfillment

Of the Requirements

For the Degree of

Master of Music

STEPHEN F. AUSTIN STATE UNIVERSITY

May, 2021

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ABSTRACT

This thesis analyzes three early Michael Torke “color” pieces, *Ecstatic Orange*, *Bright Blue Music*, and *The Yellow Pages*. This analysis provides insight into the compositional process of his early works, which continues to define his style today. Torke’s techniques include rhythmic motives and their variations, rhythmic canon, sectioning as the basis of form, and stratification. This thesis also provides an analytical notational device when defining a Rhythmic Canon Sequence or a Rhythmic Entrance Series. Through this analysis I demonstrate that all three pieces share these compositional techniques but are displayed in three very different pieces. I also explore the phenomenon of the golden section in each of the three pieces and describe the formal and aesthetic significance of the moments in all three pieces. In addition to this analysis, this thesis includes an original piece for symphonic band based upon the findings of my research, entitled *Primary, Secondary, Tertiary*. The title comes from different types of colors and is a tribute to Torke’s color titles. The analysis of my own work parallels the criteria applied to the Torke works.

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CHAPTER 1 – RHYTHMIC MOTIVE AND CANON

Michael Torke (1961) is an American post-minimalist composer who has become an important and popular artist over the past thirty years. Expanding upon the efforts of the early minimalist composers, Torke created a unique sound incorporating both jazz and pop music influences. Los Angeles Times music critic Mark Swed writes “Torke practically defined post-minimalism, a music in which eclectic young composers utilize the repetitive structures of a previous generation to incorporate musical techniques from both the classical tradition and contemporary pop world.”¹ Torke’s influences of jazz and pop music have appealed to modern listeners and his compositions represent a dynamic and exciting blending of several styles. In his book *Composition in the Digital World: Conversations with 21st Century American Composers*, Robert Raines introduces Torke with “His music is smart and fresh, with a vivid palette and robust sense of rhythm supported by his exceptional gift for compositional imaginations and orchestration.”²

Michael Torke has adopted the techniques developed by the early minimalist composers and developed them into his own distinctive musical language. According to

¹ Mark Swed, “Press.” Michael Torke. Accessed October 10, 2020. <https://www.michaeltorke.com/press>.

² Robert Raines, *Composition in the Digital World: Conversations with 21st Century American Composers* (Oxford: Oxford University Press, 2015), 78.

Timothy Peck “Unlike early minimalism, which typically features hypnotic repetitions and slowly-based changes, post-minimalism music normally features more rapid changes in style, less repetition of musical ideas, and the simultaneous use of multiple processes.”³ Torke’s development of motive and rhythmic canon, as well as his blocking of form and stratification are all factors in his compositional style. These techniques are featured in the pieces *Ecstatic Orange* (1985), *The Yellow Pages* (1985), and *Bright Blue Music* (1985). One commonality is the underlying continuity of the 16th note. By reducing the beat to this level, the pieces all have a continuous motion and prevent stagnation in movement.

The first part of this chapter focuses on the rhythmic motive and variation Torke uses in all three pieces. With the use of additive and subtractive processes, offsetting motives, and manipulation of the motive through variation, Torke creates movement and textural differences throughout his pieces. The second part of this chapter focuses on movement and texture created through rhythmic canon and rhythmic entrances. With this I have created a system to quantize these canons and entrances that streamlines labeling in identification. The techniques analyzed in this chapter form the foundation of the compositional stylings of Michael Torke in these three pieces.

³ Timothy Peck, *Analyzing the Music of Living Composers (and Others)*, (Newcastle-upon-Tyne: Cambridge Scholars Publishing, 2013), 5.

Ecstatic Orange Rhythmic Motives

The principle rhythmic motive in *Ecstatic Orange* is based upon the 16th note and Torke establishes this in the first measure with a tutti rhythmic figure. The primary motive is expressed by the first violins in the second measure and is repeated throughout the orchestra often in the piece.

The image displays a page of a musical score for the piece *Ecstatic Orange*, specifically the first measure (m.1). The score is arranged in two systems. The left system includes staves for Piccolo, Flute (1 and 2), Oboe (1 and 2), Clarinet (1 and 2, in B \flat), Bassoon (1 and 2), Horn (1, 2, 3, 4, in F), Trumpet (1 and 2, in D and B \flat), Trombone (1 and 2), and Tuba. The right system includes Percussion (1, 2, 3), Piano, Timpani, Violin I (div. a2), Violin II (div. a2), Viola (div. a2), Cello (div. a2), and Contrabass. The score is marked with a dynamic of *ff* (fortissimo) and a tempo of $\text{♩} = 112$. The time signature is 2/4. The percussion part includes instructions for Tam tam, Glockenspiel, and Wood-blocks. The string parts are marked with *ff* and *div. a2* (divisi a 2). The woodwind parts also feature the rhythmic motive. The score is presented in a clear, professional layout with standard musical notation.

Musical Example 1: *Ecstatic Orange* m.1 (Spilt Score)

One variation to the primary motive is the additive or subtractive process. Gregg Wramage writes, “A contrapuntal texture combines with a textural additive process, a technique in which the individual voices are gradually introduced until the entire texture is complete, a common texture in the work.”⁴ The additive process is first performed with an inversion of the 16th-16th-8th figure in the strings in mm. 17-18. Additionally, the subtractive process is found in the woodwinds at m. 19 with the omission of the second set of 16th-8th-note figures.

⁴ Gregg Wramage. “Compositional techniques in Michael Torke’s ‘*Ecstatic Orange*’ [and] ‘*in shadows, in silence*’ for chamber ensemble.” (DMA diss., The City University of New York, New York, 2006), 58, ProQuest Dissertations & Theses Global.

Musical score for strings (Vn. I, Vn. II, Vla., Vc., Cb.) showing a rhythmic motif. The score includes markings for 'div.' (divisi) and 'ff' (fortissimo). The Vn. I part starts with a 'div.' marking. The Vn. II part has 'ff' markings. The Vla. part has 'ff' and 'non div.' markings. The Vc. part has 'ff' and 'div.' markings. The Cb. part has 'ff' and 'div.' markings.

Musical score for woodwinds (Picc., Fl. 1 & 2, Ob. 1 & 2, Clar. 1 & 2, Bsn. 1 & 2) starting at measure 19. The score includes markings for 'ff' (fortissimo) and 'div.' (divisi). The Picc. part has a 'ff' marking. The Fl. 1 & 2 parts have 'ff' markings. The Ob. 1 & 2 parts have 'ff' markings. The Clar. 1 & 2 parts have 'ff' markings. The Bsn. 1 & 2 parts have 'ff' markings.

Musical Example 2: Motive variations in *Ecstatic Orange*

A fragment of the primary motive, comprising of two 16th notes and an 8th note is highlighted across the strings at m. 114. The figure appears on beats two and three and moves through the strings. This shows the subtractive process with the omission of the initial 8th note on the downbeat.

mus la fora

115

Vn. I (div. a2)

Vn. II (div. a2)

Vla. (div. a2)

Vc. (div. a2)

Cb.

arco

The image shows a musical score for measures 114 and 115. The score is for five instruments: Vn. I (div. a2), Vn. II (div. a2), Vla. (div. a2), Vc. (div. a2), and Cb. The key signature is one sharp (F#) and the time signature is 2/4. The tempo/mood is marked 'mus la fora'. A fragmented primary motive is highlighted with boxes in measures 114 and 115 across all instruments. The Vn. I part has a dynamic marking of 'ff' and a 'pizz' instruction. The Cb. part has an 'arco' instruction.

Vn. I (div. a2)

Vn. II (div. a2)

Vla. (div. a2)

Vc. (div. a2)

Cb.

The image shows a musical score for measures 110 through 120. The score is for five instruments: Vn. I (div. a2), Vn. II (div. a2), Vla. (div. a2), Vc. (div. a2), and Cb. The key signature is one sharp (F#) and the time signature is 2/4. The tempo/mood is marked 'mus la fora'. A fragmented primary motive is highlighted with boxes in measures 114 and 115 across all instruments. The Vn. I part has a dynamic marking of 'ff' and a 'pizz' instruction. The Cb. part has an 'arco' instruction.

Musical Example 3: Fragmented primary motive at m. 114 of *Ecstatic Orange*

Offsetting of the rhythmic figure is another technique Torke uses. The primary motive is established and begins on the downbeat. Torke places the primary motive on a

beat other than the downbeat to create the offsetting effect. In musical example 4 the violins play the motive at m. 30 and in m. 31 the motive is played again, however it begins on the second beat as opposed to the downbeat previously.



Musical Example 4: Offsetting of the rhythmic motive in m. 30 *Ecstatic Orange*

The nature of Torke's music is transitional, meaning his music changes texture and intensity often. In *Ecstatic Orange* each transition is named for a different shade of the color orange. Chart 1 shows the name and measure number of each section. The opening rhythmic figure of four 16th notes plays an important transitional role throughout the piece and appears in various forms. Torke uses the four- 16th tutti rhythmic figure as a transitional device moving through each "shade." The rhythm at m. 187 presents a departure from other figures in that it does not feature a 16th note subdivision of the beat in the score. Musical Example 5 shows the unison figure, which is an augmentation of the prominent note values of the piece. This figure is repeated again in the trumpets and first horn, but it gradually adds the 16th note subdivision in other voices.

Section Name	Measure Number
...Squeeze the Orange and Peel Away the Skin...	1
Orange with Damsons	19
Russet	29
Carroty	51
Sunkist!	65
Orange Pekoe in Flames	82
Absinthe and Apricot	98
Terra Cotta	114
Carotene, Changing to Vitamin A	122
Orange Lava	138
Accutane for Perfect Beige	150
Titian (Wet Hair)	166
Beth's Canon (Ochre)	178
Mineral and Ore Range	188
Unripe Pumpkin	203
Helianthin on Silk	211
The Orange Sun Kissed	231
Aren't You and Orange Ewe?	239
Copper	253
First Orange	255
Tumultuous 1	267
Second Orange	269
Tumultuous 2	285
Third Orange	287
Tumultuous 3	310

Chart 1: Section Names and Measure Numbers in *Ecstatic Orange*

The image shows a musical score for four Horns (Hn. (in F) 4) and three Trumpets (Trb. 1, 2, 3). The score covers measures 187 to 190. The tempo is marked 'Seperated marc. e giusto'. The music features a complex rhythmic pattern with dynamic markings such as p, f, and sfz.

Musical Example 5: *Ecstatic Orange* Rhythmic figure at m. 187

The Yellow Pages Rhythmic Motives

The Yellow Pages features many examples of rhythmic motives and Torke's manipulation of the rhythms to attain movement and texture. It begins with four distinct rhythmic motives between the woodwinds, violin, cello, and piano. Each motive contains some derivative of a 16th note-8th-note relationship. Timothy Johnson writes in his article, "*The Yellow Pages* combines syncopated rhythms with a continuous form, a bright texture comprising interlocking rhythmic patterns, and a repetitive rhythmic scheme."⁵ The upper voices begin their motives an 8th-note duration off either beat one or three, whereas, the cello and piano begin each of their respective motives on the downbeat. Musical example 6 shows the different motives in the score.

⁵ Timothy A. Johnson. "Minimalism: Aesthetic, Style, or Technique?" *The Musical Quarterly* 78, no. 4 (Winter): 766.

Musical Example 6: Four distinct opening rhythmic motives in *The Yellow Pages*

This juxtaposition of starting points creates natural motion in the piece. Each motive lasts either one measure or the equivalent of four beats across the barline. The violin motive, however, is spread across eight beats. “The upper voices repeat their fragmented melodic patterns every two measures and interlock with the cello and piano.”⁶ Counting each 16th-note value for notes and rest throughout the phrase reveals four beats displaced by a value of an 8th note from the downbeat. The motives of both the flute and clarinet also reveal four beats, but are displaced by the value of an 8th note from beat three in mm. 4-6.

⁶ Timothy A. Johnson, “Minimalism: Aesthetic, Style, or Technique?” *The Musical Quarterly* 78, no. 4 (Winter): 766.

The image shows a musical score for five instruments: Flute (Piccolo), Clarinet*, Violin, Cello, and Piano. The score is divided into three measures. The Flute and Clarinet parts show a rhythmic variation with notes added before and after the original motive. The Violin part shows a subtractive process where notes are removed over time. The Piano part provides harmonic support with chords and a steady bass line.

Musical Example 7: *The Yellow Pages* mm. 4-6

Rhythmic variation plays an important part of *The Yellow Pages*. To illustrate this technique, four examples are provided below. In m. 12 Torke introduces the first rhythmic variations with the flute and clarinet adding notes before and after the original motive. The addition of these notes (four 8^{ths} and three 16^{ths}) coincides with a significant harmonic shift in the music, allowing both to reinforce one another. Along with the newly established additive rhythm in the flutes and clarinets, Torke also uses a subtractive process in the violin. Beginning with the removal of 16th-notes in mm. 17-18, the process continues until all notes have been eliminated by m. 23.



Musical Example 8: *The Yellow Pages* Violin mm. 15-18 Showing Subtractive Process

Musical score for measures 23 of *The Yellow Pages*. The score is arranged in a system with five staves. From top to bottom, the staves are labeled: Flute (Piccolo), Clarinet*, Violin, Cello, and Piano. The Flute and Clarinet parts are in treble clef, while the Cello and Piano parts are in bass clef. The Violin staff is empty. The music features complex rhythmic patterns with many sixteenth and thirty-second notes. The Piano part provides harmonic support with chords and single notes.

Musical Example 9: *The Yellow Pages* m. 23

In another example, the rhythmic variation of the flute and clarinet begin to shift again with the movement of the 8th note between beat two and the “and” of one. This shifting leads to consistent 16th notes with a tied note anticipating beat four. Another

variation of the original piano motive occurs in the top voices after a switch of the constant 16th-note variation from the flute to the piano at m. 39 (see Musical Example 10). Johnson states, “This compositional scheme produces a playful interchange of short outbursts from each instrument over a smooth line in the piano, a procedure reminiscent of the compositional procedures of the minimalist style.”⁷ The flute assumes the treble clef piano motive and the clarinet and violin play the same motive displaced by two beats and one beat respectively. This leads to a shift of the pulse off of each beat and is evident

The image shows a musical score for five instruments: Flute (Piccolo), Clarinet, Violin, Cello, and Piano. The score is for measures 37 through 40. The piano part is at the bottom, and the other instruments are above it. A black arrow points from the piano's treble clef staff in measure 39 to the flute's staff in measure 40, indicating the transfer of the 16th-note variation. Several measures in the upper staves are highlighted with grey boxes.

Musical Example 10: *The Yellow Pages* mm. 39-40

⁷ Timothy A. Johnson, “Minimalism: Aesthetic, Style, or Technique?” *The Musical Quarterly* 78, no. 4 (Winter): 767.

in all voices and the subtle rhythmic change in the piano in m.45. The offbeat variation is restated again in the piano alone in m. 55, however the figure alternates between the offbeats and on the beat.

The image shows a musical score for two measures, m. 45 and m. 55, from 'The Yellow Pages'. The score is arranged in two systems. The first system (m. 45) features five staves: Flute (Piccolo), Clarinet, Violin, Cello, and Piano. The Flute, Clarinet, Violin, and Cello parts are marked 'pizz.' and 'mp'. The Piano part is marked 'sim.'. The second system (m. 55) features five staves: Flute (Piccolo), Clarinet, Violin, Cello, and Piano. The Flute, Clarinet, Violin, and Cello parts are marked 'arco' and 'mp'. The Piano part is marked 'mp'.

