TOCCATA, REPETITION, AND MODE IN STEPHEN PAULUS'S COMPLETE ORGAN WORKS

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ABSTRACT

Composer Stephen Paulus produced ten solo organ works during his active career: *The Triumph of the Saint, Meditations on the Spirit, Three Temperaments, Paean, Toccata, Triptych, King David's Dance, Organic Romp, Blithely Breezing Along,* and *A Refined Reflection.* Paulus gave his works distinctly varied programmatic titles, but this document, a survey of his complete organ works, reveals numerous commonalities in compositional construction, mode, and form. Paulus's extensive use of toccata figuration and repetition creates a common aesthetic. With regard to his tonal language, Paulus's use of mode and the constant shifting from one pitch center to another is revealed. In addition, this document presents a complete modal analysis of *A Refined Reflection*, showing that Paulus's employment of toccata figuration, repetition, and extensive use of mode affect the form of the piece. Large arch forms and the characteristic sound of perpetual movement are recognizable hallmarks not only of this piece but of all his organ works.

DEDICATION

This document is dedicated to Donald Sutherland, organist, master teacher, mentor, and friend. Without Donald's support and guidance, I would never have completed my work at the University of Alabama.

ACKNOWLEDGMENTS

I am pleased to have this opportunity to thank Dr. Thomas Robinson for the many meetings and hours of work toward the completion of this document. He graciously treated me like I was one of his own music theory majors, and without his help and guidance, this document would have never been realized. I would like to thank Dr. Linda Cummins for her never-ending work as adviser and counselor to the graduate students of the School of Music. Thank you to my committee members for their invaluable input, questions, and quest for excellence at the University of Alabama. I would like to thank Mark Risinger for his editing of this document, to whom I am most grateful. Thank you to my friends, family, and colleagues for support throughout this entire process of personal growth, learning, and development at the University of Alabama. Finally thank you to Andrew Risinger, my partner, for being the source of constant love, support, and encouragement in all things.

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INTRODUCTION

Prolific American composer Stephen Paulus wrote in numerous musical genres and composed over 200 works. His catalog of works includes 150 choral pieces, which have been performed by major choruses throughout America, Europe, and Asia. Paulus also premièred four operas and has written works for orchestra, chamber ensemble, piano, guitar, harp, solo voice, and organ. He served as composer-in-residence with the Minnesota Orchestra, the Atlanta Symphony Orchestra, the Tucson Symphony Orchestra, and the Dale Warland Singers. He cofounded the Minnesota Composers Forum in 1973 with Libby Larsen.[1] On July 4, 2013, Stephen Paulus suffered a severe stroke, and his long-term prognosis was uncertain for over a year. He died October 19, 2014.

Paulus produced ten solo organ works during his active composing career: *The Triumph of the Saint, Meditations on the Spirit, Three Temperaments, Paean, Toccata, Triptych, King David's Dance, Organic Romp, Blithely Breezing Along,* and *A Refined Reflection*. Despite the variety suggested by their programmatic titles, Paulus' organ works are strikingly similar in

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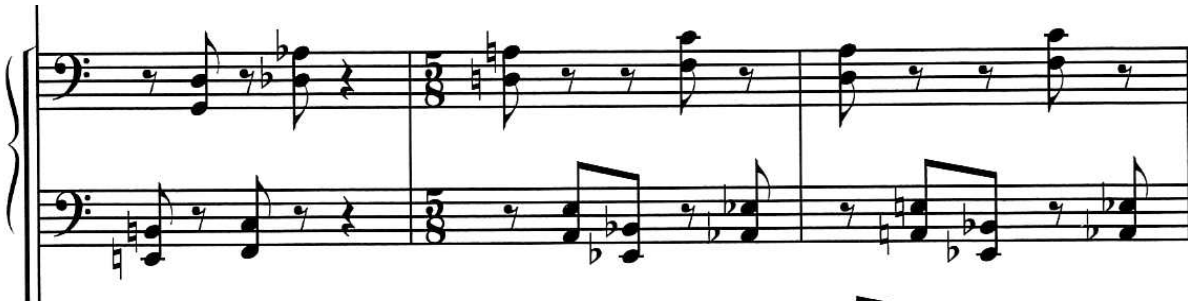
[1] Marilyn Perkins Biery, *New Music for Organ at the End of the Twentieth Century: A Series on the compositions of six American Composers. V: Stephen Paulus* ("The American Organist" 36, February 2002), pg. 87-88 and Elise Kirk, *"Stephen Paulus" Grove Music Online* http://www.oxfordmusiconline.com:80/subscriber/article/grove/music/42555 and *The Choral Journal,* "Profiles of Five American Composers," Vol. 43, No.8 (March 2003), pg.37 and "Stephen Paulus Health Update." *Stephen Paulus Website* (Accessed October 6, 2014, http://stephenpaulus.com/).

construction and sound due to specific compositional techniques. This document details the treatment of toccata, repetition, and mode used in the organ works of Stephen Paulus, and a concluding analysis illustrates the arch form common to Paulus' organ compositions.

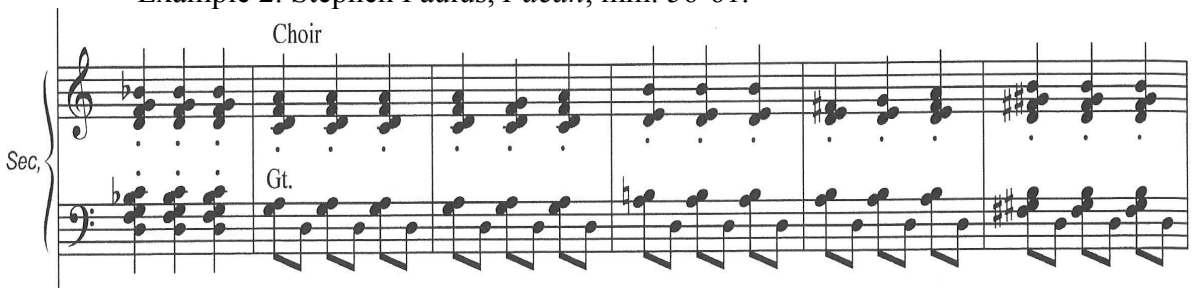
Chapter One explores Paulus's extensive use of toccata figuration and the straightforward repetition of motivic material as major compositional devices employed throughout his organ repertoire. An example of his toccata figuration is shown in Example 1. This excerpt begins with simple alternation between hands and gets more complex as it proceeds.

Example 1. Stephen Paulus, *The Triumph of the Saint*, mm. 38-40.



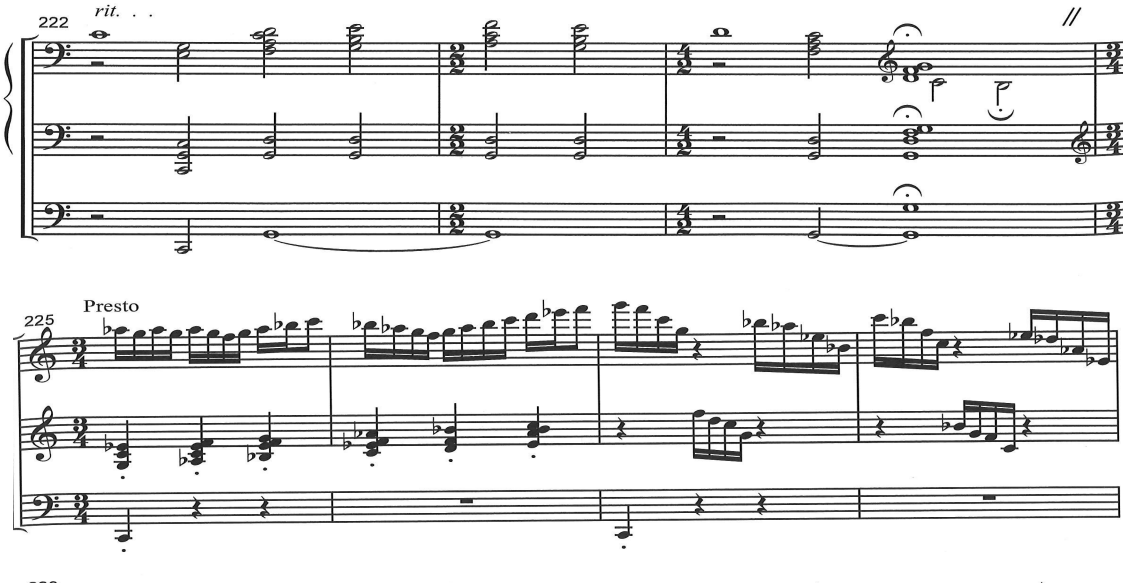
Example 2 contains a clear example of repetition. Such techniques are found universally in his organ works.