Musical Example 11: *The Yellow Pages* m. 45 and 55

Bright Blue Music Rhythmic Motives

Rhythmic motive and variation is evident in *Bright Blue Music* as it was in the previous pieces. The rhythmic motive in *Bright Blue Music* is established in the first

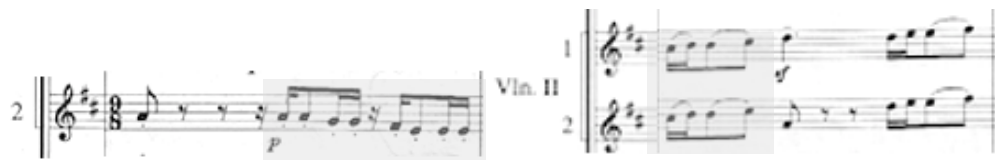
measure (see Musical Example 12). The figure of a 16th note and 8th notes off of the beat is the basis of motion throughout the entire piece. The variations of the original motive include the addition of 16th notes to divide the 8th notes in the figure. The first variation of the original motive occurs in the second clarinets on the second beat of m. 3 and involves the division of the last 8th note of the figure. The next variation begins in the strings at m. 11 with the addition of a 16th note at the beginning

The image shows a musical score for the first violins of 'Bright Blue Music', measure 1. The tempo is marked 'Animato' with a quarter note equal to 66 (♩. = 66). The score consists of two staves, labeled '1' and '2'. Both staves are marked 'non div.' and 'f'. The music is in 3/8 time and features a rhythmic figure of a 16th note followed by two 8th notes. The first staff (1) starts with a quarter rest followed by the 16th-8th-8th figure. The second staff (2) starts with a quarter note followed by the 16th-8th-8th figure. The key signature has one sharp (F#).

Musical Example 12: *Bright Blue Music* m. 1 violins

of the figure in the second violins. This causes the figure to begin on the beat and is juxtaposed by the first variation in the upper woodwinds and horns in m. 13. This measure also introduces another variation of the motive in lower woodwinds with two 16th notes divide the first 8th note. The violins and viola introduce a fourth variation in m.

14 of six 16th notes across the entire beat. All four variations lead to the statement of the melody in m.16. All of these examples are featured in Musical Example 13 below.



m. 3

m.11



m. 13



Musical Example 13: *Bright Blue Music* mm. 3,11,13,14-15 Showing Variation of the

Original Motive

The melody at m. 14, is based upon the rhythmic motive with a quintuplet dividing the second 8th note. The percussion and piano have a subtractive variation of the motive made by removing the second 8th-note.

The image displays a musical score for Musical Example 14, starting at measure 14. The score is divided into two main sections. The upper section features woodwind instruments: Piccolo (Piccs.), Flute (Fl.), Oboe (Obs.), and Clarinet (Cls.), each with two staves. All woodwind parts play a melodic line marked with a forte (*ff*) dynamic. The lower section features Percussion (Perc.) and Piano. The Percussion part includes four staves: Brake Drums (brass mallets), two snare drums (labeled 's'), and Tubular bells. The Piano part consists of two staves. The Percussion and Piano parts play a rhythmic accompaniment, also marked with a forte (*ff*) dynamic. The score illustrates a subtractive variation in the percussion and piano parts, where the rhythmic accompaniment becomes sparser over time.

Musical Example 14: Melody in woodwinds and subtractive variation in percussion and piano

Musical Example 15 shows the horns and trumpets at mm. 38-40 featuring a variation spread across the parts. The variations use a subtractive technique removing an 8th note from the original motive. This is highlighted at 1 with the original motive in the first trumpet and horn with subsequent shortening of the motive in the attacks of the remaining trumpets and horns. In the same example, 2 shows 16th rests intermittently dispersed in the parts, however each 16th note is articulated in the measure by one of the parts through the duration of the passage.

The image displays two musical examples, labeled 1 and 2, for trumpet and horn parts. Example 1 shows a sequence of six staves. The top two staves (trumpet and horn) play a rhythmic motive. The bottom four staves show variations where the motive is shortened or altered. Example 2 shows a sequence of six staves. The top three staves (trumpet and horn) play a rhythmic motive with 16th rests interspersed. The bottom three staves show variations where the 16th note is articulated by one of the parts.

Musical Example 15: *Bright Blue Music* Trumpet and Horns mm 38-40

This same technique of dividing the beat between parts occurs again between the violins and violas in m.59. In this instance the 16th note is divided into successive 32nd notes with the duration of an 8th rest between each iteration. The iterations are switched

between the violins and violas creating a measure and a half of continuous 32nd notes between the two parts.

The image shows a musical score for Violin I (Vln. I 2) and Viola (Vla.). The Violin I part is written in treble clef with a key signature of one sharp (F#) and a 2/4 time signature. The Viola part is written in bass clef with the same key signature and time signature. Both parts feature a complex rhythmic pattern of continuous 32nd notes, creating a dense texture. The score is divided into two measures by a vertical bar line.

Musical Example 16: *Bright Blue Music* mm. 59-60

Ecstatic Orange Rhythmic Canon Sequence and Rhythmic Entrance Series

Rhythmic canon in *Ecstatic Orange* is largely based upon a 1-2-4-8 proportion, a canonic technique introduced to Torke at Eastman School of Music by Dr. Robert Morris.⁸ In his dissertation Wramage states, “The last three numbers of the proportion represent points of canonic imitation, expressed in the number of either 16th notes, quarter notes, or complete measures of 4/4 time, by which each of the final three canonic entries are delayed.”⁹ In the case of 16th notes this means the first attack begins on the first 16th note, the second on the second 16th note, third on the fourth 16th and fourth on the eighth

⁸ Michael Torke, Interview by author, Selinsgrove, November 5, 2020.

⁹ Gregg Wramage, “Compositional techniques in Michael Torke’s ‘*Ecstatic Orange*’ [and] ‘*in shadows, in silence*’ for chamber ensemble.” (DMA diss., The City University of New York, New York, 2006), ProQuest Dissertations & Theses Global.

16th note. Chart 1 illustrates the concept with the numbers representing the 16th notes in a measure of 4/4 and each darkened section the initial note of the phrase. For clarity, this proportion will be expressed as a “Rhythmic Canonic Sequence” (RCS) with the qualifying division of beat in parentheses. For example, the graphic represented in

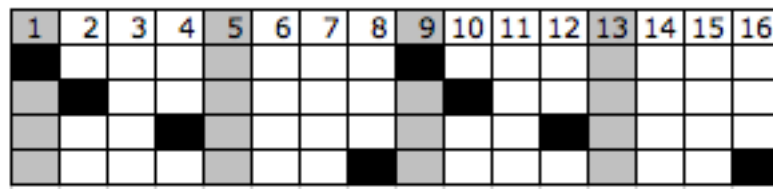


Chart 2: Visual Representation of 1-2-4-8 proportion

Chart 1 could be expressed as RCS(16) of 1-2-4-8 with the ratio doubled in duration for each attack. Musical example 17 shows the RCS(16) of 1-2-4-8 in the trombones and tuba as well as the horns starting upon the second beat of m. 84. Torke confirmed this method in a personal interview for this thesis and revealed another technique closely connected to the RCS concept.¹⁰ This technique is built upon staggered entrances. These entrances are also mathematically related and can be similarly defined as a Rhythmic Entrance Series (RES). Musical Example 18 demonstrates a RES(16) of 1-2-4-6 in the woodwinds and brass with the numbers in the example designating the attack of the 16th note.

¹⁰ Michael Torke, Interview by author, Selinsgrove, November 5, 2020.

The image displays a musical score for Musical Example 17, featuring a 1-2-4-8 rhythmic pattern. The score is organized into four systems of staves:

- System 1 (Horns):** Four staves for Horns (in F), numbered 1 through 4. The first measure of each staff contains a boxed-in rhythmic pattern. Above the first staff, the number '1' is written. Above the second staff, the number '2' is written. Above the third staff, the number '4' is written. Above the fourth staff, the number '8' is written.
- System 2 (Trumpets):** Two staves for Trumpets, one in D (top) and one in B \flat (bottom). Both staves are empty.
- System 3 (Trombones):** Three staves for Trombones, numbered 1 through 3. The first measure of each staff contains a boxed-in rhythmic pattern. Above the first staff, the number '1' is written. Above the second staff, the number '2' is written. Above the third staff, the number '4' is written.
- System 4 (Tuba):** One staff for the Tuba. The first measure contains a boxed-in rhythmic pattern. Above the staff, the number '8' is written.

The rhythmic pattern in each box consists of a quarter note followed by an eighth note, then a quarter note, and finally a quarter note with a dotted eighth note.

Musical Example 17: RCS (16) 1-2-4-8 at mm. 84-85

Musical score for measures 9 and 10 of "Ecstatic Orange". The score includes parts for Piccolo, Flutes (1 and 2), Oboes (1 and 2), Clarinets (1 and 2, in Bb), Bassoons (1 and 2), Horns (3 and 4, in F), Trumpets (in D), Trumpets (1 and 2, in Bb), Trombones (1 and 2), Percussion (Xyl., Vibes, Mar.), and Piano.

Vertical bars highlight rhythmic patterns in the woodwind parts:

- Flutes 1 and 2: Measures 9 and 10, with a bar at measure 9 labeled "2".
- Oboes 1 and 2: Measures 9 and 10, with bars at measures 9 and 10 labeled "1" and "4".
- Clarinet 1: Measures 9 and 10, with a bar at measure 9 labeled "1".
- Clarinet 2: Measures 9 and 10, with a bar at measure 9 labeled "4".
- Bassoon 1: Measures 9 and 10, with a bar at measure 9 labeled "1".
- Bassoon 2: Measures 9 and 10, with a bar at measure 9 labeled "4".
- Horn 3: Measures 9 and 10, with bars at measures 9 and 10 labeled "4" and "6".
- Horn 4: Measures 9 and 10, with bars at measures 9 and 10 labeled "4" and "6".
- Trumpet 1: Measures 9 and 10, with a bar at measure 9 labeled "6".
- Trumpet 2: Measures 9 and 10, with a bar at measure 9 labeled "6".
- Trombone 1: Measures 9 and 10, with a bar at measure 9 labeled "6".
- Trombone 2: Measures 9 and 10, with a bar at measure 9 labeled "6".
- Xylophone: Measures 9 and 10, with a bar at measure 9 labeled "1".
- Vibes: Measures 9 and 10, with a bar at measure 9 labeled "1".
- Maracas: Measures 9 and 10, with a bar at measure 9 labeled "1".
- Piano: Measures 9 and 10, with a bar at measure 9 labeled "1".

Dynamics include *p poco e poco cresc.* for the woodwinds and brass.

Musical Example 18: *Ecstatic Orange* mm. 9-10 showing RES(16) 1-2-4-6

The Yellow Pages Rhythmic Canon and Rhythmic Entrance

The Yellow Pages features rhythmic canon in a different approach compared to *Ecstatic Orange* however, Torke does employ RCS(16) 1-2-4-8 in this piece as well. The following three examples show how the RCS differs from previous examples and one example shows similarity. Musical Example 19 shows the rhythmic entrance occurring in the upper parts of the score and using the same method, the attacks are based upon an RES(16) 1-6-7-11 with a ratio of 1-5-1-4. The attacks are proportionally based upon the duration of one 16th to four 16^{ths} and repeated for the second half of the RCS. This process occurs in the clarinet, violin, and cello is repeated over the course of two measures, however the attack in the flute is performed on every measure. A second instance of rhythmic canon occurs in Musical Example 20 at m. 119 based upon an RES(16) of 1-2-3-5 constant 16th notes in the flute.

The image displays a musical score for a piece titled "The Yellow Pages". The score is arranged in two systems. The first system consists of four staves: three individual staves (treble, middle, and bass clefs) and a grand staff (treble and bass clefs). The second system consists of a grand staff. The first system is marked with the measure number 95 at the beginning. The first staff of the first system has a dynamic marking of *mp* and a fingering of 11. The second staff has a fingering of 6. The third staff has a fingering of 1. The fourth staff has a fingering of 7. The second system begins with a dynamic marking of *mp* and a *rit.* marking. The score includes various musical notations such as notes, rests, and slurs.

Musical Example 19: *The Yellow Pages* RES(16) 1-6-7-11 mm. 95-98

The image shows a musical score for 'The Yellow Pages' at measure 119. It features five staves. The top staff is a treble clef with a forte (*f*) dynamic and a complex melodic line. The second staff is a treble clef with a mezzo-piano (*mp*) dynamic, containing a boxed note labeled '5'. The third staff is a treble clef with a mezzo-piano (*mp*) dynamic, containing a boxed note labeled '3'. The fourth staff is a treble clef with a mezzo-piano (*mp*) dynamic, containing a boxed note labeled '2'. The fifth staff is a grand staff (treble and bass clefs) with a mezzo-piano (*mp*) dynamic, containing a boxed note labeled '1'. The notes 1, 2, 3, and 5 are part of a sequence of notes in the piano part.

Musical Example 20: *The Yellow Pages* RES(16) 1-2-3-5 at m. 119

A familiar variation occurs in Musical Example 21 at m. 127 with the upper voices performing an RCS(16) of 1-2-4-8 over the consistent run of 16ths in the piano. The canon is rhythmically repeated until m. 135 where the “flute and piano” pattern is the basis of a tutti rhythmic canon culminating in a 16th-note tutti figure at m. 143, as is shown in Musical Example 22.

Flute (Piccolo) 1

Clarinet 2

Violin 4 senza sord.

Cello 8 senza sord.

Piano

Musical Example 21: *The Yellow Pages* RCS(16) 1-2-4-8 mm. 127-128

The image shows a musical score for five instruments: Flute (Piccolo), Clarinet, Violin, Cello, and Piano. The score is divided into three measures, numbered 141, 142, and 143. Measure 141 begins with a piano (*p*) dynamic and the instruction *poco a poco cresc.*. Measures 142 and 143 are marked with a forte (*ff*) dynamic and the instruction *molto marc.*. The Flute part has a melodic line with some rests. The Clarinet, Violin, and Cello parts have rhythmic patterns. The Piano part provides harmonic support with chords and moving lines.

Musical Example 22: *The Yellow Pages* m.135 and mm. 141-143

Bright Blue Music Rhythmic Canon and Rhythmic Entrance

Bright Blue Music has a few different uses of rhythmic canon and entrance. The first rhythmic entrance creates a building effect and is seen in Musical Example 23 at m. 55 in the strings with an RES(16) of 1-5-11-24. The rhythmic figure begins in the cellos and is repeated with the addition of other strings on successive beats. Musical Example 24 shows a similar technique in the brass starting at m. 66, with an RES(16) of 1-7. The rhythmic figure begins in the horns and is distributed through the trombones and moves through each instrument.

Musical score for Vln. I, Vln. II, Vla., Vcl., and Cbs. The score is in 3/4 time and features a dynamic crescendo from *mf* to *f*. Performance instructions include "off the string" for the upper strings and "cresc." for the lower strings. Measure numbers 1, 5, 11, and 24 are marked.

Vln. I: *f cresc.* off the string
 Vln. II: *mf cresc.* *f (cresc.)* off the string
 Vla.: *mf* *cresc.* *f (cresc.)* off the string
 Vcl.: *(cresc.)* *f (cresc.)* off the string
 Cbs.:

Musical Example 23: *Bright Blue Music* mm. 55-56 RES(16) 1-5-11-24

1
Hns. 2
3
1
Tpts. 2
3
1
Tbns. 2
3
Tuba

1
2
Hns. (a2)
3
4
1
Tpts. 2
3
1
Tbns. 2
3
Tuba

Musical Example 24: *Bright Blue Music* mm. 65-68 RES(16) 1-7

Another attack-based canon, with an RCS(16) of 7 is found at m. 144 in the upper woodwinds. Musical Example 25 features a variation of the motive interspersed on the beat across the woodwinds. In a unique example, Torke employs a staggered rhythmic entrance at m. 119 with an RES(16) 1-7 and is based upon the attack of every instrument in the orchestra through the first seven 16^{ths}. Finally, musical Example 26 shows each attack in the orchestra with the number designating the number of 16^{ths} durations. A final variation occurs at mm. 189-192 (Musical Example 27) in the woodwinds. Here Torke uses an RES(16) of 1-2-6-10-14 or a ratio of 1-4-4-4 for each attack.

The image shows a musical score for Musical Example 25, spanning measures 144 to 146. The score includes parts for Piccolo (Picc.), Flute (Fls.), Oboe (Obs.), Clarinet (Cls.), and Bassoon (Bsns.). The woodwind parts feature staggered rhythmic entrances of a motive, highlighted by black boxes. The Piccolo part enters at the beginning of measure 144. The Flute part enters at the beginning of measure 145. The Oboe part enters at the beginning of measure 146. The Clarinet part enters at the beginning of measure 147. The Bassoon part enters at the beginning of measure 148. The score is in 2/4 time and features a key signature of one flat.

Musical Example 25: *Bright Blue Music* mm. 144-146 RES(16) 1-7

Musical score for *Bright Blue Music*, measure 119. The score is arranged in a vertical system with the following instruments and parts:

- Picc. 1**: Piccolo 1, measure 5 highlighted.
- Fl. 1 2**: Flute 1 and 2, measure 3 highlighted.
- Obs. 1 2**: Oboe 1 and 2, measure 3 highlighted.
- Cl. 1 2**: Clarinet 1 and 2, measure 3 highlighted.
- Bsns. 1 2**: Bassoon 1 and 2, measure 3 highlighted.
- Has. 1 2 3 4**: Horns 1 through 4, measures 1 and 6 highlighted.
- Tpts. 1 2 3**: Trumpets 1 through 3, measures 1 and 2 highlighted.
- Trsn. 1 2 3**: Trombones 1 through 3, measure 3 highlighted.
- Tuba**: Tuba, measure 1 highlighted.
- Perc. 3 4**: Percussion 3 and 4, measures 3 and 7 highlighted.
- Piano**: Piano, measure 7 highlighted.
- Vln. I**: Violin I, measure 4 highlighted.
- Vln. II**: Violin II, measure 6 highlighted.
- Vla.**: Viola, measure 2 highlighted.
- Vcl.**: Violoncello, measure 5 highlighted.
- Cbs.**: Contrabasso, measure 1 highlighted.

Musical Example 26: *Bright Blue Music* m. 119

The image shows a musical score for five woodwind parts: Piccolo (Piccs.), Flute (Fl.), Oboe (Obs.), Clarinet (Cls.), and Bassoon (Bsns.). The score is in 3/8 time and features a consistent 16th-note subdivision. The Piccolo part starts at measure 1 and has a dynamic marking of *pp* *tranquillo*. The Oboe part starts at measure 10 and has a dynamic marking of *pp* *tranquillo*. The Clarinet part starts at measure 6 and has a dynamic marking of *pp* *tranquillo*. The Bassoon part starts at measure 2 and has a dynamic marking of *pp* *tranquillo*. The score includes various musical notations such as slurs, ties, and dynamic markings like *mp* and *a2*.

Musical Example 27: *Bright Blue Music* mm. 189-192

Movement

All three pieces is build movement around a consistent 16th note subdivision. While there are moments of divisions of the beat longer than a 16th note, they are accompanied by the smaller subdivision. This is best displayed in *The Yellow Pages* where sustained notes are complemented by either consistent 16th notes or an iteration of the motive in the other voices. Musical Example 28 shows the long duration of the flute while variations of the motive are played in the other voices.

The image shows a musical score for five instruments: Flute (Piccolo), Clarinet, Violin, Cello, and Piano. The score is for measures 79-81. The Flute (Piccolo) part starts with a measure rest in measure 79, indicated by a large '0' over the staff. The Clarinet, Violin, and Cello parts begin with a *mf* dynamic marking. The Piano part also begins with a *mf* dynamic marking. The score is written in a key signature of one sharp (F#) and a 3/4 time signature. The Flute (Piccolo) part has a long note in measure 80 and a more active line in measure 81. The other instruments play rhythmic patterns throughout the three measures.

Musical Example 28: *The Yellow Pages* mm. 79-81

The formation of the accompaniment shows a moment of rest on the fourth beat of every measure from m. 5 until m. 60. This absence of attack lays the foundation of the pulse found in the piece. While some of the melody plays over the fourth beat indicated, the attack occurs a 16th note prior to beat four and keeps the fourth beat free of attack. Musical Example 29 shows mm. 27-28 and the shaded areas denote beat four and the absence of an attack. As mentioned, an occurrence of an attack on beat four does not take place until m. 60 in the violin during the canonical building. By this point, the pulse of the piece has shifted from the original pulse established earlier.

The image displays a musical score for five instruments: Flute (Piccolo), Clarinet, Violin, Cello, and Piano. The score is written in a single system with five staves. The Flute (Piccolo) part is in the upper register, playing a melodic line with eighth and sixteenth notes. The Clarinet part is in the middle register, playing a similar melodic line. The Violin part is in the lower register, playing a sustained note with a *resc.* marking. The Cello part is in the lower register, playing a melodic line with eighth and sixteenth notes. The Piano part is in the lower register, playing a rhythmic accompaniment with eighth and sixteenth notes. The score is marked with a *resc.* marking and a *rit.* marking. Two vertical lines are drawn through the score, one at the beginning of the second measure and one at the end of the second measure.

Musical Example 29: *The Yellow Pages* mm. 27-28

The image shows a musical score for five instruments: Flute (Piccolo), Clarinet, Violin, Cello, and Piano. The score is divided into two systems. The first system contains the Flute (Piccolo), Clarinet, Violin, and Cello staves. The Flute and Clarinet staves are mostly empty, with a horizontal line indicating they are silent. The Violin and Cello staves show a rhythmic pattern of eighth notes. The second system contains the Piano staff, which plays a complex rhythmic pattern with chords and single notes.

Musical Example 30: *The Yellow Pages* m. 60

Musical Example 31 from *Bright Blue Music* shows a rare moment of sustained notes in the whole string section. The first clarinet plays the 16th notes providing the constant and the first trumpet outlines the beat in m. 92. The second clarinet, vibraphone, and harp play a figure that emphasizes the weak part of the beat giving the passage a

sense of beat ambiguity. The pulse is not lost during this moment due to the constant 16th-note line in the first clarinets.

Ecstatic Orange contains three moments near the end of the piece that could be considered a reprise of the opening four 16th notes of the first measure. Each of these moments (marked “Tumultuous” in the score) contains 16th-note tutti sections and are the only instances of a tutti ensemble. The repetitions of these groupings of four are consecutive 16th-notes and are augmented by a factor of three. “Tumultuous 1” contains three groupings plus three 16^{ths}, “Tumultuous 2” contains six plus two 16^{ths}, and “Tumultuous 3” contains nine plus two repetitions of three 16^{ths}. Furthermore, considering phrasing of the “Tumultuous” sections yields another indicator of the augmentation of the different sections. The first section contains three 16th-notes following the grouping. Considering the 16th-note rest as the group adds up to 16 16th-note durations. “Tumultuous 2” contains six 16th-note groups with a two 16th-note pick up for a total of 26 16th-note durations. Finally, “Tumultuous 3” contains nine consecutive 16th-note groupings for a total of 36. This shows an augmentation of 10 durations of the 16th-note phrase throughout the three moments. Musical Examples 32 and 33 feature all three “Tumultuous” sections.

This chapter focused on Torke’s use of rhythmic motive and variation as the basis for movement and textural difference in these three pieces. It also focused on the use of rhythmic canon and rhythmic entrances as a vehicle for movement. The analysis has shown these techniques were used by Torke in all three pieces and provided a foundation

for his compositional style. Torke's use of blocking and stratification are evident in these pieces as well and will be explored in the next chapter.

This musical score page covers measures 92 to 94 of the piece 'Bright Blue Music'. The score is arranged in a standard orchestral format with the following parts and staves:

- Woodwinds:** Flute 1 (Fl. 1), Flute 2 (Fl. 2), Oboe 1 (Obs. 1), Oboe 2 (Obs. 2), Clarinet 1 (Cl. 1), Clarinet 2 (Cl. 2), Bassoon 1 (Bsn. 1), Bassoon 2 (Bsn. 2), Horn 1 (Hrn. 1), Horn 2 (Hrn. 2), Horn 3 (Hrn. 3), Trumpet 1 (Tpt. 1), Trumpet 2 (Tpt. 2), Trombone 1 (Tbn. 1), Trombone 2 (Tbn. 2).
- Strings:** Violin 1 (Vln. I), Violin 2 (Vln. II), Viola (Via.), Violoncello (Vcl.), and Contrabass (Cb.).
- Piano:** Piano (Piano).
- Harpsichord:** Harp (Harp).

The score includes various musical notations such as notes, rests, and dynamic markings. Key markings include *pp* (pianissimo) and *dim.* (diminuendo). The woodwind and string parts show complex rhythmic patterns and melodic lines, while the piano part remains mostly silent.

Musical Example 31: *Bright Blue Music* mm. 92-94

The image displays a page of a musical score for the piece "Ecstatic Orange," specifically focusing on sections 1 and 2 of the "Tumultuous" movement. The score is arranged in a standard orchestral format with multiple staves for each instrument family. The woodwind section includes Piccolo (Picc.), Flutes (Fl. 1 and 2), Oboes (Ob. 1 and 2), Clarinets (Clar. in Bb, 1 and 2), Bassoons (Bsn. 1 and 2), Horns (Hn. in F, 1, 2, 3, 4), Trumpets (Trpt. in D, 1, 2), Trumpets (Trpt. in Bb, 1, 2), Trombones (Tbn. 1, 2, 3), and Tubas. The percussion section includes Tom-tam, Snare Cymbal (Sn. Cym.), and Wauwau. The string section includes Violins I (Vs. I div. a2), Violins II (Vs. II div. a2), Violas (Vla. div. a2), Violas (Vc. div. a2), and Cellos (Cb.). The score is marked with a tempo of 3/4 and a dynamic of *fff* (fortissimo). The first section, "Tumultuous 1," spans measures 285 to 310, and the second section, "Tumultuous 2," spans measures 310 to 335. The score features complex rhythmic patterns, including sixteenth and thirty-second notes, and rests. The woodwinds and strings play a driving, rhythmic accompaniment, while the brass instruments provide a powerful, melodic counterpoint. The percussion section adds a layer of rhythmic complexity with the tom-tam and wauwau.

Musical Example 32: “Tumultuous” sections 1 and 2 in *Ecstatic Orange*

The image displays a page of a musical score for a symphony, specifically a section titled "310 Tumultuous 3". The score is arranged in a standard orchestral format with multiple staves for each instrument family. The instruments listed on the left side of the page are:

- Picc. (Piccolo)
- Fl. 1 and 2 (Flutes)
- Ob. 1 and 2 (Oboes)
- Clar. (in Bb) 1 and 2 (Clarinets)
- Bon. 1 and 2 (Bassoons)
- Hr. (in F) 1, 2, 3, 4 (Horns)
- Trpt. (in D) 1, 2 (Trumpets)
- Trpt. (in Bb) 1, 2 (Trumpets)
- Tbn. 1, 2, 3 (Trombones)
- Tuba
- Perc. 1, 2, 3 (Percussion)
- Timp. (Timpani)
- Vn. I (div. a2) (Violins I)
- Vn. II (div. a2) (Violins II)
- Vla. (div. a2) (Violas)
- Vc. (div. a2) (Violoncellos)
- Cb. (Double Basses)

The score is written in a complex, rhythmic style with many sixteenth and thirty-second notes, indicating a fast and intense tempo. The key signature is one flat (Bb), and the time signature is 4/4. The section begins with a dynamic marking of *fff* (fortissimo) and continues with various dynamic markings and articulations throughout the piece.

Musical Example 33: "Tumultuous 3"

CHAPTER 2- RHYTHMIC FORMAL STRUCTURE AND STRATIFICATION

Rhythmic formal structure and stratification play an important role in these Michael Torke works. In all three of these pieces, a few compositional techniques recur which help reinforce large-scale structure— namely, motivic sectional blocking and stratification. Motivic blocking is based upon the repetition of motive in large or small sections and was used famously by Igor Stravinsky in *The Rite of Spring*. Peter Hill writes “the prevailing analytic and historical conception of the *Rite* is construction of static blocks.”¹¹ These blocks can stand-alone (“static”) or can be used in variation to create developing features. The delineation of the blocks or sections are determined by change of texture, dynamics, meter, or orchestration. Also identifying the motivic blocking reveals the golden section and its significance in each of the three pieces. The golden section aspect will be discussed in detail below.

Ecstatic Orange

Of the three, *Ecstatic Orange* most uses motivic blocks to create formal structure. Each section of the piece is individually named and represents a different shade of orange (see Chart 1 pg. 7). By using the 16th-note motive as a link, Torke creates a flow between

¹¹ Peter Hill, *Stravinsky, The Rite of Spring* (New York: Cambridge University Press, 2000), 140.

sections. There are, however, a few sections where this does not occur as in m. 65 “Sunkist!” shown in Musical Example 34. Here Torke moves the piece to a compound meter without changing the 8th-note pulse. During this section the 16th-note motive is a notational augmentation to become an 8th-note motive. The motive returns to its original 16th-notes after seventeen measures of the compound meter.

Torke’s change in the orchestration helps reinforce the motivic blocking. Musical Example 35 shows the orchestration at m. 98 is almost halved and gradually more instruments are added until most return at m. 114. Immediately at m. 122 the score is reduced to just woodwinds and the rhythmic motive is greatly reduced as well. These reductions give the listener clear cues that a formal division has occurred and help reinforce the formal structure of the piece.

65 *brillante*

Picc. 1

Fl. 1 2

Ob. 1 2

Clar. (in Bb) 1 2

Bsn. 1 2

Hrn. (in F) 1 2 3 4

Trb. 1 2 3

2+2+3 2+3

8 8

brillante

Xyl. 1

Vib. 1

Perc. 2 3

Piano

65 **D** *Sunkist!*

Vn. I (div. a2)

Vn. II (div. a2)

Vla. (div. a2)

Vc. (div. a2)

Cb.

Musical Example 34: *Ecstatic Orange* change to 8th note pulse at mm. 65-66 (Split Score)

98

Fl. 1 2

Bsn. 1 2

4

Hn. (in F)

Trpt. (in D)

Trpt. (in Bb)

Tbn. Tuba

Perc. 1

Tript.

F 4

98 4 Absinthe and apricot

Vn. I

Vn. II (2x a2)

Cb.