Example 2. Stephen Paulus, *Paean*, mm. 56-61.



Chapter Two explores Paulus's extensive use of mode. No key signatures are used in any solo organ work of Stephen Paulus. He instead writes in shifting modes and scales, allowing seamless shifts of pitch center. Measures 222-224 of Example 3 can be understood as being in C-Ionian. In measure 225 of the same example, a sudden shift to C-Aeolian occurs.

Example 3. Stephen Paulus, *King David's Dance*, mm. 222-228.



Chapter Three concludes by looking at the overall form produced by the compositional devices discussed within this document. Paulus's last composition for organ, *A Refined Reflection,* is fully analyzed in terms of modes used and their effects on form. The resulting analysis illustrates the similar form used throughout all ten of Stephen Paulus's solo organ works.

CHAPTER ONE

TOCCATA AND REPETITION

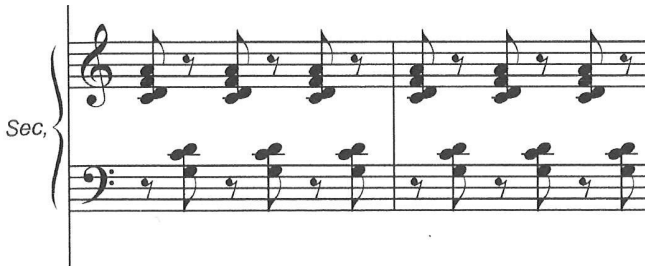
A common compositional aesthetic exists throughout Paulus's organ works. There is an underlying energy, a sense of perpetual motion and excitement that permeates each piece. Even with the varied nature of the programmatic titles given to each composition, the arching similarities among the ten pieces are hard to ignore. Paulus's frequent use of toccata figuration and repetition is always in the foreground of his organ compositions. This chapter surveys selected musical examples of toccata figuration and repetition from Paulus's complete organ works. These examples confirm Paulus's exploitation of common compositional devices, creating a cohesive musical language within his organ compositions.

Toccata figuration can be defined as full chords or pitch clusters that are exchanged back and forth between different hands.[2] Paulus uses this technique to create simple 1-1 toccata patterns or complex toccata patterns, such as 2-1-2. The integers in this notation shall refer to the number of individual attacks in each hand in a given unit of repetition. Paulus exploits this compositional device and integrates some version of toccata figuration into virtually every organ composition.

[2] Willi Apel ed. "Toccata," *Harvard Dictionary of Music* (Cambridge: The Belknap Press, 1969), pg. 853.

Example 4 illustrates toccata figuration located in the secundo organ part of the duet, *Paean* (measures 225-226).[3] In this two-measure excerpt, the right-hand treble-clef pitch cluster {C, D, F, A} alternates with the left-hand bass-clef pitch cluster {G, C, D}. The interlocking rhythm that occurs forms a simple toccata figuration of 1-1. The toccata figuration is paired with staccato quarter-note pitch clusters played by the primo organ. These rhythmic textures create a sense of excitement and forward motion that propels the piece to the next motivic idea.

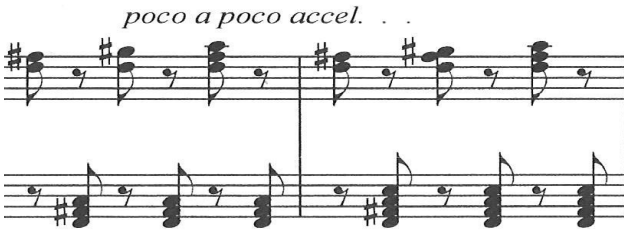
Example 4. Stephen Paulus, *Paean*, mm. 225-226.



Example 5, measures 352-353 of *Paean,* shows toccata figuration used in the primo organ. The toccata figuration occurs between the right- and left-hand and forms a simple 1-1 toccata figuration. Again Paulus uses the texture of toccata figuration to create perpetual forward movement. As in the previous example, quarter-note pitch clusters played by the secundo organ accompany the toccata figuration.

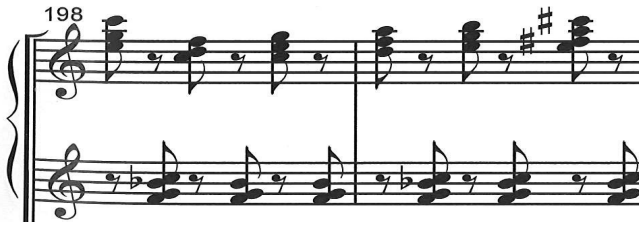
[3] Paulus designates the duet organists as "Primo" organist and "Secundo" organist, instead of the more standard "Secondo." Therefore, in this document, I will use Paulus's spelling throughout.

Example 5. Stephen Paulus, *Paean*, mm. 352-353.



Simple 1-1 toccata figuration is used in another composition, aptly entitled *Toccata.* As can be seen in Example 6, interlocking right- and left-hand pitch sets comprise the toccata figuration. Paulus repeats the left-hand pitch cluster {F, G, B-Flat, C} throughout the example. Paulus uses this toccata figuration in a transitional way: right- and left-hand pitch clusters have contrasting pitch collections, and the toccata figuration is carrying the music forward both rhythmically and texturally.

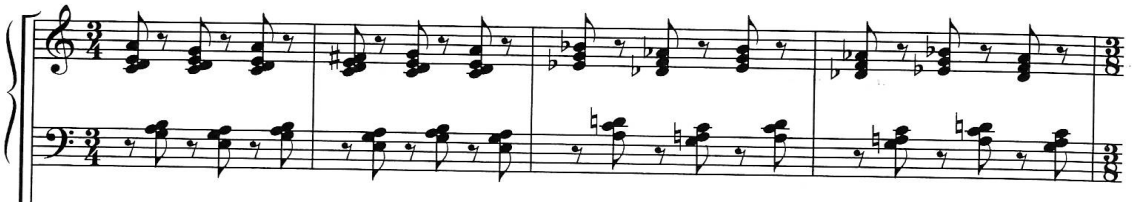
Example 6. Stephen Paulus, *Toccata*, mm. 198-199.



Simple 1-1 toccata figuration appears in the right and left hand of "As If the Whole Creation Cried," the third movement of Paulus' *Triptych.* (See Example 7.) It is interesting to note that Paulus changes modes in only the right hand in m. 158. The right-hand pitches are {E-Flat, G, B- Flat, D-Flat, F, A- Flat}, while the left-hand pitches are {A, C, D, G}. As in the

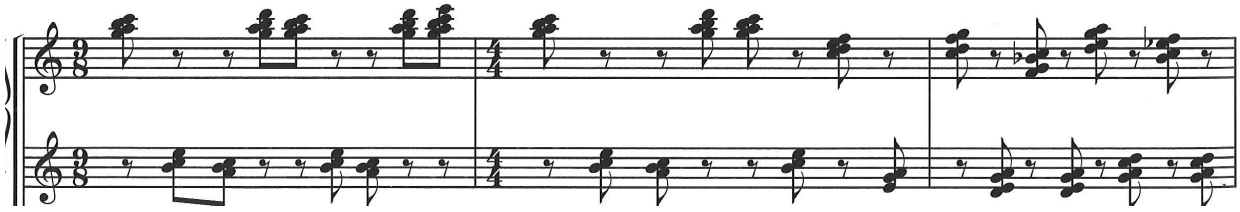
previous example, this toccata figuration is transitional. This particular transition is moving toward the coda of the movement.

Example 7. Stephen Paulus, *Triptych*, "III. As If the Whole Creation Cried," mm. 156-159.



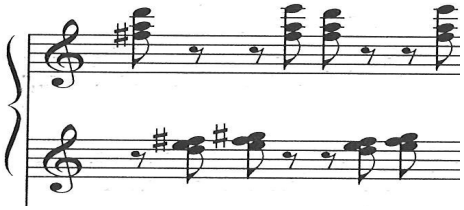
Paulus's use of toccata figuration is not limited to simple 1-1 exchanges. Paulus also uses more complex toccata figuration, where the pitch clusters do not alternate one hand after another. Multiple pitch sets can sound in one hand before the corresponding exchange occurs in the other hand. Example 8 shows measures 65-67, from "Flight and Failure of St. Anthony," and it illustrates a complex toccata figuration of 1-2-2-2-3 that transforms into a simple toccata of 1-1. As is the case for most toccata figuration in Paulus's writing, this complex toccata figuration contributes to a sense of perpetual motion.

Example 8. Stephen Paulus, *The Triumph of the Saint*, "I. Flight and Failure of St. Anthony," mm. 65-67.



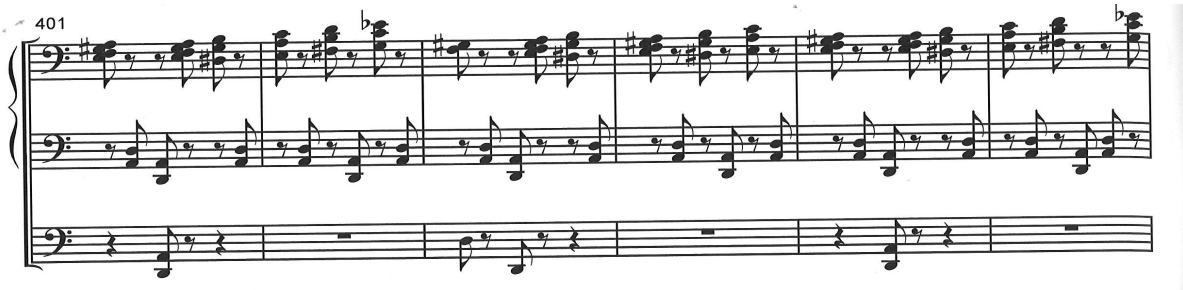
Example 9 is another excellent example. It features complex 1-2-2-1-toccata figuration, coming from "In Triumph," the third movement of *Meditations on the Spirit.* The example isolates measure 191 and begins with pitches {F-Sharp, A, D} located in the right-hand. The toccata figure continues with left-hand {D, E, F-Sharp}, followed by another pitch cluster in the same voice {E, F-Sharp, G- Sharp}, creating the 1-2-2-1 pattern of exchange.

Example 9. Stephen Paulus, *Meditations on the Spirit*, "III. In Triumph," mm. 191.



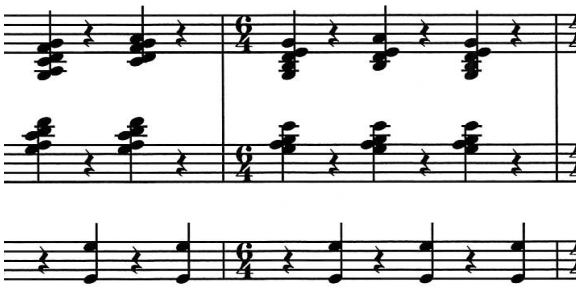
Example 10 presents complex and simple toccata figuration from mm. 401-405 of Paulus' *Toccata.* In measure 401 the first pitch set {E, F, G- Sharp, A} is located in the right-hand and is followed by two pitch sets in the left-hand. The left-hand simply alternates different voicings of the pitch set {A, D} consistently throughout the excerpt. The toccata pattern alternates between a complex 1-2-2-1 and a simple toccata pattern of 1-1.

Example 10. Stephen Paulus, *Toccata*, mm. 401-405.



The examples presented thus far feature eighth-note pitch sets, but other examples of toccata figuration in Paulus' repertoire feature simple quarter notes. In measures 245-246 of *Organic Romp,* Paulus begins the quarter-note simple toccata figuration of 1-1 with both the right- and left-hand sounding pitch cluster {G, A, C, D, F}. (See Example 11.) The hands alternate with a pedal quarter-note G sounding in octaves. The toccata continues with different voicings of the previous pitch cluster presented in the hands, alternating with octave Gs in the pedal bass line. The longer note value of this particular toccata figuration exaggerates the rhythmic and textural makeup of the composition, calling attention to the figuration that serves as a transition into the piece's Coda.

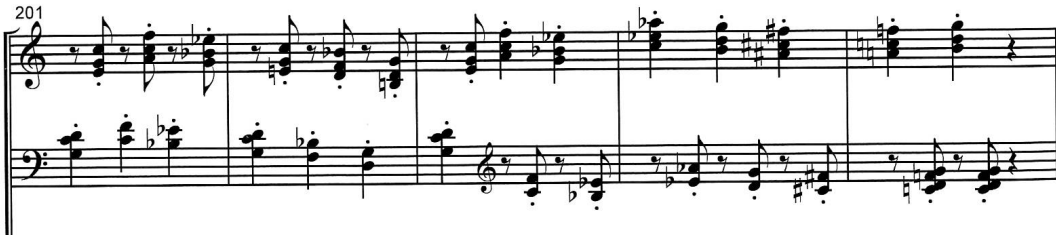
Example 11. Stephen Paulus, *Organic Romp*, mm. 245-246.



Paulus also employs simple 1-1 toccata figuration built upon a combination of eighth- and quarter-note pitch sets. Example 12 illustrates this pattern. Beginning in measure 201 of *Organic Romp* a quarter-note pitch set {G, C, D} alternates with an eighth-note pitch set {E, G, C}. This pattern, quarter-note left-hand pitch sets alternating with eighth-note right-hand pitch sets, continues through the first half of measure 203. On the second beat in measure 203, Paulus begins using quarter-note pitch sets in the right-hand and eighth-note pitch sets in the left-hand. Quarter-note pitch set {A, C, F} interlocks with eighth-note pitch set{C, F}, and the toccata

continues through measure 205. The excerpt is transitional in terms of mode and musical material. The simple 1-1 toccata texture provides texture and moves the music forward to other musical ideas in the composition.

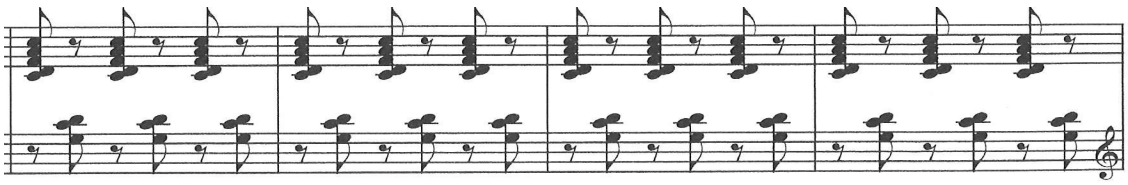
Example 12. *Organic Romp*, mm. 201-205.