122

Fl. 1 2

Ob. 1 2

Clar. (in Bb) 1 2

Bsn. 1 2

122 Carotene, changing to vitamin A

Perc. 1

Triangle

Musical Example 35: *Ecstatic Orange* reduced orchestration m. 98 and m. 122

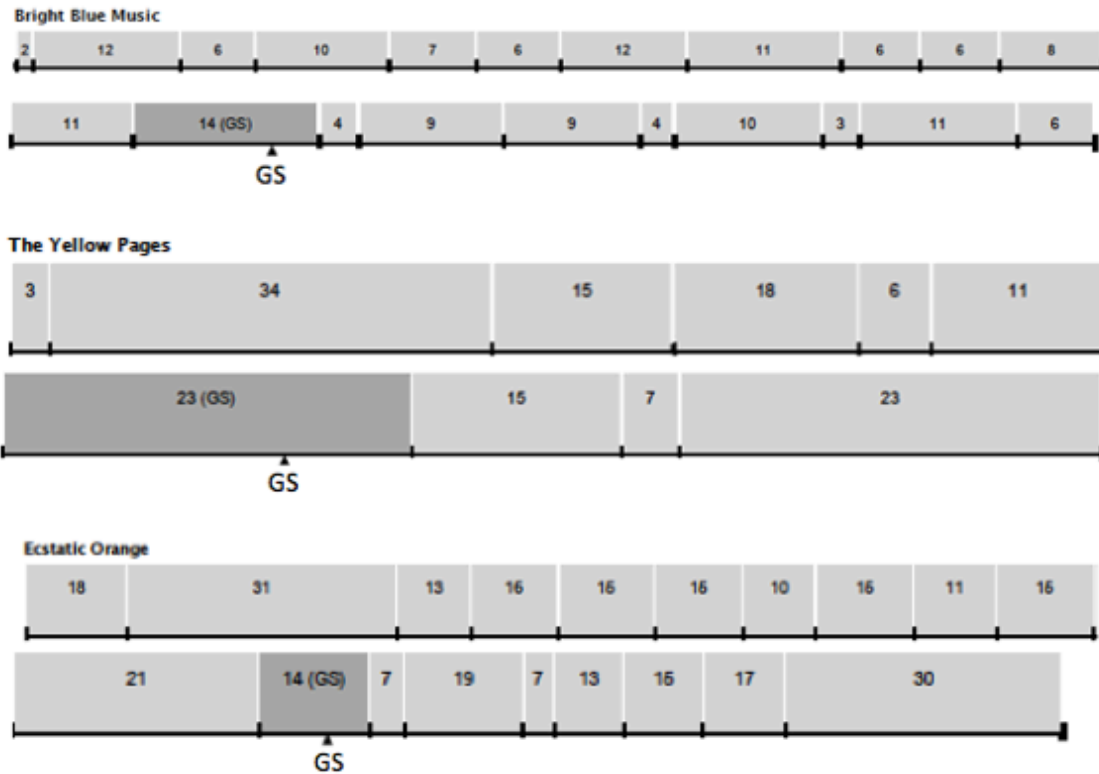


Chart 3: Visual Section Representation of Each Piece Also Showing the Golden Section (GS) Position

Chart 3 is a visual representation of all three pieces considered. Each number represents the number of measures in a section, and the darker-colored section designates the section where the golden section occurs. The mark indicated as GS is the location of the golden section in relation to the piece. Chart 4 shows a side-by-side comparison of the three pieces demonstrating the size of the different sections of each piece. The left column indicates the measure numbers of each section and the right column shows the total amount of measures in the sections. Torke shows consistency in his composition,

*Ecstatic Orange**The Yellow Pages**Bright Blue Music*

Measure Number	Total
1-18	18
19-50	31
51-64	13
65-81	16
82-97	15
98-113	15
114-121	10
122-137	15
138-149	11
100-165	15
166-187	21
188-202	14
203-210	7
211-230	19
231-238	7
239-252	13
253-268	15
269-286	17
287-317	30

Measure Number	Total
1-3	3
4-38	34
39-54	15
55-83	18
84-90	6
91-102	11
103-126	23
127-142	15
143-150	7
151-184	23

Measure Number	Total
1-2	2
3-15	12
16-22	6
23-33	10
34-41	7
42-48	6
49-61	12
62-73	11
74-80	6
81-87	6
88-96	8
97-106	11
107-121	14
122-126	4
127-136	9
137-146	9
147-151	4
152-162	10
163-166	3
167-188	11
189-195	6

Chart 4: Side-by-side comparison of sectioning

keeping each piece moving through timely transitioning. *Ecstatic Orange* features sections between 7 and 31 measures in length. The average size of each section is 15.1 measures with the second and last measures being double that length at 31 and 30 respectively. *Bright Blue Music* features sections between 2 and 14 measures. The average size of each section in this piece is 7.9 as Torke moves to the next section in roughly half the measures of *Ecstatic Orange*. *The Yellow Pages* features sections of 3 and 34 measures. The average size of each section is 15.5 measures. *The Yellow Pages*

use of rhythmic sectioning differs from *Ecstatic Orange* or *Bright Blue Music*. This may be attributed to the smaller instrumentation of the score and the multiple motives used by Torke. Taken together, Chart 4 indicates a consistency in Torke's approach to rhythmic sectioning and transitions — namely a transition to a new variation of motive, texture, or dynamic every 15 measures or half of that number.

The Golden Section

There is some significance between the “golden section” and its relationship to important moments in music. In her article, Michelle Phillips writes, “The term *golden section* is used to describe a specific mathematical relationship; when a line is divided in this ratio, the relation of the smaller to the larger part is equal to the relation of the larger part to the whole.”¹² As it relates to music, climaxes, major divisions, or other significant events often fall on or near the mathematical point of 61.8% of a piece by intent or intuition. The golden section of *Ecstatic Orange* occurs at m. 194 and coincides with the quasi-unison phrase of the trumpets and first horn in the section “Mineral and ore range.” This line is a *forte* restatement of the phrase introduced previously by the trombones. It is also one of the most sparsely orchestrated moments of the piece and does not feature any subdivision to the 16th note. When asked about the significance of this passage and its

¹² Michelle Phillips, “Rethinking the Role of the Golden Section in Music and Music Scholarship.” *Creativity Research Journal* 31, Vol. 4, no. 4 (2019): 419.

relationship to the golden section, Torke said he did not intentionally seek out this moment and its occurrence is the product of his writing process.¹³

A musical score for the piece 'Ecstatic Orange' at measure 194. The score is arranged in a system with five staves. The top staff is for Horn (Hn.) in F, marked 'brillante' and 'ff'. The second staff is for Trumpet (Trpt.) in D, also marked 'brillante' and 'ff'. The third staff is for Trumpet (Trpt.) in B-flat, marked 'brillante' and 'ff'. The fourth and fifth staves are for Trombone (Trb.) parts, marked 'ff'. The music is in 4/4 time and features a complex, rhythmic melody with many sixteenth and thirty-second notes. The dynamics are consistently forte (f) or fortissimo (ff).

Musical Example 36: Golden Section of *Ecstatic Orange* at m. 194

Bright Blue Music

Bright Blue Music also uses the main motive and its variations as the basis of form structure. And similar to *Ecstatic Orange*, Torke employs orchestration to add variety and movement throughout the piece. However, the number of measures in each section is much smaller compared to *Ecstatic Orange*. Considering the first two measures as an introduction, the remaining rhythmic sections contain roughly six to ten measures. The notable exception begins at m. 107 and ends at m. 125. This section is 18 measures

¹³ Michael Torke, Interview by author, Selinsgrove, November 5, 2020.

long and coincides with the golden section of the piece occurring at m.119 (see Musical Example 26). As discussed in the prior chapter, this moment is also significant because of its canon of the entire orchestra through the first 7 16th-notes in the measure.

Additionally, this moment contains most of the variations of the motive simultaneously between each system. Refer to Chart 2 for a form representation of *Bright Blue Music* and the position of the golden section in the form.

The Yellow Pages

The golden section of *The Yellow Pages* occurs on a motivic block change at m. 119. Of the three pieces this is the only occurrence of this phenomenon to take place at the beginning of a motivic block, although it comes in the middle of a section. *The Yellow Pages* golden section occurs slightly after the mathematical result at m. 119. Musical Example 37 shows m. 119 a continuous 16th-note phrase in the flutes and marks the beginning of an ensemble crescendo, which culminates at m. 143 in a fortissimo tutti 16th-note phrase.

Examining the golden section in each of these pieces is particularly telling as it shows significant musical moments. When the golden section phenomenon was discussed with the composer, he was not aware of these moments and did not purposely write for

that occasion.¹⁴ The presence of these moments further reinforces the fact that the golden ratio is deeply connected to aesthetics and the subconscious.

The image displays a musical score for 'The Yellow Pages', divided into two sections: m.119 and m.143. The score is arranged in a vertical format with five staves: Flute (Piccolo), Clarinet, Violin, Cello, and Piano. The Flute (Piccolo) staff begins at m.119 with a dynamic marking of *f*. The Clarinet, Violin, and Cello staves begin at m.119 with a dynamic marking of *mp*. The Piano staff begins at m.119 with a dynamic marking of *mf*. At m.143, all instruments play a *ff* *molto marc.* tutti section. The Flute (Piccolo) staff features a 16th-note phrase. The Clarinet, Violin, and Cello staves also feature a 16th-note phrase. The Piano staff features a 16th-note phrase.

Musical Example 37: *The Yellow Pages* golden section at m.119 and culminating tutti

16th-note phrase at m.143

¹⁴ Michael Torke, Interview by author, Selinsgrove, November 5, 2020.

Stratification

Another technique Torke uses to support rhythmic pulse and flow throughout all three pieces is stratification. In his book *Understanding Post-Tonal Music*, Roig-Francoli defines stratification as “Different lines or textural elements are presented as clearly audible, simultaneous, but separate elements. This process is referred to as stratification.”¹⁵ Stratification appears early in *Ecstatic Orange*. Musical Example 38 shows m. 19 where Torke continues the rhythmic motive in the strings and woodwinds while the brass contains sustained notes and 16th notes filling the rest gaps provided by the motive. This continues with the brass and percussion playing short, punctuating notes, and again filling the gaps through the section.

¹⁵ Miguel Roig-Francolí, *Understanding Post-Tonal Music* (New York: McGraw-Hill, 2008), 26.

19 20

Picc. *ff*

Fl. 1 *ff*

Ob. 1 *ff*

Clar. (in Bb) 1 *ff*

Bsn. 1 *ff*

Hrn. (in F) *ff* Solo *4. marcato* soaring

Trpt. (in Bb) 1 *ff* *staccato*

Trb. 1 *ff*

Tuba 1 *ff* heavy

Perc. 1 (Xyl.) *ff*

Perc. 2 (Sus. Cyreh.) *secco* (Zock.)

Perc. 3 Tamb. *secco*

Piano *ff* heavy

A Orange with damsons

19 20

Vn. I *ff* *unis*

div. a2 *ff* *div. unis*

Vn. II *ff* *div. unis*

div. a2 *ff* *div. unis*

Vla. *ff* *div. unis*

Vc. *ff* *div. unis*

Cb. *ff*

Musical Example 38: *Ecstatic Orange* mm. 19-24

Another example of stratification in three layers occurs at m. 65. Here, consistent 8th-notes are played in the upper winds and percussion, while sustained notes and single 16th-notes are in the lower winds, brass, and strings. Additionally, the oboes and clarinets play a split part featuring continuous 16th-notes through the section, as is shown in Musical Example 39 below. Stratification also occurs at m. 84 across all sections of the orchestra, with each section playing a different rhythmic figure. Notably a continuous pattern travels from the mallet percussion to the strings at m. 86. Furthermore, this is also an excellent example of Torke's use of RCS(16) of 1-2-4-8 in the woodwinds, horns, and lower brass (see Musical Example 40).

This musical score page, numbered 14, covers measures 65 to 70 of the piece 'Ecstatic Orange'. The score is written in 2/8 time and features a complex, driving rhythmic pattern of eighth and sixteenth notes, primarily in the woodwind and percussion sections. The instrumentation includes Piccolo, Flute (1 and 2), Oboe (1 and 2), Clarinet (in Bb) (1 and 2), Bassoon (1 and 2), Horn (in F) (1, 2, 3, 4), Trumpet (1, 2, 3), Percussion (Xyl., Vln., Mar., Mtr.), Piano, Violin I (div. a2), Violin II (div. a2), Viola (div. a2), Violoncello (div. a2), and Contrabass. The score is marked with a large 'D' and 'brillante' at the beginning of the section. The key signature has one flat (Bb). The score includes various dynamics such as *f*, *ff*, *mp*, and *pp*. The tempo is indicated as 'Allegretto'.

Musical Example 39: *Ecstatic Orange* mm. 65-70

This musical score page contains the orchestral parts for measures 84 through 89 of the piece 'Ecstatic Orange'. The score is organized into three systems, each with a dynamic marking of *cresc. molto* and a crescendo hairpin leading to a *fff!* dynamic.

System 1 (Measures 84-89):

- Woodwinds:** Piccolo (Picc.), Flute (Fl.), Oboe (Ob.), Clarinet in B-flat (Clar. (in Bb)), Bassoon (Bsa.).
- Brass:** Horns in F (Hrn. (in F)), Trumpets in D (Tpt. (in D)), Trumpets in B-flat (Tpt. (in Bb)), Trombone (Tbn.), and Tuba.
- Percussion and Piano:** Percussion (Perc.) and Piano (Piano).

System 2 (Measures 84-89):

- Strings:** Violins I (Vn. I div. a2), Violins II (Vn. II div. a2), Viola (Vla. div. a2), Violoncello (Vc. div. a2), and Contrabass (Cb.).

The score features complex rhythmic patterns, including sixteenth and thirty-second notes, and various articulations such as accents and slurs. The woodwinds and brass parts are particularly active, contributing to the overall texture and intensity of the music.

Musical Example 40: *Ecstatic Orange* mm. 84-89

Bright Blue Music's use of stratification is similar to *Ecstatic Orange* in that some instrument families support the main motives. In Musical Example 41, the first statement of the main theme at m. 16 is played in the woodwinds and upper brass (1) and is the main focus. Simultaneously, the upper strings (4) play the rhythmic motive and a variation while supported by the lower brass (2), percussion/piano (3), and contrabass (2). With this, four distinct layers of texture are created providing stratification during this moment.

Musical Example 42 shows one of the most prominent moments of stratification. Here at m. 62, the entire string section is playing an ostinato (1), while a melodic motive is found in the horns and first trumpet (2), with support in the upper winds and percussion as well as the remaining trumpets and lower brass (3). The bassoons also provide both rhythmic and harmonic support bridging the strings and horns. All of this culminates with the upper woodwinds reiterating the main rhythmic motive while the strings continue their ostinato pattern (4). At this point the brass performs their rhythmic canon and there are three distinct rhythmic events occurring simultaneously.

A) Brillante

1

2

3

4

5

6

7

8

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13

14

15

16

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100

Musical Example 41: *Bright Blue Music* Statement of Main Theme at m. 16

The musical score is divided into several systems:

- System 1:** Flute 1 (Fl. 1), Oboe 1 (Obs. 1), Clarinet 1 (Cl. 1), Bassoon 1 (Bass. 1), and Bassoon 2 (Bass. 2). Measures 62-65 are shown. A rehearsal mark '4' is placed above the Flute 1 staff at the start of measure 64.
- System 2:** Horns 1 (Hrn. 1), Horns 2 (Hrn. 2), Trombones 1 (Tbn. 1), Trombones 2 (Tbn. 2), Trombones 3 (Tbn. 3), and Tuba (Tuba). Measures 62-65 are shown.
- System 3:** Trumpets 1 (Tpt. 1), Trumpets 2 (Tpt. 2), Trombones 1 (Tbn. 1), Trombones 2 (Tbn. 2), Trombones 3 (Tbn. 3), and Tuba (Tuba). Measures 62-65 are shown.
- System 4:** Timpani (Timp.), Percussion 1 (Perc. 1), Percussion 2 (Perc. 2), and Percussion 3 (Perc. 3). Measures 62-65 are shown.
- System 5:** Violins 1 (Vln. I), Violins 2 (Vln. II), Violas (Vla.), Violas 1 (Vla. 1), Violas 2 (Vla. 2), and Cellos/Double Basses (Cbs.). Measures 62-65 are shown.

The score includes various musical notations such as dynamics (e.g., *f*, *ff*, *mf*), articulation (accents), and performance instructions (e.g., *Viv.*, *Tutti*).

Musical Example 42: *Bright Blue Music* mm. 62-65

Another notable moment of stratification in *Bright Blue Music* occurs at m. 167 in Musical Example 43. Here five different rhythmic patterns are played through the entire orchestra. The woodwinds and horns play similar rhythmic patterns (1) while the trombones and trumpets (2), percussion, piano, and harp (3) play similar patterns inside their group. The upper strings and cello (4) provide a variation on the main rhythmic motive and tuba, timpani, and contrabass provide a consistent accent on strong beats against the rhythmic action off of the beat in the other layers (5).

Torke's use of blocking and stratification play an important role in his compositional style. With an average section length of around 15 measures or roughly half of that at around 8, this analysis has shown that Torke remains consistent in the sections of each of these pieces. The phenomenon of the golden section was also found to have significance in all three pieces from a compositional perspective. All aspects considered from both chapters show Michael Torke having a well-organized, highly intricate compositional style that highlights the subtleties of rhythmic motive variation combined with rhythmic canon, consistent blocking as a formal structure, and stratification. These rhythmic components have set the foundation for Torke to become, not only a preeminent post-minimalist composer, but one of the more influential American composers in the last 36 years.

Q Tumulthood

1
 Perc. 1
 Fl. 1
 Obs. 1
 Cl. 1
 Bass. 1
 Bass. 2
 Hrn. 1
 Hrn. 2
 Hrn. 3

2
 Tpts. 1
 Tpts. 2
 Tpts. 3
 Trbn. 1
 Trbn. 2
 Trbn. 3

5
 Tuba
 Temp.
 Perc. 1
 Perc. 2
 Perc. 3

3
 Piano
 Harp

Q Tumultuously

4
 Vln. I
 Vln. II
 Vla.
 Vcl.
 Obs.

5

Musical Example 43: *Bright Blue Music* mm. 167-169

CHAPTER 3- *PRIMARY, SECONDARY, TERTIARY*

Instrumentation:

Piccolo	Trumpet in Bb 1,2
Flute 1,2	Horn in F 1,2
Oboe 1,2	Horn in F 3,4
Clarinet in Eb	Trombone 1,2
Clarinet in Bb 1	Bass Trombone
Clarinet in Bb 2,3	Euphonium
Bass Clarinet in Bb	Tuba
Bassoon	Tympani
Soprano Saxophone	Battery
Alto Saxophone 1,2	Xylophone
Tenor Saxophone	Marimba
Baritone Saxophone	Piano
	Contrabass

Duration:

12 Minutes and 27 Seconds

Primary, Secondary, Tertiary

♩ = 110 "Primary" Aaron Fast

The score is for a full orchestra and percussion ensemble. The tempo is marked as *♩* = 110. The title is "Primary" by Aaron Fast. The score is in 4/4 time. The woodwind section includes Piccolo, Flute, Oboe, Clarinet in E_♭, Clarinet in B_♭ 1, Clarinet in B_♭ 2, 3, Bass Clarinet in B_♭, Bassoon, Soprano Saxophone, Alto Saxophone 1, 2, Tenor Saxophone, and Baritone Saxophone. The brass section includes Trumpet in B_♭ 1, 2, Horn in F 1, 2, Horn in F 3, 4, Trombone 1, 2, Bass Trombone, Euphonium, and Tuba. The percussion section includes Timpani, Snare Drum, Bass Drum, Cymbals, Xylophone, and Marimba. The strings section includes Piano and Contrabass. The score features various dynamics such as *f*, *ff*, *mf*, and *unis.* (unison). There are also markings for *a2* (second octave) for the brass instruments. The score is divided into measures, with some measures containing rests for certain instruments.

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9

Picc. *mp*
 Fl. 1, 2 *mf*
 Ob. 1, 2 *p*
 Eb Cl. *mp*
 Cl. 1 *mp*
 Cl. 2, 3 *mp*
 B. Cl. *p*
 Bsn. *mp*
 Sop. Sax. *mp*
 Alto Sax. 1, 2 *mf*
 T. Sax. *mf*
 B. Sax. *p*
 Tpt. 1, 2 *unis.*
 Hn. 1, 2 *unis.*
 Hn. 3, 4 *mp*
 Tbn. 1, 2 *p*
 B. Tbn. *f*
 Euph. *p*
 Tba. *p*
 Timp.
 S. D.
 B. D.
 Cym.
 Xyl. *mp*
 Mar.
 Pno. *p*
 Cb. *f* *pizz.*

12

17

Picc.

Fl. 1, 2

Ob. 1, 2

Eng. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

ff

mf

f

p

unis.

arco

18 23

Picc. *mf*

Fl. 1, 2 *mf*

Ob. 1, 2 *mf*

Es. Cl. *mp*

Cl. 1 *f* *mp* *mf*

Cl. 2, 3 *f* *mp* *mf*

B. Cl. *mf* *mp*

Bsn. *mp*

Sop. Sax. *mp*

Alto Sax. 1, 2 *mp* *mf* *Whis.*

T. Sax. *mp* *mf*

B. Sax. *mp*

Tpt. 1, 2 *f*

Hn. 1, 2 *f* *unis. mf*

Hn. 3, 4 *f* *mp* *unis.*

Tbn. 1, 2 *f*

B. Tbn. *f*

Euph. *f*

Tba. *f* *mp*

Timp. *p* *pp*

S. D.

B. D.

Cym.

Xyl. *mp*

Mar. *mp*

Pno. *mf*

Cb. 18 *mp* 23 *arco*

24

Picc. -

Fl. 1, 2 -

Ob. 1, 2 -

E♭ Cl. -

Cl. 1 *mf* -

Cl. 2, 3 *mf* -

B. Cl. -

Bsn. -

Sop. Sax. -

Alto Sax. 1, 2 *mp* -

T. Sax. -

B. Sax. -

Tpt. 1, 2 -

Hrn. 1, 2 -

Hrn. 3, 4 -

Tbn. 1, 2 -

B. Tbn. -

Euph. -

Tba. -

Timp. -

S. D. -

B. D. -

Cym. -

Xyl. -

Mar. -

Pno. -

Cb. -

27 *f* *pizz.*

Detailed description: This is a page of a musical score for orchestra and woodwinds, covering measures 24 through 27. The score is written in a key signature of two flats (B-flat major or D-flat minor) and a common time signature. The instruments listed on the left include Piccolo, Flutes 1 and 2, Oboes 1 and 2, E-flat Clarinet, Clarinets 1, 2, and 3, Bass Clarinet, Bassoon, Soprano Saxophone, Alto Saxophones 1 and 2, Tenor Saxophone, Bass Saxophone, Trumpets 1 and 2, Horns 1, 2, 3, and 4, Trombones 1 and 2, Bass Trombone, Euphonium, Tuba, Timpani, Snare Drum, Bass Drum, Cymbals, Xylophone, Maracas, Piano, and Contrabass. The score features various musical notations such as rests, notes, slurs, and dynamic markings. Notable dynamics include *mf* (mezzo-forte) for Clarinets 1 and 2, *mp* (mezzo-piano) for Alto Saxophones 1 and 2, *pp* (pianissimo) for Piccolo and Clarinets 2 and 3, and *f* (forte) for Piano in measure 27. A *pizz.* (pizzicato) marking is also present for the Contrabass in measure 27. The page number '27' is printed in a box at the top center.

30 **31**

Picc. *f*

Fl. 1, 2 *f*

Ob. 1, 2 *f*

Es. Cl. *f*

Cl. 1 *f*

Cl. 2, 3 *f*

B. Cl. *f*

Bsn. *f*

Sop. Sax. *f*

Alto Sax. 1, 2 *f*

T. Sax. *f*

B. Sax. *f*

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn. *ff*

Euph. *ff*

Tba. *ff*

Timp. *mf*

S. D. *f*

B. D. *f*

Cym. *f*

Xyl.

Mar.

Pno.

Cb. **31** *arco*

ff

37

Picc. *mf*

Fl. 1, 2 *mf*

Ob. 1, 2 *mf*

Es. Cl. *mf*

Cl. 1 *mf*

Cl. 2, 3 *mf*

B. Cl. *mf*

Bsn. *mf*

Sop. Sax. *mf*

Alto Sax. 1, 2 *mf*

T. Sax. *mf*

B. Sax. *mf*

Tpt. 1, 2 *mf* unis.

Hn. 1, 2 *mf* unis.

Hn. 3, 4 *mf* *a2*

Tbn. 1, 2 *mf*

B. Tbn. *mf*

Euph. *mf*

Tba. *mf*

Temp. *mf*

S. D. *mf*

B. D. *f*

Cym. *f* *pp* *f*

Xyl. *f*

Mar. *f*

Pno. *f*

Cb. *f*

43 46

Picc.

Fl. 1, 2

Ob. 1, 2

Eng. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

mp

f

mp

mf

pizz. arco

arco

46

47

51

Picc.

Fl. 1, 2

Ob. 1, 2

Es. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

56 60

Picc.
 Fl. 1, 2
 Ob. 1, 2
 Eb Cl.
 Cl. 1
 Cl. 2, 3
 B. Cl.
 Bsn.
 Sop. Sax.
 Alto Sax. 1, 2
 T. Sax.
 B. Sax.
 Tpt. 1, 2
 Hn. 1, 2
 Hn. 3, 4
 Tbn. 1, 2
 B. Tbn.
 Euph.
 Tba.
 Timp.
 S. D.
 B. D.
 Cym.
 Xyl.
 Mar.
 Pno.
 Cb.

p
mf
mf
p
p
p
p
mp
mp
mp
mf
 60^{zz.}
mf

62

Picc.

Fl. 1, 2

Ob. 1, 2

Es. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

68 **68**

Picc. -

Fl. 1, 2 *mp*

Ob. 1, 2 *mp*

Es. Cl. *mp*

Cl. 1 *mp*

Cl. 2, 3 *mp*

B. Cl. *mp*

Bsn. *mp*

Sop. Sax. *mp*

Alto Sax. 1, 2 *mp* unsi.

T. Sax. *mp*

B. Sax. *mp*

Tpt. 1, 2 *mp* a2

Hn. 1, 2 *mp* a2

Hn. 3, 4 *mp* a2

Tbn. 1, 2 *mp*

B. Tbn. *mp*

Euph. *mp*

Tba. *mp*

Timp. -

S. D. -

B. D. -

Cym. -

Xyl. *mp*

Mar. *mp*

Pno. -

Clb. **68** *mp*

72

Picc. -
Fl. 1, 2 -
Ob. 1, 2 -
E♭ Cl. -
Cl. 1 -
Cl. 2, 3 -
B. Cl. -
Bsn. -
Sop. Sax. -
Alto Sax. 1, 2 -
T. Sax. -
B. Sax. *mp* -
Tpt. 1, 2 -
Hn. 1, 2 -
Hn. 3, 4 -
Tbn. 1, 2 -
B. Tbn. -
Euph. -
Tba. -
Timp. -
S. D. -
B. D. -
Cym. -
Xyl. -
Mar. -
Pno. -
Cb. -

77 80

Picc. - - - - -

Fl. 1, 2 - - - - - *mp*

Ob. 1, 2 - - - - -

Eng. Cl. - - - - - *mp*

Cl. 1 - - - - - *mp*

Cl. 2, 3 - - - - -

B. Cl. - - - - - *mp*

Bsn. - - - - -

Sop. Sax. - - - - -

Alto Sax. 1, 2 - - - - -

T. Sax. - - - - - *mf*

B. Sax. - - - - -

Tpt. 1, 2 - - - - - *pp* *unis.*

Hn. 1, 2 - - - - - *pp*

Hn. 3, 4 - - - - - *pp*

Tbn. 1, 2 - - - - - *pp* *mf*

B. Tbn. - - - - - *p* *mp*

Euph. - - - - - *mf*

Tba. - - - - - *p* *mp*

Timp. - - - - -

S. D. - - - - -

B. D. - - - - -

Cym. - - - - -

Xyl. - - - - - *mp*

Mar. - - - - - *mp*

Pno. - - - - -

Cb. - - - - - *p* *mf*

82

86

Picc.

Fl. 1, 2

Ob. 1, 2

Es. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

86

87

Picc.

Fl. 1, 2

Ob. 1, 2

E♭ Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

92 94

Picc. *f*

Fl. 1, 2 *f*

Ob. 1, 2 *f*

E♭ Cl. *f*

Cl. 1 *f*

Cl. 2, 3 *f*

B. Cl. *f*

Bsn. -

Sop. Sax. *mf*

Alto Sax. 1, 2 *mf*

T. Sax. *mf*

B. Sax. *mf*

Tpt. 1, 2 *mf*

Hn. 1, 2 *mf*

Hn. 3, 4 *mf*

Tbn. 1, 2 *ff*

B. Tbn. *ff*

Euph. *mf*

Tba. *ff*

Timp. *ff*

S. D. *p*

B. D. *ff*

Cym. -

Xyl. *mf*

Mar. *mf*

Pno. -

Cb. *f*

ff

98

Picc.
Fl. 1, 2
Ob. 1, 2
Es. Cl.
Cl. 1
Cl. 2, 3
B. Cl.
Bsn.
Sop. Sax.
Alto Sax. 1, 2
T. Sax.
B. Sax.
Tpt. 1, 2
Hn. 1, 2
Hn. 3, 4
Tbn. 1, 2
B. Tbn.
Euph.
Tbn.
Timp.
S. D.
B. D.
Cym.
Xyl.
Mar.
Pno.
Cb.

104

112

Picc.

Fl. 1, 2

Ob. 1, 2

Es. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

ff

mf

pp

Detailed description of the musical score page: This is a page from a symphonic score, likely for a concert band or orchestra. It features 25 staves. The top section (measures 104-112) includes woodwinds: Piccolo, Flutes 1 & 2, Oboes 1 & 2, English Horn, Clarinets 1, 2 & 3, Bass Clarinet, Bassoon, Soprano Saxophone, Alto Saxophones 1 & 2, Tenor Saxophone, and Baritone Saxophone. The middle section (measures 112-118) includes brass: Trumpets 1 & 2, Horns 1 & 2, Horns 3 & 4, Trombones 1 & 2, Baritone Trombone, Euphonium, and Tuba. The bottom section (measures 118-124) includes percussion: Snare Drum, Bass Drum, Cymbals, Xylophone, and Maracas, followed by Piano and Contrabass. Dynamic markings such as *ff* (fortissimo), *mf* (mezzo-forte), and *pp* (pianissimo) are used throughout. Measure numbers 104 and 112 are clearly marked at the beginning of their respective sections.

114 "Secondary"

Picc.

Fl. 1, 2

Ob. 1, 2

Es. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

mf

f

121

126

Picc. *mf*

Fl. 1, 2 *mf*

Ob. 1, 2 *mf*

Es. Cl. *mf*

Cl. 1 *mf*

Cl. 2, 3 *mf*

B. Cl. *mf*

Bsn. -

Sop. Sax. -

Alto Sax. 1, 2 -

T. Sax. -

B. Sax. -

Tpt. 1, 2 -

Hn. 1, 2 -

Hn. 3, 4 -

Tbn. 1, 2 *f*

B. Tbn. *f*

Euph. *f*

Tba. *f*

Timp. -

S. D. -

B. D. *mf*

Cym. -

Xyl. *mf*

Mar. *mf*

Pno. *ff*

126

Cb. *f*

Detailed description: This is a page of a musical score for a large orchestra and percussion ensemble. The score is written in a key signature of two flats (B-flat major or D-flat minor) and a common time signature. It covers measures 121 through 126. The instruments are arranged in a standard orchestral layout. The woodwinds (Piccolo, Flutes 1 & 2, Oboes 1 & 2, English Horn, Clarinets 1, 2 & 3, Bass Clarinet, Bassoon) and strings (Trumpets 1 & 2, Horns 1, 2, 3 & 4, Trombones 1 & 2, Baritone Trombone, Euphonium, Tuba) are shown with various dynamics such as *mf* (mezzo-forte) and *f* (forte). The percussion section includes Snare Drum, Bass Drum, Cymbals, Xylophone, Maracas, Piano, and Contrabass. The score features complex rhythmic patterns, including sixteenth and thirty-second notes, and rests. Measure 126 is marked with a box containing the number 126. The bottom of the page is numbered 82.