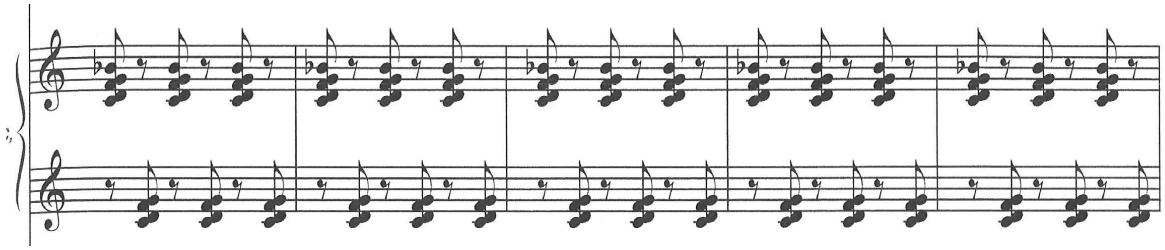
Repetition is a compositional device nearly universal in Paulus's organ repertoire. The repetitions occur in different forms and voices within each piece. He often composes a small musical motif, a short snippet, and repeats the idea multiple times. Usually one or more such musical snippets will recur throughout a given piece, and Paulus uses the recurring motivic ideas as musical foundations that bind the piece together.

Naturally, many of Paulus's pieces exhibit a combination of the above techniques. Repetition of simple 1-1 toccata figures can be found throughout the repertoire, and in most cases Paulus uses the repetition as a device for musical texture. Example 13 highlights the repeated simple toccata figuration found in measures 232-234 of the organ duet *Paean.* Paulus begins with the eighth-note pitch set {C, D, F, A, C} in the right hand. Pitches {G, C, D} follow as an eighth-note pitch set in the left-hand bass clef. This 1-1 toccata is repeated for four measures. In measures 245-249, shown in Example 14, Paulus uses the same formula. Pitch set {C, D, F, G, B-Flat} exchanges with pitch set {C, D, F, G}. Toccata figuration continues throughout the measure and is repeated in the subsequent four measures.

Example 13. Stephen Paulus, *Paean*, mm. 232-234.

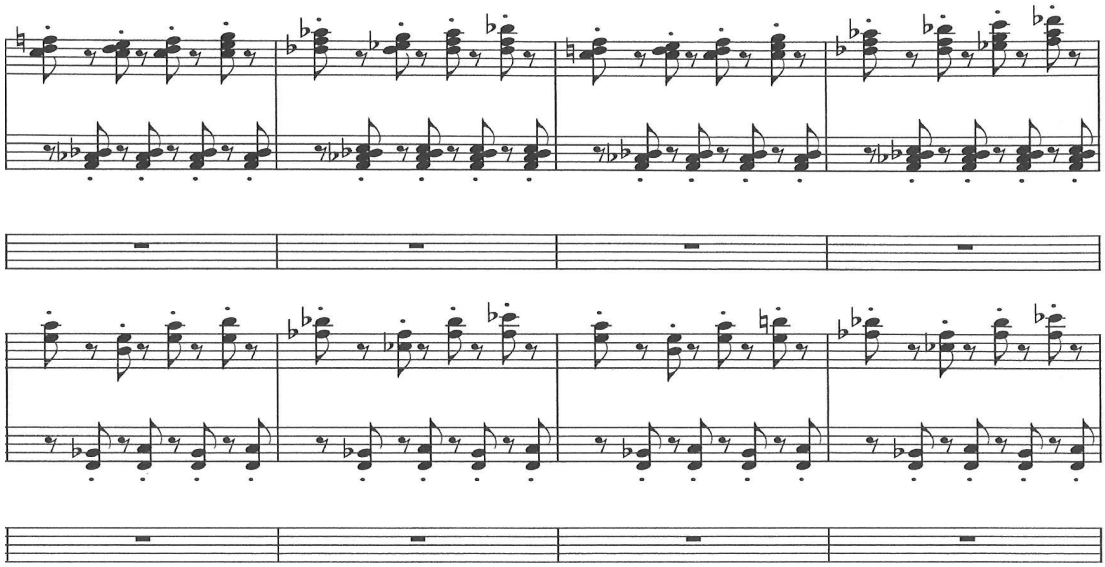


Example 14. Stephen Paulus, *Paean*, mm. 245-249.



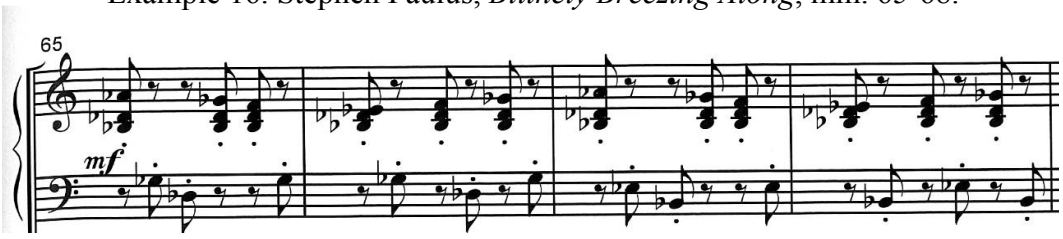
In measures 173-176 of *Paean,* repetition of simple toccata figuration occurs in the right and left hands, of the primo organ and the right and left hands of the secundo organ simultaneously. (See Example 15.) Pitch sets in the right hand of both organ parts sound together and interlock with the pitch sets of the left hand in both organ parts, forming perfect 1-1 toccata figuration. In measure 173, the primo organ's right-hand treble pitches {C, D, F} sound with the secundo organ's right-hand bass pitches {G, C}. The pitches interlock with the primo organ left-hand treble-clef pitches {F, A-Flat, B-Flat}, which sound with the secundo organ left-hand pitches {F, B-Flat}. The pattern continues, forming simple 1-1 toccata figuration that creates excitement and movement seen again and again in Paulus's organ compositions.

Example 15. Stephen Paulus, *Paean*, mm. 173-176.



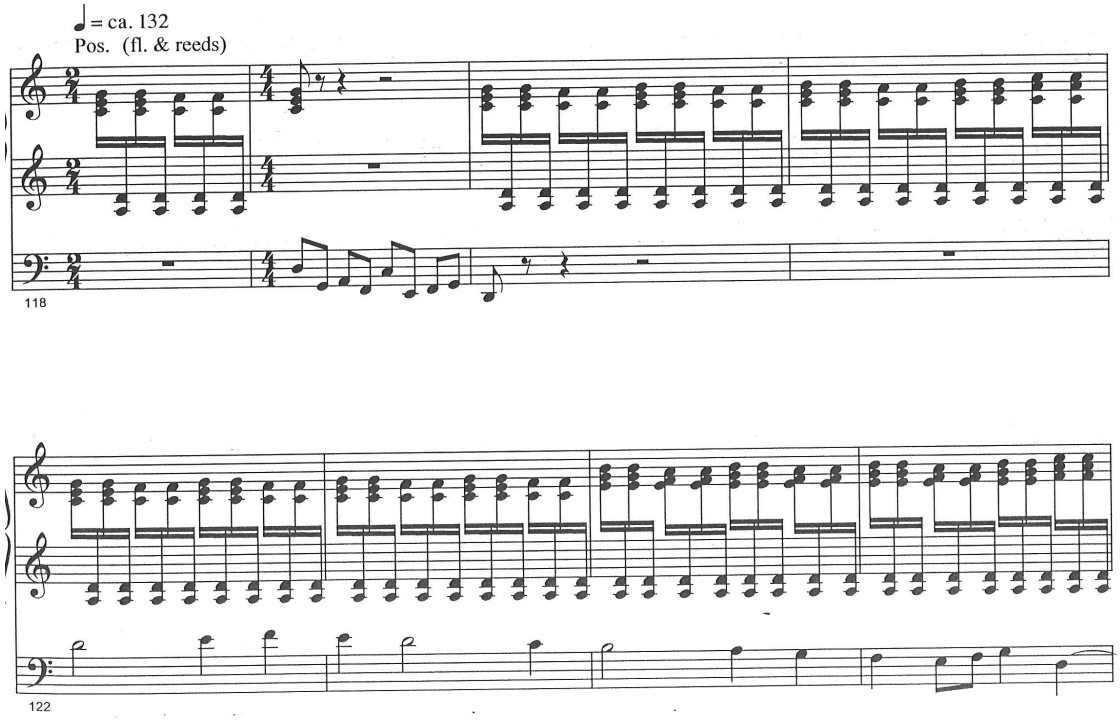
Example 16 illustrates the repetition of complex toccata figuration found in measures 65-68 of *Blithely Breezing Along.* Paulus begins with pitch set {B-Flat, D-Flat, A-Flat} in the treble clef. He exchanges the right-hand pitch set with a single bass-clef note: G-Flat and D-Flat alternately. The single eighth notes are followed by two pitch sets in treble clef, creating a 2-2-toccata figuration followed by more 1-1 exchanges. Paulus repeats measures 65 and 66 in measures 67 and 68, though the left-hand part undergoes slight variation. Toccata figuration throughout *Blithely Breezing Along* is used as a transitional device in which Paulus moves from one mode and motif to another.