127

Picc. *f*

Fl. 1, 2 *f*

Ob. 1, 2 *f*

Es. Cl. *f*

Cl. 1 *f*

Cl. 2, 3 *f*

B. Cl. *f*

Bsn. *f*

Sop. Sax. *f*

Alto Sax. 1, 2 *f*

T. Sax. *f*

B. Sax. *f*

Tpt. 1, 2 *f*

Hn. 1, 2 *f*

Hn. 3, 4 *f*

Tbn. 1, 2 *f*

B. Tbn. *f*

Euph. *f*

Tba. *f*

Timp. *mf*

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

133 134 138

Picc. *mf*

Fl. 1, 2 *mp*

Ob. 1, 2 *mf*

Es Cl.

Cl. 1 *mf*

Cl. 2, 3 *mp*

B. Cl. *f*

Bsn. *f*

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2 *mp* unis.

Hn. 1, 2 *mf* unis.

Hn. 3, 4 *p*

Tbn. 1, 2 *f*

B. Tbn.

Euph. *mp*

Tbn. *mp*

Timp. *mf*

S. D.

B. D. *f*

Cym.

Xyl. *mf*

Mar. *mf*

Pno.

Cb. *f* 134 138

139 142

Picc.
Fl. 1, 2
Ob. 1, 2
Eng. Cl.
Cl. 1
Cl. 2, 3
B. Cl.
Bsn.
Sop. Sax.
Alto Sax. 1, 2
T. Sax.
B. Sax.
Tpt. 1, 2
Hn. 1, 2
Hn. 3, 4
Tbn. 1, 2
B. Tbn.
Euph.
Tbn.
Timp.
S. D.
B. D.
Cym.
Xyl.
Mar.
Pno.
Cb.

145

Picc.

Fl. 1, 2

Ob. 1, 2

Eng. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

149

151

Picc.
 Fl. 1, 2
 Ob. 1, 2
 E♭ Cl.
 Cl. 1
 Cl. 2, 3
 B. Cl.
 Bsn.
 Sop. Sax.
 Alto Sax. 1, 2
 T. Sax.
 B. Sax.
 Tpt. 1, 2
 Hn. 1, 2
 Hn. 3, 4
 Tbn. 1, 2
 B. Tbn.
 Euph.
 Tba.
 Timp.
 S. D.
 B. D.
 Cym.
 Xyl.
 Mar.
 Pno.
 Cb.

157 160

Picc. *mf*

Fl. 1, 2 *mf*

Ob. 1, 2 *mf*

Es. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2 *mf* *un.*

Hn. 3, 4 *p*

Tbn. 1, 2 *mf*

B. Tbn. *mf*

Euph.

Tba. *mf*

Timp. *mf*

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb. *mf* 160

162 164

Picc. *f*

Fl. 1, 2 *f*

Ob. 1, 2 *f*

Es. Cl. *f*

Cl. 1 *f*

Cl. 2, 3 *f*

B. Cl. *f*

Bsn. *f*

Sop. Sax. *f*

Alto Sax. 1, 2 *mf* a2

T. Sax. *mf*

B. Sax. *mf*

Tpt. 1, 2

Hr. 1, 2

Hr. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno. *ff*

Cb. 164

167 170

Picc. *f*

Fl. 1, 2 *f*

Ob. 1, 2 *f*

Es. Cl. *f*

Cl. 1 *f*

Cl. 2, 3 *f*

B. Cl. *f*

Bsn. *f*

Sop. Sax. *f*

Alto Sax. 1, 2 *f*

T. Sax. *f*

B. Sax. *f*

Tpt. 1, 2 *mp*

Hn. 1, 2 *mp*

Hn. 3, 4 *mp*

Tbn. 1, 2 *mp*

B. Tbn. *mp*

Euph. *mp*

Tba. *mp*

Timp. *mp*

S. D. *mp*

B. D. *mp*

Cym. *mp*

Xyl. *mp*

Mar. *mp*

Pno. *mp*

Cb. *mp*

170

172

Picc.
 Fl. 1, 2
 Ob. 1, 2
 Eb Cl.
 Cl. 1
 Cl. 2, 3
 B. Cl.
 Bsn.
 Sop. Sax.
 Alto Sax. 1, 2
 T. Sax.
 B. Sax.
 Tpt. 1, 2
 Hn. 1, 2
 Hn. 3, 4
 Tbn. 1, 2
 B. Tbn.
 Euph.
 Tba.
 Timp.
 S. D.
 B. D.
 Cym.
 Xyl.
 Mar.
 Pno.
 Cb.

177

Picc.

Fl. 1, 2

Ob. 1, 2

En. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

182 ↓ **183**

Picc. - - - - -
Fl. 1, 2 - - - - -
Ob. 1, 2 - - - - -
Eb Cl. - - - - -
Cl. 1 - - - - -
Cl. 2, 3 - - - - - *f* - - - - -
B. Cl. - - - - - *f* - - - - -
Bsn. - - - - - *f* - - - - -
Sop. Sax. - - - - - *f* unis. - - - - -
Alto Sax. 1, 2 - - - - - *f* - - - - -
T. Sax. - - - - -
B. Sax. - - - - -
Tpt. 1, 2 - - - - -
Hn. 1, 2 - - - - - *mf* unis. - - - - -
Hn. 3, 4 - - - - -
Tbn. 1, 2 - - - - -
B. Tbn. - - - - -
Euph. - - - - -
Tbn. - - - - -
Timp. - - - - -
S. D. - - - - -
B. D. - - - - -
Cym. - - - - -
Xyl. - - - - -
Mar. - - - - - *mf* - - - - -
Pno. - - - - - *f* - - - - -
Cb. - - - - - *f* **183** *pizz.* - - - - -

196

Picc.
Fl. 1, 2
Ob. 1, 2
En. Cl.
Cl. 1
Cl. 2, 3
B. Cl.
Bsn.
Sop. Sax.
Alto Sax. 1, 2
T. Sax.
B. Sax.
Tpt. 1, 2
Hn. 1, 2
Hn. 3, 4
Tbn. 1, 2
B. Tbn.
Euph.
Tba.
Timp.
S. D.
B. D.
Cym.
Xyl.
Mar.
Pno.
Cb.

203

Picc. ²⁰³

Fl. 1, 2

Ob. 1, 2

Eng. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tbn.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb. ²⁰³ _{pizz.}

unis.

mf

f

209 214

Picc. - - - - - *f* *2nd*

Fl. 1, 2 - - - - - *f*

Ob. 1, 2 - - - - - *f*

E♭ Cl. - - - - -

Cl. 1 - - - - -

Cl. 2, 3 *p* *f*

B. Cl. - - - - -

Bsn. - - - - -

Sop. Sax. *f*

Alto Sax. 1, 2 *f*

T. Sax. - - - - - *f*

B. Sax. - - - - - *f*

Tpt. 1, 2 - - - - - *f* *2nd*

Hn. 1, 2 - - - - - *f* *2nd*

Hn. 3, 4 - - - - - *f* *2nd*

Tbn. 1, 2 - - - - - *f*

B. Tbn. - - - - - *f*

Euph. - - - - - *f*

Tba. - - - - - *f*

Timp. - - - - - *p* *f*

S. D. - - - - -

B. D. - - - - -

Cym. - - - - -

Xyl. - - - - - *f*

Mar. - - - - - *f*

Pno. - - - - - *ff*

Cb. - - - - - *f* *2nd*

216

Picc.
Fl. 1, 2
Ob. 1, 2
En. Cl.
Cl. 1
Cl. 2, 3
B. Cl.
Bsn.
Sop. Sax.
Alto Sax. 1, 2
T. Sax.
B. Sax.
Tpt. 1, 2
Hn. 1, 2
Hn. 3, 4
Tbn. 1, 2
B. Tbn.
Euph.
Tba.
Timp.
S. D.
B. D.
Cym.
Xyl.
Mar.
Pno.
Cb.

221

Picc.

Fl. 1, 2

Ob. 1, 2

Es. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

227

Picc. - - - - - *ff*

Fl. 1, 2 - - - - - *ff*

Ob. 1, 2 - - - - - *ff*

Es. Cl. *f* - - - - - *ff*

Cl. 1 *f* - - - - - *ff*

Cl. 2, 3 *f* - - - - - *ff*

B. Cl. *f* - - - - - *ff*

Bsn. *f* - - - - - *ff*

Sop. Sax. *f* - - - - - *ff*

Alto Sax. 1, 2 *f* - - - - - *ff*

T. Sax. *f* *unis.* - - - - - *ff*

B. Sax. *f* - - - - - *ff*

Tpt. 1, 2 - - - - - *ff* *unis.*

Hn. 1, 2 - - - - - *ff* *unis.*

Hn. 3, 4 - - - - - *ff* *unis.*

Tbn. 1, 2 - - - - - *ff*

B. Tbn. - - - - - *ff*

Euph. - - - - - *ff*

Tbn. - - - - - *ff*

Timp. - - - - - *ff*

S. D. - - - - - *f*

B. D. - - - - - *ff*

Cym. - - - - -

Xyl. *f* - - - - - *ff*

Mar. - - - - -

Pno. *f* - - - - - *ff*

Cb. - - - - - *ff*

232

Picc.

Fl. 1, 2

Ob. 1, 2

Es. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

ff

245 250

Picc. *f*

Fl. 1, 2 *f*

Ob. 1, 2 *f*

Es. Cl. *f*

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax. *mf*

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2 *f*
unis.

Hn. 1, 2 *mp*
unis.

Hn. 3, 4 *mp*

Tbn. 1, 2 *f*

B. Tbn.

Euph.

Tba. *f*

Timp. *mf*

S. D.

B. D.

Cym.

Xyl. *mp*

Mar.

Pno.

Cb. 250_{lo}
f

251 255

Picc. *mp*

Fl. 1, 2 *mp*

Ob. 1, 2

Es. Cl.

Cl. 1 *mf*

Cl. 2, 3 *mp* unis.

B. Cl.

Bsn. *mf*

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp. *p*

S. D.

B. D.

Cym.

Xyl.

Mar. *mp*

Pno.

Cb. 255

257 262

Picc. *mf*

Fl. 1, 2 *mf*

Ob. 1, 2 *mf*

Eng. Cl. *mf*

Cl. 1

Cl. 2, 3

B. Cl. *mf*

Bsn. *mf*

Sop. Sax. *mf*

Alto Sax. 1, 2 *mf* unis.

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn. *mf*

Euph. *mf*

Tbn. *mf*

Timp. *mf*

S. D.

B. D.

Cym.

Xyl. *mf*

Mar. *mf*

Pno.

Cb. *mf*

262

263

Picc.

Fl. 1, 2

Ob. 1, 2

Es. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

269

Picc. *mf*
 Fl. 1, 2 *mf*
 Ob. 1, 2 *mf*
 Eb Cl. *mf*
 Cl. 1 *mp*
 Cl. 2, 3 *mp*
 B. Cl. *mf*
 Bsn. *mp*
 Sop. Sax. *mf*
 Alto Sax. 1, 2 *mf*
 T. Sax. *mp*
 B. Sax. *mp*
 Tpt. 1, 2 *f*
 Hn. 1, 2 *f*
 Hn. 3, 4 *f*
 Tbn. 1, 2 *f*
 B. Tbn. *f*
 Euph. *mf*
 Tba. *mf*
 Timp. *mf*
 S. D. *mf*
 B. D. *mf*
 Cym. *mf*
 Xyl. *mf*
 Mar. *mf*
 Pno. *mf*
 Cb. *mf*

273

Picc. *f*

Fl. 1, 2 *f*

Ob. 1, 2 *f*

Eng. Cl. *f*

Cl. 1 *mp* *p* *pp*

Cl. 2, 3 *mp* *p* *pp*

B. Cl. *f*

Bsn. *mp* *p* *pp*

Sop. Sax. *f*

Alto Sax. 1, 2 *f*

T. Sax. *mp* *p* *pp*

B. Sax. *mp* *p* *pp*

Tpt. 1, 2 *f*

Hn. 1, 2 *f*

Hn. 3, 4 *f*

Tbn. 1, 2 *f*

B. Tbn. *f*

Euph. *f*

Tba. *f*

Timp.

S. D.

B. D.

Cym.

Xyl. *f*

Mar. *mp* *p* *pp*

Pno.

Cb. *f*

281

Picc. *ff*

Fl. 1, 2 *ff*

Ob. 1, 2 *ff*

Es. Cl. *ff*

Cl. 1

Cl. 2, 3

B. Cl. *ff*

Bsn. -

Sop. Sax. *ff*

Alto Sax. 1, 2 *ff*

T. Sax. -

B. Sax. -

Tpt. 1, 2 *ff*

Hn. 1, 2 *ff*

Hn. 3, 4 -

Tbn. 1, 2 *ff*

B. Tbn. *ff*

Euph. *ff*

Tba. *ff*

Timp. *ff*

S. D. -

B. D. -

Cym. -

Xyl. *ff*

Mar. -

Pno. -

Cb. *ff*

289 **291**

Picc. *ff*
 Fl. 1, 2 *ff*
 Ob. 1, 2 *ff*
 Eb Cl. *ff*
 Cl. 1
 Cl. 2, 3
 B. Cl. *ff*
 Bsn.
 Sop. Sax. *ff*
 Alto Sax. 1, 2 *ff*
 T. Sax.
 B. Sax.
 Tpt. 1, 2 *ff*
 Hn. 1, 2 *ff*
 Hn. 3, 4
 Tbn. 1, 2 *ff*
 B. Tbn. *ff*
 Euph. *ff*
 Tbn. *ff*
 Timp. *ff*
 S. D.
 B. D.
 Cym.
 Xyl. *ff*
 Mar. *mp* *ff* *mf*
 Pno. *mp* *mf*
 Cb. *ff*

291

296

Picc. *ff*
 Fl. 1, 2 *ff*
 Ob. 1, 2 *ff*
 Eb Cl. *ff*
 Cl. 1
 Cl. 2, 3
 B. Cl. *ff*
 Bsn. *mf*
 Sop. Sax. *ff*
 Alto Sax. 1, 2 *ff*
 T. Sax. *mf*
 B. Sax. *mf*
 Tpt. 1, 2 *ff*
 Hn. 1, 2 *ff*
 Hn. 3, 4
 Tbn. 1, 2 *ff*
 B. Tbn. *ff*
 Euph. *ff*
 Tba. *ff*
 Timp. *ff*
 S. D.
 B. D. *mp*
 Cym.
 Xyl. *ff*
 Mar. *ff*
 Pno. *mf*
 Cb. *ff*

302 305

Picc. *ff*

Fl. 1, 2 *ff*

Ob. 1, 2 *ff* *mf*

En. Cl. *ff*

Cl. 1 *ff* *f*

Cl. 2, 3 *mf* *ff* *f*

B. Cl. *ff*

Bsn. *ff*

Sop. Sax. *ff*

Alto Sax. 1, 2 *ff*

T. Sax. *ff*

B. Sax. *ff*

Tpt. 1, 2 *ff*

Hn. 1, 2 *ff*

Hn. 3, 4 *ff* *unis.*

Tbn. 1, 2 *ff* *mf* *a2*

B. Tbn. *ff* *mf*

Euph. *ff* *mf*

Tba. *ff* *mf*

Timp. *ff* *mf*

S. D. *ff*

B. D. *ff*

Cym. *ff*

Xyl. *ff* *f*

Mar. *ff* *f*

Pno. *ff* *f*

Cb. *ff* *f* 305

308 312

Picc. *mf*

Fl. 1, 2 *mf*

Ob. 1, 2 *f*

Eng. Cl. *f*

Cl. 1 *f*

Cl. 2, 3 *f*

B. Cl. *f*

Bsn. *f*

Sop. Sax. *f*

Alto Sax. 1, 2 *f*

T. Sax. *f*

B. Sax. *f*

Tpt. 1, 2 *f*

Hrn. 1, 2 *f*

Hrn. 3, 4 *ff*

Tbn. 1, 2 *ff*

B. Tbn. *f*

Euph. *f*

Tbn. *f*

Timp. *f*

S. D. *f*

B. D. *f*

Cym. *f*

Xyl. *f*

Mar. *f*

Pno. *f*

Cb. *f*

312

313

Picc.

Fl. 1, 2

Ob. 1, 2

Eng. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hr. 1, 2

Hr. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

317 319

Picc. *f*

Fl. 1, 2 *f*

Ob. 1, 2 *f*

Es. Cl. *f*

Cl. 1 *f*

Cl. 2, 3 *f*

B. Cl. -

Bsn. -

Sop. Sax. -

Alto Sax. 1, 2 -

T. Sax. -

B. Sax. -

Tpt. 1, 2 *f* unis.

Hn. 1, 2 *f* unis.

Hn. 3, 4 -

Tbn. 1, 2 *f*

B. Tbn. *f*

Euph. -

Tba. *f*

Timp. *f*

S. D. -

B. D. -

Cym. -

Xyl. *f*

Mar. *f*

Pno. *f*

Cb. 319 *f*

322 326

Picc. 326

Fl. 1, 2

Ob. 1, 2

Es. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb. 326

327

Picc.
Fl. 1, 2
Ob. 1, 2
Eng. Cl.
Cl. 1
Cl. 2, 3
B. Cl.
Bsn.
Sop. Sax.
Alto Sax. 1, 2
T. Sax.
B. Sax.
Tpt. 1, 2
Hn. 1, 2
Hn. 3, 4
Tbn. 1, 2
B. Tbn.
Euph.
Tba.
Timp.
S. D.
B. D.
Cym.
Xyl.
Mar.
Pno.
Cb.

332

335

Picc. *ff* *f*

Fl. 1, 2 *ff* *f*

Ob. 1, 2 *ff* *f*

Es. Cl. *ff* *f*

Cl. 1 *ff* *f*

Cl. 2, 3 *ff* *f* *unis.*

B. Cl. *ff* *f*

Bsn. *ff*

Sop. Sax. *ff* *f*

Alto Sax. 1, 2 *ff* *f*

T. Sax. *ff* *f*

B. Sax. *ff*

Tpt. 1, 2 *f*

Hn. 1, 2 *f*

Hn. 3, 4 *f*

Tbn. 1, 2 *f*

B. Tbn. *f*

Euph. *ff* *f*

Tba. *f*

Timp. *f*

S. D. *f*

B. D. *f*

Cym. *f*

Xyl. *f*

Mar. *f*

Pno. *f*

Cb. *f*

335

337

Picc. Fl. 1, 2 Ob. 1, 2 Es. Cl. Cl. 1 Cl. 2, 3 B. Cl. Bsn. Sop. Sax. Alto Sax. 1, 2 T. Sax. B. Sax. Tpt. 1, 2 Hn. 1, 2 Hn. 3, 4 Tbn. 1, 2 B. Tbn. Euph. Tba. Timp. S. D. B. D. Cym. Xyl. Mar. Pno. Cb.

The image shows a page of a musical score, numbered 337 at the top left. It contains 21 staves of music. The instruments listed on the left are: Piccolo (Picc.), Flutes 1 and 2 (Fl. 1, 2), Oboes 1 and 2 (Ob. 1, 2), English Horn (Es. Cl.), Clarinets 1, 2, and 3 (Cl. 1, Cl. 2, 3), Bass Clarinet (B. Cl.), Bassoon (Bsn.), Soprano Saxophone (Sop. Sax.), Alto Saxophones 1 and 2 (Alto Sax. 1, 2), Tenor Saxophone (T. Sax.), Baritone Saxophone (B. Sax.), Trumpets 1 and 2 (Tpt. 1, 2), Horns 1, 2, 3, and 4 (Hn. 1, 2, Hn. 3, 4), Trombones 1 and 2 (Tbn. 1, 2), Baritone Trombone (B. Tbn.), Euphonium (Euph.), Tuba (Tba.), Timpani (Timp.), Snare Drum (S. D.), Bass Drum (B. D.), Cymbals (Cym.), Xylophone (Xyl.), Maracas (Mar.), Piano (Pno.), and Contrabass (Cb.). The score is written in a key signature of two flats (B-flat and E-flat) and a common time signature (C). The music is arranged in five-measure blocks. The Piccolo, Flutes, Oboes, and Trumpets 1 and 2 have rests in the first four measures and play in the fifth. The Clarinets, Bass Clarinet, Bassoon, Saxophones, Horns 1 and 2, Trombones 1 and 2, Euphonium, and Tuba play a rhythmic pattern of eighth notes throughout. The Piano and Contrabass play a steady accompaniment. The Snare Drum, Bass Drum, and Cymbals are marked with a double bar line and a vertical line, indicating they are silent. The Xylophone and Maracas play a rhythmic pattern. The word 'unis.' is written above the Trumpet 1 and 2 staff in the fifth measure.

This page of a musical score contains measures 342, 343, and 344. The score is for a large orchestra and woodwind section. The instruments listed on the left are: Piccolo (Picc.), Flute 1 & 2 (Fl. 1, 2), Oboe 1 & 2 (Ob. 1, 2), English Horn (Es. Cl.), Clarinet 1 (Cl. 1), Clarinet 2 & 3 (Cl. 2, 3), Bass Clarinet (B. Cl.), Bassoon (Bsn.), Soprano Saxophone (Sop. Sax.), Alto Saxophone 1 & 2 (Alto Sax. 1, 2), Tenor Saxophone (T. Sax.), Bass Saxophone (B. Sax.), Trumpet 1 & 2 (Tpt. 1, 2), Horn 1 & 2 (Hn. 1, 2), Horn 3 & 4 (Hn. 3, 4), Trombone 1 & 2 (Tbn. 1, 2), Bass Trombone (B. Tbn.), Euphonium (Euph.), Tuba (Tba.), Timpani (Timp.), Snare Drum (S. D.), Bass Drum (B. D.), Cymbals (Cym.), Xylophone (Xyl.), Maracas (Mar.), Piano (Pno.), and Contrabass (Cb.).

Measure 342 begins with a Piccolo part marked *ff*. Measure 343 continues with various woodwind and brass parts, including a Tuba part marked *ff*. Measure 344 features a complex woodwind section with Piccolo, Flutes, Oboes, English Horns, Clarinets, and Bassoons, all marked *ff*. The Horns and Trombones also have parts in this measure, with some marked *ff* and others with *gliss.* (glissando) markings. The Piano part in measure 344 is marked *ff*. The Contrabass part in measure 344 is marked *ff*.

346

Picc.
Fl. 1, 2
Ob. 1, 2
E♭ Cl.
Cl. 1
Cl. 2, 3
B. Cl.
Bsn.
Sop. Sax.
Alto Sax. 1, 2
T. Sax.
B. Sax.
Tpt. 1, 2
Hn. 1, 2
Hn. 3, 4
Tbn. 1, 2
B. Tbn.
Euph.
Tba.
Timp.
S. D.
B. D.
Cym.
Xyl.
Mar.
Pno.
Cb.

349

Picc.
 Fl. 1, 2
 Ob. 1, 2
 Eb Cl.
 Cl. 1
 Cl. 2, 3
 B. Cl.
 Bsn.
 Sop. Sax.
 Alto Sax. 1, 2
 T. Sax.
 B. Sax.
 Tpt. 1, 2
 Hn. 1, 2
 Hn. 3, 4
 Tbn. 1, 2
 B. Tbn.
 Euph.
 Tba.
 Timp.
 S. D.
 B. D.
 Cym.
 Xyl.
 Mar.
 Pno.
 Cb.

353

Picc.

Fl. 1, 2

Ob. 1, 2

Eng. Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Tpt. 1, 2

Hn. 1, 2

Hn. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timp.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

Cb.

CHAPTER 4 – CONCEPTS USED IN *PRIMARY, SECONDARY, TERTIARY*

Primary, Secondary, Tertiary (PST) is an original piece for symphonic band in which I deliberately applied techniques analyzed from Torke's works. Each of the three distinct sections is derived from techniques used in Torke's *Ecstatic Orange*, *The Yellow Pages*, and *Bright Blue Music*. While there are marked differences between each section, I was able to achieve unity and continuity through unified motives and motive variation, rhythmic canon, sectioning as basis of form, and stratification.

Similar to *Ecstatic Orange* and *Bright Blue Music*, the foundation of the principle rhythmic motive in *PST* is based upon the 16th note and is established in the first measure with a tutti rhythmic figure and then recycled in various forms throughout the work. Musical Example 44 shows a split score of the first two measures of *PST*. This rhythmic motive is the basis of motivic structure for the entire piece. Variations of the principal motive comprise most of the remaining motivic material.

I used the figure of four consecutive 16th-notes, as well as the first variation of the principal motive, as the primary vehicle of motion of the piece. The 16th notes are broken up throughout the woodwinds starting at m. 5 in Musical Example 45. This moment establishes the motion found during throughout the entire piece. Immediately following this moment, I introduced of the first melodic material and the technique

employed is similar to Torke's subtractive and additive process. Musical Example 46 at m. 9 features a three 16th-note variation of the principal motive, gradually adding the other notes to complete the motive as seen in Musical Example 47.

The image displays a detailed musical score for a large ensemble, specifically focusing on the opening motive of three parts: Primary, Secondary, and Tertiary. The score is presented in a split format, with various instruments and sections arranged across multiple staves. The instruments listed include Piccolo, Flute 1, 2, Oboe 1, 2, Clarinet in Bb, Clarinet in Eb 1, Clarinet in Eb 2, Bass Clarinet in Eb, Bassoon, Soprano Saxophone, Alto Saxophone 1, 2, Tenor Saxophone, Baritone Saxophone, Trumpet in Bb 1, 2, Horn in F 1, 2, Horn in F 3, 4, Trombone 1, 2, Bass Trombone, Euphonium, Tuba, Trombone, Snare Drum, Bass Drum, Cymbals, Xylophone, Marimba, Piano, and Contrabass. The score is written in 4/4 time and features a complex rhythmic pattern of sixteenth notes, with dynamic markings such as *f* (forte) and *mf* (mezzo-forte) indicating the intensity of the playing. The notation includes various musical symbols such as clefs, time signatures, and note values, all arranged in a clear and organized manner.

Musical Example 44: Opening Motive of *Primary, Secondary, Tertiary* (Split Score)

Piccolo

Flute 1, 2

Oboe 1, 2

Clarinet in E♭

Clarinet in B♭ 1

Clarinet in B♭ 2

Bass Clarinet in B♭

Bassoon

Soprano Saxophone

Alto Saxophone 1, 2

Tenor Saxophone

Musical Example 45: Sixteenth Note Vehicle of Motion

Trumpet in B♭ 1, 2

Horn in F 1, 2

Horn in F 3, 4

Musical Example 46: Melodic Motive in Trumpets and Horns mm. 9-11

The musical score consists of three staves. The top staff is for Trumpet in Bb 1, 2, the middle for Horn in F 1, 2, and the bottom for Horn in F 3, 4. The key signature has one flat (Bb). The time signature is not explicitly shown but appears to be 4/4. The first measure shows the Horn 3, 4 part with a rhythmic motif of eighth notes. The second and fourth measures show all three parts with a more complex rhythmic motif involving eighth and sixteenth notes. The third measure shows rests for all parts.

Musical Example 47: Additive Process to Complete the Original Rhythmic Motive

mm.12-15

The breaking of the original motive is another use of variation throughout the woodwinds at m. 31 in Musical Example 48. The principal motive is segmented in halves and distributed between the instruments. I chose this for two reasons: first to add a new texture and secondly to keep the motion established at m. 5. Near the end of “Primary” a rhythmic variation of the motive appears in the woodwinds at m. 94. As shown in Musical Example 49, the motive shifts toward the front of the measure by the duration of a 16th-note and an added 8th-note indicates an additive process. The final variation found in “Primary” occurs at the end of the section. Musical Example 50 shows a subtractive process at mm. 101-108. Here the subtractive process emphasizes the tutti woodwind hits to bring the section to an end.

This musical score shows the woodwind and saxophone sections from measures 32 to 34. The instruments are arranged vertically from top to bottom: Piccolo, Flute 1, 2, Oboe 1, 2, Clarinet in E♭, Clarinet in B♭ 1, Clarinet in B♭ 2, Bass Clarinet in B♭, Bassoon, Soprano Saxophone, Alto Saxophone 1, 2, Tenor Saxophone, and Baritone Saxophone. The key signature is B-flat major (two flats). The time signature changes from 4/4 to 3/4 at measure 33 and back to 4/4 at measure 34. A dynamic marking of *f* (forte) is present at the beginning of each staff. The Piccolo, Flute 1, 2, Oboe 1, 2, and Clarinet in E♭ parts feature melodic lines with slurs and accents. The Clarinet in B♭ 1, Clarinet in B♭ 2, Bass Clarinet in B♭, Bassoon, Tenor Saxophone, and Baritone Saxophone parts play a rhythmic accompaniment of eighth notes. The Soprano and Alto Saxophone parts play a melodic line similar to the Clarinet in E♭. Measure numbers 32, 33, and 34 are indicated at the top of the score.

Musical Example 48: Breaking of the Motive Through the Woodwinds

Piccolo

Flute 1, 2

Oboe 1, 2

Clarinet in Eb

Clarinet in Bb 1

Clarinet in Bb 2

Bass Clarinet in Bb

The image shows a musical score for woodwinds and piccolo. It consists of seven staves, each with a label on the left. The top staff is for Piccolo, followed by Flute 1, 2, Oboe 1, 2, Clarinet in Eb, Clarinet in Bb 1, Clarinet in Bb 2, and Bass Clarinet in Bb. The music is in 4/4 time and features a complex rhythmic pattern with many slurs and accents. The key signature has two flats (Bb and Eb).

Musical Example 49: *PST* mm. 94-95

Piccolo

Flute 1, 2

Oboe 1, 2

Clarinet in Eb

Clarinet in Bb 1

Clarinet in Bb 2

Bass Clarinet in Bb

Musical Example 50: Final Variation at the End of “Primary”

The opening rhythmic statement of “Secondary”, introduced in the piano at m. 114, is the original motive rhythmically inverted, as seen below in Musical Example 51. The “Secondary” motive is restated and varied by an additive and subtractive

Piano

Musical Example 51: Opening Rhythmic Statement of “Secondary”

process as well as a phasing of the placement of the rhythms on the beat. In Musical Example 52 the subtractive technique can be easily seen as the original “Secondary” motive is played in the first measure and the 8th-note durations are removed from the motive in the second measure. The third measure replaces the 8th-notes, adds an 8th-note at the end of the motive and also shifts the 16th-notes toward the back of the measure by a duration of a 16th-note. The fourth measure keeps the last 8th-note, but removes the others.

1. 2. 3. 4.

Clarinet in B \flat 1

Musical Example 52: Subtractive Process at mm. 126-129

Similar to Torke’s phasing of the rhythmic figure technique in Musical Example 53, m. 142-148 shows a phasing process in “Secondary.” The difference between the two is a meter change at m. 144, which facilitates the phasing of the 16th-note motive across the beat. Another Torke concept used is an accompanying pattern supporting consecutive 16th-notes, as found in *The Yellow Pages*. In Musical Example 54 the lower brass supports the 16th-notes of the xylophone and marimba at mm.154-156, which also alters the rhythmic pulse in this moment.

Clarinet in Eb 

Musical Example 53: Phasing Process in “Secondary” mm. 142-148



Musical score for Musical Example 54, showing lower brass instruments (Trombone 1, 2, Bass Trombone, Euphonium, Tuba) and percussion (Timpani, Snare Drum, Bass Drum, Cymbals, Xylophone, Marimba) supporting the Xylophone and Marimba. The score is in 4/4 time and features a phasing process in the secondary section (mm. 142-148). The lower brass instruments provide harmonic support, while the percussion instruments provide rhythmic accompaniment. The Xylophone and Marimba play a melodic line with a phasing process.