Example 16. Stephen Paulus, *Blithely Breezing Along*, mm. 65-68.



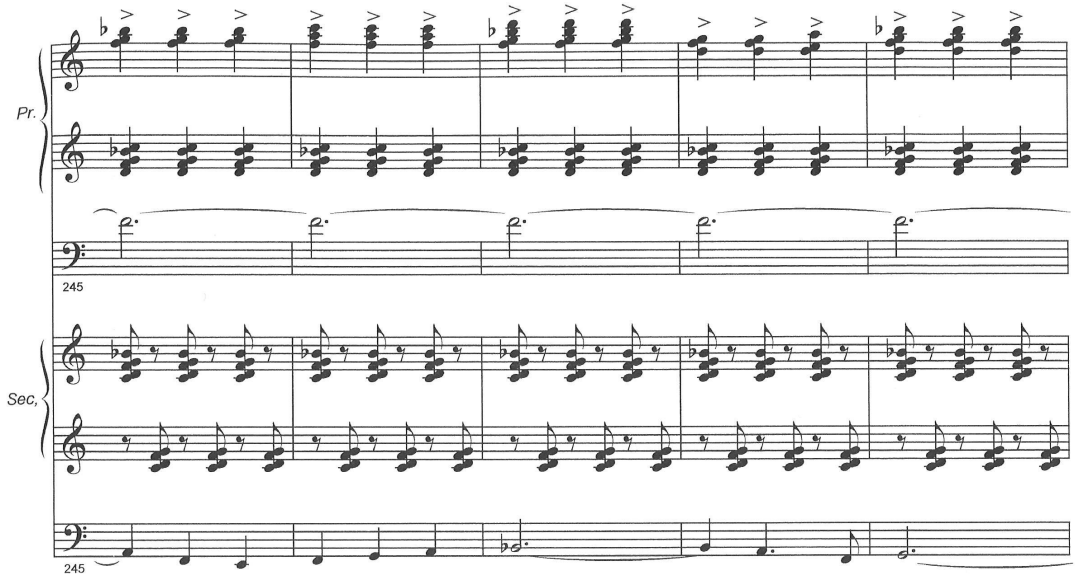
Paulus demonstrates an economical use of material as he employs figuration verging on minimalist techniques in the repetition that occurs in the next example, which comes from "Impassioned," the third movement of *Three Temperaments.* (See example 17.) " Impassioned" resembles the other two movements of the piece. Short rhythmic ideas in various modes are presented and repeated. Repetitions of broken pitch sets alternate in successive sixteenth notes between the right and left hands. In m. 120, left-hand pitches {A, D} alternate with two right-hand pitch collections, {C, E, G} and {F, C}. This half-measure motif is repeated eight times. In measures 124 and 125, the right-hand treble-clef pitch collections change. The left-hand pitch collection of {A, D} remains unchanged while the rhythmic sixteenth-note interlocking continues. This type of minimalist figuration occurs for the next twenty measures of "Impassioned."

Example 17. Stephen Paulus, *Three Temperaments,* "III. Impassioned," mm. 118-125.



Minimalism and economy of material are evident in the repetition found in Example 18, an excerpt from the organ duet *Paean* (measure 245-249). The primo organ's left-hand pitches are repeated in quarter-note pitch clusters throughout the excerpt, while a sustaining pedal tone of F is held for the five measures. Slight changes of pitch clusters occur in the primo organ's right hand, yet only six pitch classes appear in the five-measure excerpt. Alternation of the right- and left-hand eighth-note pitch clusters continues above a moving pedal line in the secundo organ that limits its pitch content to {A, F, E, G, and B-Flat}.

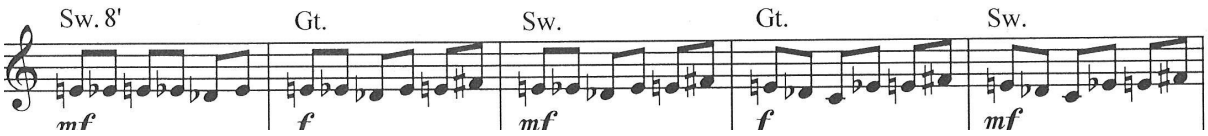
Example 18. Stephen Paulus, *Paean,* mm. 245-249.



Paulus's use of repetition also takes the form of short, single-note lines. Example 19, from *Triptych's* first movement, "Like An Ever-Rolling Stream," contains four pitches {E, E-Flat, D-Flat, F-Sharp}. Linear motion is first introduced in measure 36. The {E, E-Flat, D} pitches and pitch orderings repeat identically in measure 37. Paulus varies the line slightly in measure 38 with a different pitch ordering and introduces an F-Sharp into the linear progression, which is repeated in measure 39. Paulus maintains the same pitches but once again varies the

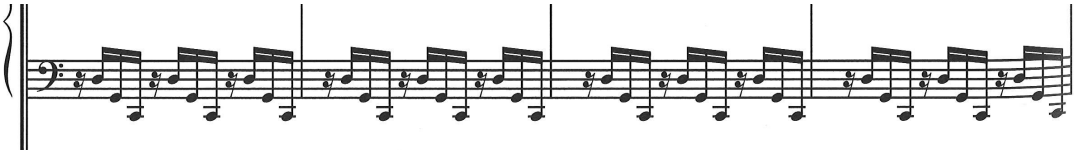
pitch ordering in measure 40 and repeats the material in measure 41. Paulus emphasizes the one-measure repetition by giving specific instructions for dynamics and organ manuals that change in each measure. The linear repetition should be played alternating between a mezzo-forte Swell manual and a forte Great manual. Paulus uses this linear motion as a form of transition from one texture to another. The previous section of the piece consists of repeated thematic material built around eighth-note pitch sets, and the following section features a minimalist toccata figuration.

Example19. Stephen Paulus, *Triptych,* "I. Like an Ever-Rolling Stream," mm. 37-41.



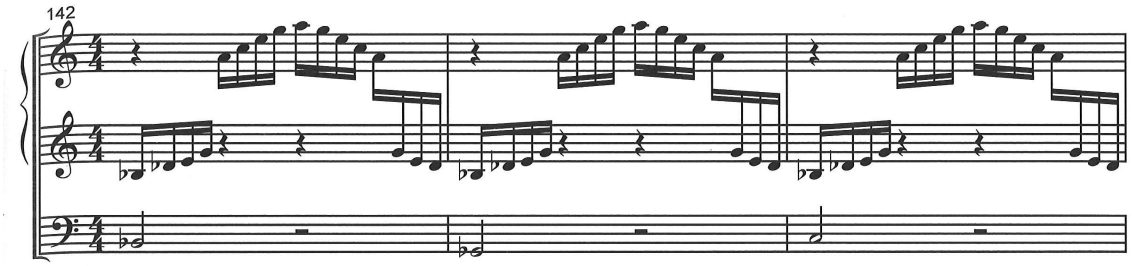
A repetitive accompanimental figure emerges in measures 6-9 of *Organic Romp.* (See Example 20.) The repetitive figuration of repeated sixteenth notes in the left hand contains the three pitches {D, G, C}. Not only does the repetition occur in each measure, but also the repetition repeats in every beat of each measure. Paulus has effectively created an ostinato pattern here. The ostinato accompanies a staccato melody of single and multiple pitches. The figuration recurs in measures 29-36, 135-140, 177-184 and 229-238 of *Organic Romp* and each time functions as an ostinato accompaniment to a recurring staccato melody.

Example 20. Stephen Paulus, *Organic Romp,* mm. 6-9.



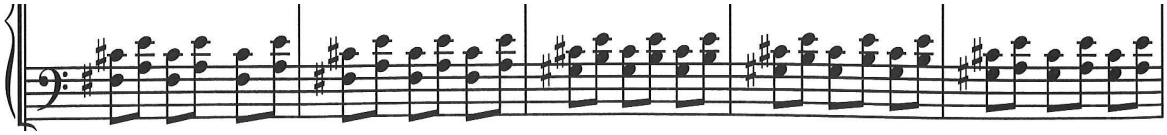
Another form of repetitive accompaniment is shown in Example 21, an excerpt taken from *Blithely Breezing Along.* Paulus writes sixteenth-note arpeggiated figuration for the right and left hands. A slow-moving pedal line of half notes, which function as the section's melodic material, accompanies the figuration. Again Paulus uses a repetitive figure or flourish as a type of ostinato pattern.

Example 21. Stephen Paulus, *Blithely Breezing Along,* mm. 142-144.



Repetition of a one-measure repeated bass accompaniment is prevalent in *A Refined Reflection,* Paulus' final organ composition. A repeated bass-clef figuration of eight eighth notes begins in measure 9 and continues non-stop to measure 50. (See Example 22.) He uses the eight pitches as variations of a one-measure repeated pattern.

Example 22. Stephen Paulus, *A Refined Reflection,* mm. 9-50.

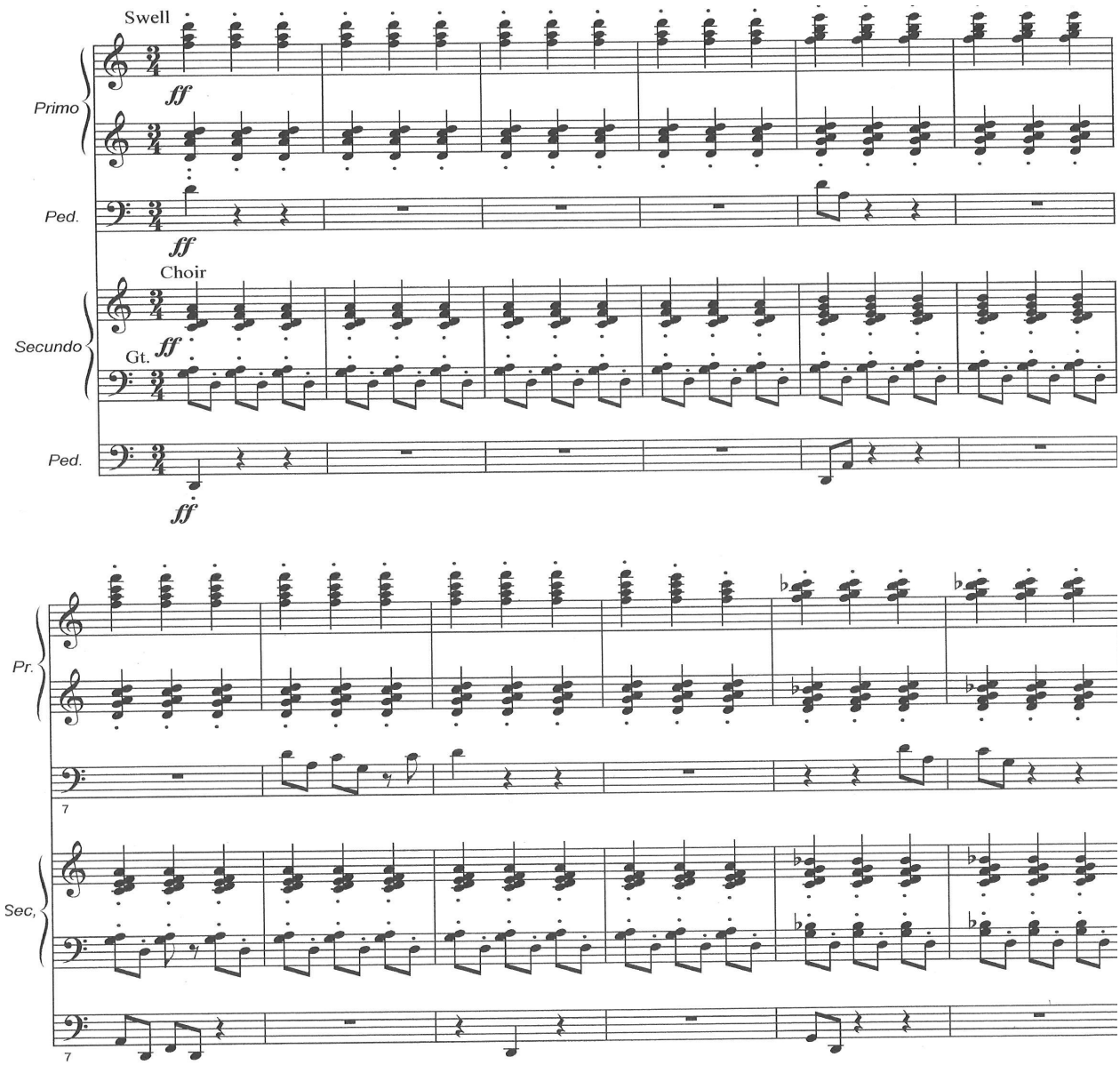


Similar figuration is repeated later in the piece in the treble clef. As seen in Example 23, eight pitches are repeated utilizing the same figuration found previously in the bass clef of Example 12. This repetition functions as an accompaniment to the melody that is located in the other treble-clef voice of the piece.

Example 23. Stephen Paulus, *A Refined Reflection,* mm. 69-89.

In Example 24, the opening passage of the duet *Paean*, patterns of repeated material appear. The right- and left-hand parts of the primo and secundo organ in measure 1 are repeated in the following three measures. Paulus changes the pitch sets slightly in measure 5, and repeats the material in measure 6. Paulus uses measures 5-6 as a link to the next repetition that occurs in measures 7-10. However, he changes the last two quarter-note pitch sets located in the primo organ right-hand treble clef. The uppermost soprano note in measure 10 descends. Paulus recalls this minimalistic material several times throughout *Paean,* and it functions as the piece's primary thematic material.

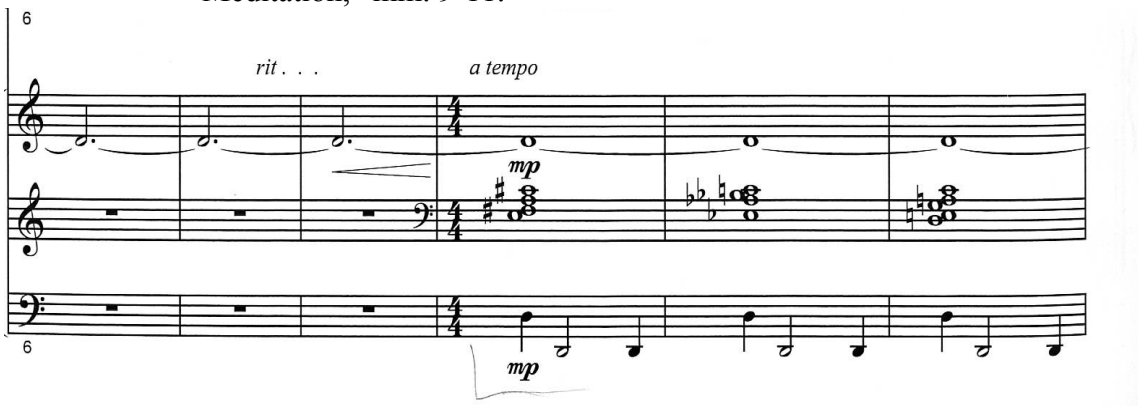
Example 24. Stephen Paulus, *Paean,* mm. 1-12.