Musical Example 54: Lower Brass Support of Xylophone and Marimba at mm. 154-156

In “Tertiary” the meter change alters the smallest duration of a note from a 16th to an 8th. Musical Example 55 features the original rhythmic motive, in an augmented form, performed in the alto saxophones and trombones, while the accompaniment subdivides the beat into 8th-notes. Additionally at m.250 the motive undergoes a phasing process

The musical score for Musical Example 55, measures 244-246, is presented in 12/8 time. It features ten staves for various instruments: Flute 1, 2; Oboe 1, 2; Clarinet in E \flat ; Clarinet in B \flat 1; Clarinet in B \flat 2; Bass Clarinet in B \flat ; Bassoon; Soprano Saxophone; Alto Saxophone 1, 2; and Tenor Saxophone. The Flute, Oboe, and Clarinet in E \flat parts play a melodic line with eighth notes and rests. The Clarinet in B \flat 1 part plays a rhythmic pattern of eighth notes. The Clarinet in B \flat 2 part plays a rhythmic pattern of eighth notes. The Bass Clarinet in B \flat and Bassoon parts play a rhythmic pattern of eighth notes. The Soprano Saxophone part is silent. The Alto Saxophone 1, 2 part plays a rhythmic pattern of eighth notes. The Tenor Saxophone part plays a rhythmic pattern of eighth notes.

Musical Example 55: “Tertiary” mm. 244-246

in the piccolo, flutes, and trumpets, shifting towards the back of the measure by an 8th.

The accompaniment also plays the 8th-note version of the motive and variations of the 8th-note motive (see Musical Example 56).

The image displays a musical score for Musical Example 56, starting at measure 251. The score is written for a large ensemble and consists of 14 staves. The instruments listed are: Piccolo (Picc.), Flutes 1 and 2 (Fl. 1, 2), Oboes 1 and 2 (Ob. 1, 2), Eb Clarinet (Eb Cl.), Clarinet 1 (Cl. 1), Clarinets 2 and 3 (Cl. 2, 3), Bass Clarinet (B. Cl.), Bassoon (Ban.), Soprano Saxophone (Sop. Sax.), Alto Saxophones 1 and 2 (Alto Sax. 1, 2), Tenor Saxophone (T. Sax.), Bass Saxophone (B. Sax.), Trumpets 1 and 2 (Tpt. 1, 2), Horns 1 and 2 (Hn. 1, 2), and Horns 3, 4 (Hn. 3, 4). The key signature is B-flat major (two flats). The Piccolo, Flutes, and Trumpets parts feature a melodic line with eighth-note patterns. The Oboes and Eb Clarinet parts play a rhythmic accompaniment of eighth notes. The Clarinets, Bass Clarinet, Bassoon, Alto Saxophones, Tenor Saxophone, and Bass Saxophone parts are marked with a long dash, indicating they are silent in this passage. The Horns 1 and 2 parts play a rhythmic accompaniment of eighth notes, while the Horns 3 and 4 parts play a similar pattern.

Musical Example 56: 8th-note Version of Motive and Variations at m. 251

Rhythmic Canon and Rhythmic Entrance

In *Primary*, *Secondary*, *Tertiary* there are moments where I used Torke's rhythmic canon techniques. An occurrence of RES(16) of 1-2-4-6 takes place at m. 23 below in the trumpets and horns, providing texture to the passage. Each number indicated represents the duration of 16th-note on the attack. In Musical Example 58 I took the RES concept and changed the proportion to create a moment of an RES(16) of 1-2-3-4. With this proportion the attack of each entrance occurs on the duration of a 16th-note across the span of one beat. Again, each number indicated represents the duration of 16th-note on the attack.

The image shows a musical score for three instruments: Trumpet in B♭ 1, 2; Horn in F 1, 2; and Horn in F 3, 4. The score is in 3/4 time and one flat key signature. The trumpet part has a rhythmic canon with durations of 4 and 6 sixteenth notes indicated. The horn parts have a rhythmic canon with durations of 1 and 2 sixteenth notes indicated. The dynamic marking is mezzo-piano (mp).

Musical Example 57: "Primary" mm. 23-25 RES(16) 1-2-4-6

Fl. 1, 2

Ob. 1, 2

E♭ Cl.

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Musical Example 58: “Primary” mm. 51-52 RES(16) of 1-2-3-4

An example of RCS(16) 1-2-4-8 takes place at m. 69 across the woodwinds in Musical Example 59. Here the canon is established in the upper woodwinds and cascades through the section gradually picking up all the woodwinds as it progresses. I wrote this

as a textural addition to the piece and it coincides with a significant moment of “Primary”, which will be discussed in the next section.

The image shows a musical score for four instruments: Flute 1 & 2, Oboe 1 & 2, E-flat Clarinet, and Clarinet 1. The score is in 4/4 time and features a dynamic marking of *mp* (mezzo-piano). The Flute part begins with a melodic line in the first measure, followed by a rest in the second measure, and then a more complex rhythmic pattern in the third measure. The Oboe part has a rest in the first two measures and then enters in the third measure with a melodic line. The E-flat Clarinet part has a rest in the first two measures and then enters in the third measure with a melodic line. The Clarinet part has a rest in the first two measures and then enters in the third measure with a melodic line. The score is divided into two systems by a vertical bar line. The first system contains the first two measures, and the second system contains the third measure. The Flute part has a box around the first measure of the second system with the number 4 above it. The Oboe part has a box around the first measure of the second system with the number 1 above it. The Clarinet part has a box around the first measure of the second system with the number 8 above it. The E-flat Clarinet part has a box around the first measure of the second system with the number 2 above it.

Musical Example 59: RCS (16) of 1-2-4-8 in “Primary” at m. 69

Primary, Secondary, Tertiary

Measure Number	Total
1-8	8
9-16	7
17-22	5
23-26	3
27-30	3
31-45	14
46-59	13
60-67	7
68-79	11
80-85	5
86-93	7
94-111	17
112-125	13
126-133	7
134-137	3
138-141	3
142-148	6
149-159	10
160-163	3
164-169	5
170-182	12
183-194	11
195-202	7
203-213	10
214-237	23
238-243	5
244-249	5
250-254	4
255-261	6
262-290	28
291-304	13
305-311	6
312-318	6
319-325	6
326-334	8
335-343	8
344-357	13

Chart 5: Sectioning of *Primary, Secondary, Tertiary*

As far as sectioning is concerned, I considered size as I did in the analysis of the Torke pieces. The delineation of a section in *PST* is determined by change of texture, dynamics, meter, or orchestration. The first noticeable difference is the larger number of sections in the entirety of the piece. In *PST* there are 37 sections across all three portions with an average of 8.7 measures per section. The largest section features 28 measures, and the smallest section is three and this occurs four times. Comparatively it aligns more with *Bright Blue Music* and its 7.9 measures per section. I was intentional in the

sectioning of *PST* as I used *Bright Blue Music* as the main source of inspiration throughout. Chart 5 shows a visual representation of all the sections of *PST*.

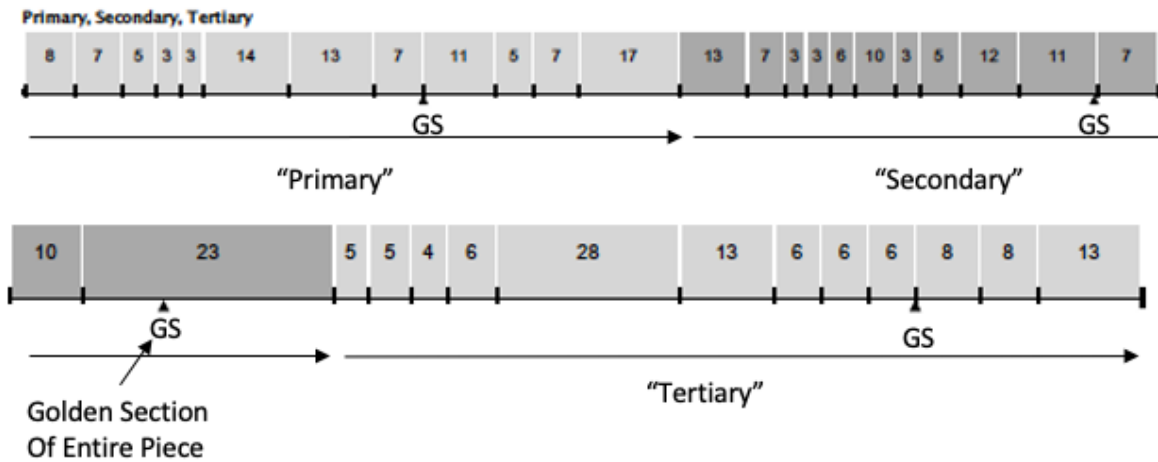


Chart 6: Sections of *PST* and Location of Golden Sections

The Golden Section and Stratification

In my analysis of Torke’s pieces, I found it interesting to identify the musical material occurring at the golden section within each piece, as discussed above. With this in mind, I sought out the golden section of my own work to identify any significance. I found the golden section of the entire piece occurs at m. 214 and coincides with the ending of “Secondary.” Here the main motive is repeated while instruments are gradually added until the entire ensemble is playing the tutti figure. Due to the three-part nature of the piece, each area has its own golden section as well. In the “Primary” area the golden

section occurs at m. 68 with the RCS(16) 1-2-4-8 in the woodwinds. The “Secondary” golden section takes place at m. 182 with a break of rest before the introduction of a new variation of the motive, setting up the ending of “Secondary.” Finally, the golden section of “Tertiary” aligns with the initial statement of the rhythmic motive at m. 326. Chart 5 above displays the position of all four moments of the golden section within *Primary*, *Secondary*, *Tertiary*.

Stratification plays a large part of the structure of *Primary*, *Secondary*, *Tertiary*. The following pages of examples demonstrates this in the full score. Musical Example 60 shows the distinct areas of rhythmic movement between the woodwinds, upper brass, and lower brass/percussion at mm. 18-21, as does Musical Example 61. At mm. 170-174 there are four different rhythmic patterns occurring simultaneously through the score, this time in the upper woodwinds, saxophones, brass and contrabass, and mallet percussion (see Musical Example 62). Finally, Musical Example 63 shows three levels of stratification in “Tertiary” at mm. 327-331 throughout the entirety of the score.

My intent in writing *Primary*, *Secondary*, *Tertiary* was to employ the techniques analyzed from the Torke pieces, while still maintaining my own voice. The goal was to create a piece in his style without sounding like an imitation or an obvious copy. While I did employ techniques used by Torke in his own pieces, I feel I was able use them in my own way. Of the three pieces I decided to model my approach based upon *Bright Blue Music*. One of the most compelling lessons I learned in this process is the mathematical foundation of Torke’s technique. In my phone conversation he admitted to the use of

mathematics in his writing.¹⁶ I found this is to be most evident in his use of rhythmic canon and this was something I kept in mind while composing my own piece.

Throughout this entire process I learned there are many layers of complexities in Michael Torke's compositions. While these layers are sometimes subtle, such as the rhythmic variation of established motives, there are some that are not as subtle. Torke's use of rhythmic canon and rhythmic entrance create the movement and texture that has become a signature of his compositional styling. With the employment of the Rhythmic Canon Sequence and Rhythmic Entrance Series used in this thesis, the notating of these concepts is more streamlined and organized. This methodology could also be used to determine the rhythmic sequences in other canons and similar rhythmic musical features.

Torke's hybridization of classical technique and pop/jazz rhythmic influence in these pieces established the composer's compositional style early in his career. He has since expanded upon his style and has become a prolific and popular American composer. The music of Michael Torke remains rhythmically centered, but through his expert crafting of motive, variation, and rhythmic canon and entrance, he creates compositions full of dynamism and energy. My research only begins to analyze the rhythmic compositional techniques of Michael Torke. I look forward to more researchers exploring and analyzing his music in the future.

¹⁶ Michael Torke, Interview by author, Selinsgrove, November 5, 2020.

Musical score for Musical Example 60, showing orchestration from mm. 18-21. The score includes parts for Percussion, Flutes (Fl. 1, 2), Oboes (Ob. 1, 2), Clarinets (Cl. 1, 2), Bassoon (B. Cl.), Bassoon (Bsn.), Saxophones (Sop. Sax., Alto Sax. 1, 2, T. Sax., B. Sax.), Trumpets (Tpt. 1, 2), Horns (Hr. 1, 2, Hr. 3, 4), Trombones (Tbn. 1, 2, B. Tbn.), Tuba (Tba.), Euphonium (Euph.), Timpani (Timp.), Drums (Dr.), Cymbals (Cym.), Xylophone (Xyl), Maracas (Mar.), Piano (Pno), and Cello (Cb.).

Musical Example 60: Stratification Shown at mm. 18-21 “Primary”

68

Picc.

Fl. 1, 2

Ob. 1, 2

Cl. 1

Cl. 2, 3

B. Cl.

Bsn.

Sop. Sax.

Alto Sax. 1, 2

T. Sax.

B. Sax.

Trp. 1, 2

Trp. 3, 4

Tbn. 1, 2

B. Tbn.

Euph.

Tba.

Timps.

S. D.

B. D.

Cym.

Xyl.

Mar.

Pno.

68

Cb.

Musical Example 61: Stratification Between Woodwinds, Brass and Contrabass, and

Mallet Percussion at mm. 68-73

172

Picc.
 Fl. 1, 2
 Ob. 1, 2
 Cl. 1
 Cl. 2, 3
 B. Cl.
 Bsn.
 p. Sax.
 A. Sax. 1, 2
 T. Sax.
 B. Sax.
 vl. 1, 2
 va. 1, 2
 vc. 1, 2
 db. 1, 2
 B. Trbn.
 Trbn. 3
 Tbn.
 Timp.
 S. D.
 B. D.
 Cym.
 Xyl.
 Mar.
 Pno.
 cb.

Musical Example 62: Stratification at mm. 172-174

1
 Picc.
 Fl. 1, 2
2
 Ob. 1, 2
 Id. Cl.
 Cl. 1
 Cl. 2, 3
3
 B. Cl.
 Bass
 Sop. Sax.
 Alto Sax. 2
2
 T. Sax.
 B. Sax.
 Tpt. 1, 2
1
 Trb. 1, 2
 Trb. 3, 4
2
 Tbn. 1, 2
 B. Tbn.
3
 Euph.
 Tba.
 Trp.
 S. D.
 B. D.
 Cym.
3
 Xyl.
3
 Mar.
2
 Toms.
3
 Ch.

Musical Example 63: Three Levels of Stratification at mm. 327-331 in “Tertiary”

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VITA

A native of Rockford, Illinois, Aaron E. Fast attended VanderCook College of Music, Chicago in 1991 and subsequently transferred to the University of Illinois at Urbana-Champaign. In 1995 he left Illinois and joined the Marine Corps as a bassist. During his eleven-year Marine Corps career, Aaron had the opportunity to perform at many high-level events worldwide, including for President Clinton and other heads of state. While in the Marine Corps, he also attended the Navy School of Music's Arranger's Course, learning how to arrange for small ensembles, big bands, and concert bands. Upon leaving the Marine Corps, Aaron enlisted in the Army performing duties in the same capacity, but with higher levels of responsibility. The largest portion of his Army career was spent with the 101st Airborne Division at Fort Campbell, Kentucky, where he was in charge of the jazz combo and rock band and acted as the Drum Major. In 2013 he deployed to Bagram Air Base, Afghanistan in support of Operation Enduring Freedom XIV.

Upon retirement in 2016, Aaron continued to pursue his degree at Susquehanna University in Selinsgrove, Pennsylvania and graduated with a Bachelor of Music in Composition in May 2018. He is currently a candidate for Master of Music in Theory/Composition at Stephen F. Austin State University.

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The style guide for this document was *A Manual for Writers of Research Papers, Theses, and Dissertations* by Kate L. Turabian (9th Edition)

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