A prevalent form of repetition found throughout Stephen Paulus's organ works is the use of repeated bass patterns. Example 25 is from "St. Anthony in Meditation," the second movement of Paulus's *Triumph of the Saint,* and a three-note bass pattern occurs in measures 9-11. The pattern contains only one pitch, D, presented as a quarter note and repeated an octave

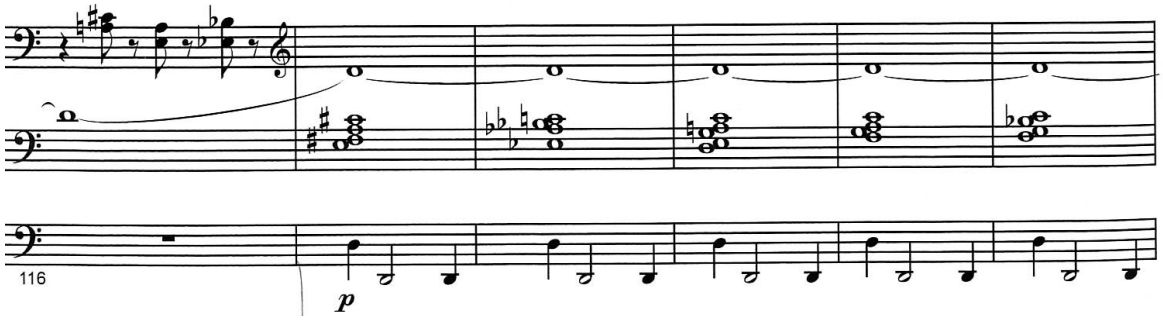
down as a whole note and before resounding again as a quarter note. This syncopated bass pattern continues for 52 measures, ending in measure 61 and returning in measures 117-133. The bass line provides the foundation to slow-moving right-hand pitch clusters. The movement is slow and rhythmically inactive in comparison to the other two movements of *Triumph of the Saint.* Paulus is alluding to St. Anthony in meditation by using this slow-moving hypnotic bass pattern for nearly the entirety of the piece.

Example 25. Stephen Paulus, *Triumph of the Saint,* "II. St. Anthony in Meditation," mm. 9-11.



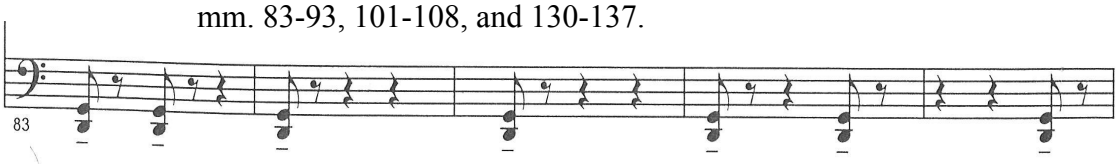
Shown below, in Example 26, is the return of the repeated three-note bass pattern now found in measures 117-133 of "St. Anthony in Meditation," accompanied by the sustained line and cluster chords of the right and left hands. The bass pattern is broken up by quarter-note pitch clusters, which interrupt the overall arch and flow of the piece. The return of the repeated bass pattern is a welcome transition back to meditation.

Example 26. Stephen Paulus, *Triumph of the Saint,* "II. St. Anthony in Meditation," mm. 117-133.



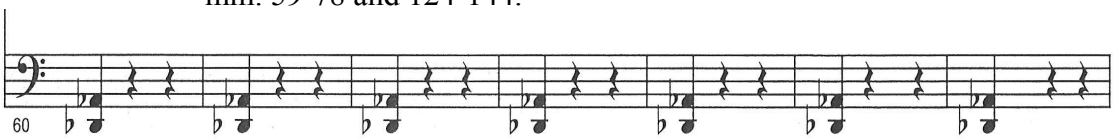
"In Torment*,"* the first movement of *Meditations on the Spirit*, contains a recurring bass figure. Example 27 illustrates the repeated bass pattern that accompanies the dissonant pitch clusters of the right- and left-hand found in measures 83-93, 101-108, and 130-137. Pitches D and G sound together as fourths in eighth-note pitch durations. Like the previous bass pattern discussed in *St. Anthony in Meditation*, the bass pattern functions as a foundation for the piece.

Example 27. Stephen Paulus, *Meditations on the Spirit,* "II. In Torment," mm. 83-93, 101-108, and 130-137.



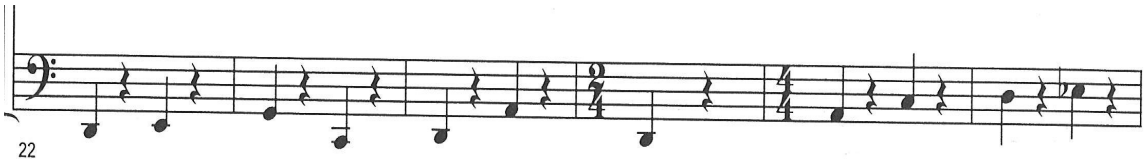
"In Solitude" contains another bass pattern repetition that is similar to that in the previous excerpt. Example 28 represents measures 59-78, and again in measures 124-144 Paulus uses pitches D-Flat and A-Flat, which are voiced now a fifth apart instead of a fourth, and the pitch duration is a quarter note rather than the previous eighth-note pattern.

Example 28. Stephen Paulus, *Meditations on the Spirit,* "II. In Solitude," mm. 59-78 and 124-144.



"Still Be My Vision," the second movement of *Triptych,* utilizes a repeated bass pattern that drives a slow-moving repetitive melody and accompaniment. In the score the pattern initially begins in measure 8 and continues throughout the entire movement, a quarter note alternating with a quarter rest. The pitches in the pattern change throughout, but the rhythmic pattern is consistent. Example 29 presents the pattern as it appears in measures 22-27.

Example 29. Stephen Paulus, *Triptych,* "II. Still Be My Vision," mm. 22-27.



Regardless of programmatic titles, number of movements within a larger work, or whether a piece is played by one organist or two, Paulus's identifiable aesthetic is created and controlled by the extensive use of a limited number of compositional devices. Textural use of toccata figuration and a repetition ultimately shape the form of each composition.

CHAPTER TWO

MODE

The organ works of Stephen Paulus are not effectively analyzed in major or minor tonalities. Analysis with a modal perspective is more efficient and effective in understanding Paulus's harmonic language. Paulus moves in and out of multiple modes quickly, sometimes juxtaposing modes with free material and other scales. For example, he may begin a six-measure phrase in a mode with no sharps or flats, like D-Dorian, transition through a key with three flats such as C-Aeolian, and end the last two measures of the phrase in F-Sharp-Mixolydian, which contains five sharps. For practical reasons, such as the ease of score reading, his organ compositions contain no key signatures. Therefore, all sharps and flats are indicated with accidentals before each pitch.

A particular mode is identified by first locating a pitch center. Pedal points, recurring pitches, or lowest and highest pitches all help to establish a particular pitch center. Once a pitch center is determined, the use of surrounding accidentals and the other neighboring pitches leads to confirmation of the mode employed. This document examines five recurring types of modal transition: fixed-center shifts (the pitch center or "tonic" is unchanged), fixed-collection shifts (the pitch-class collection is unchanged), fixed-mode shifts (the mode-type is unchanged), compound shifts, and shifts to and from free material. To display the relationship between the various modes and tonal centers, this chapter will use Ian Bates's "Table of Modal Relations," as

seen in Example 30.[4] This table accompanies each excerpted example and is a convenient way to display all the possible modes, with their proximity in the table representing a kind of similarity. Fixed- center modal shifts appear as diagonal moves in the table. Fixed-collection shifts appear as vertical moves, and fixed-mode shifts appear as horizontal moves.

Example 30. Ian Bates's "Table of Modal Relations."

	← FLATS							SHARPS							→
	7	6	5	4	3	2	1	0	1	2	3	4	5	6	7
LYDIAN	F*b*	C*b*	G*b*	D*b*	A*b*	E*b*	B*b*	F	C	G	D	A	E	B	F#
IONIAN	C*b*	G*b*	D*b*	A*b*	E*b*	B*b*	F	C	G	D	A	E	B	F#	C#
MIXOLYDIAN	G*b*	D*b*	Ab	E*b*	B*b*	F	C	G	D	A	E	B	F#	C#	G#
DORIAN	D*b*	A*b*	E*b*	B*b*	F	C	G	D	A	E	B	F#	C#	G#	*D#*
AEOLIAN	A*b*	E*b*	B*b*	F	C	G	D	A	E	B	F#	C#	G#	D#	A#
PHRYGIAN	E*b*	B*b*	F	C	G	D	A	E	B	F#	C#	G#	D#	A#	E#
LOCRIAN	B*b*	F	C	G	D	A	E	B	F#	C#	G#	D#	A#	E#	B#

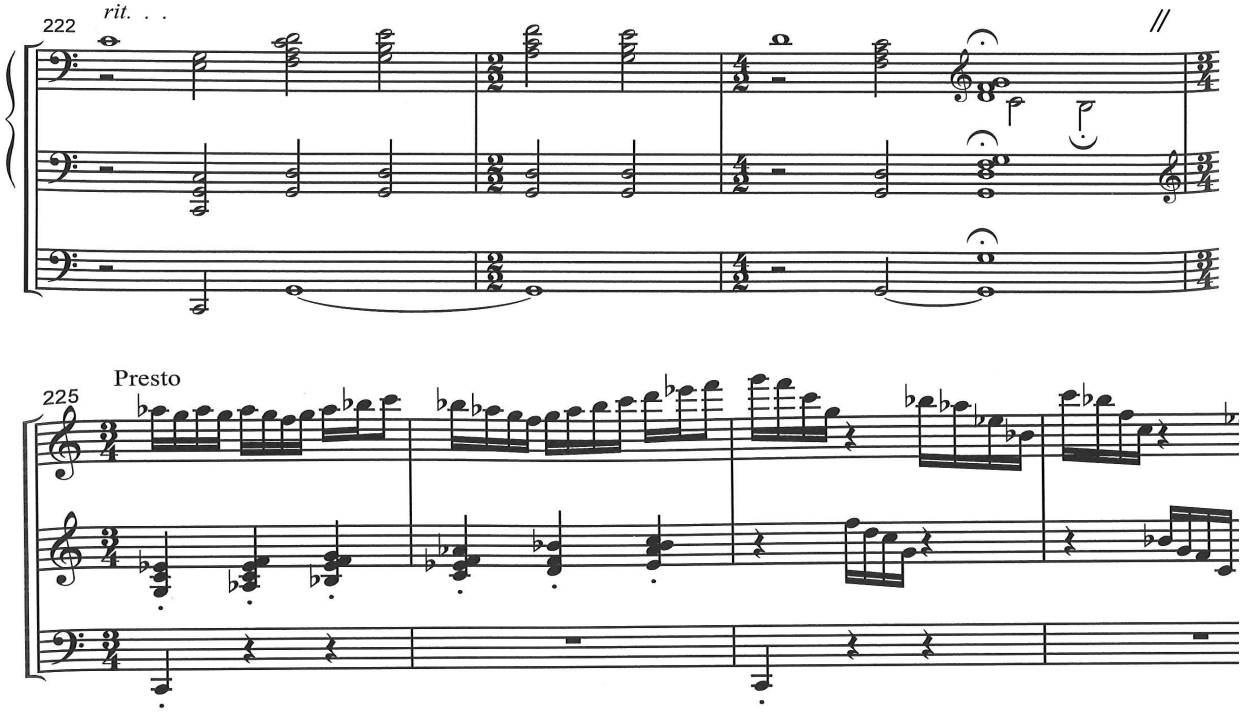
Modal Shifts with Fixed Centers

The music in Example 31 is excerpted from *King David's Dance* and illustrates a modal shift from C-Ionian to C-Aeolian. Measures 222-224 show a C centrality, and the absence of all accidentals firmly establishes the mode of C-Ionian. (A major-key interpretation also applies to these measures: Paulus employs a common-practice gesture of a 4-3 suspension, located in the right-hand bass clef of measure 224, a C resolving to a B over what can be read as a G-dominant-seventh chord.) Paulus quickly shifts to C-Aeolian in measure 225 with the introduction of B-Flat, E-Flat, and A-Flat. The C pedal point continues to reinforce a C-centric mode. While the prior section alludes to a "key" of C major, an understanding of C minor could not be applied in

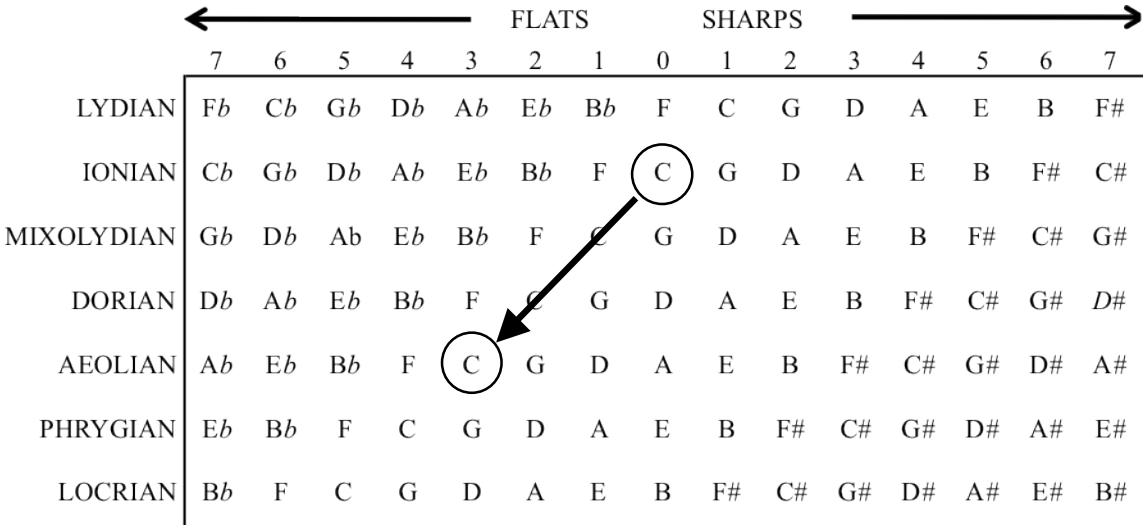
[4] Ian Bates, "Generalized Diatonic Modality and Ralph Vaughan Williams' Compositional Practice." Ph.D dissertation (2008): pg. 79.

measure 225-228. In the key of C-Minor, the B-natural functions as the leading tone. The recurring, ascending B-flat, with no impulse to resolve to the tonic, negates a C-Minor interpretation. This shift from C-Ionian to C-Aeolian is a fixed-center shift. That is, the pitch center, C, is held constant, but the mode changes. The table in Example 32 illustrates the short diagonal move.

Example 31. Stephen Paulus *King David's Dance*, mm. 222-228. Modal Shift from C-Ionian to C-Aeolian

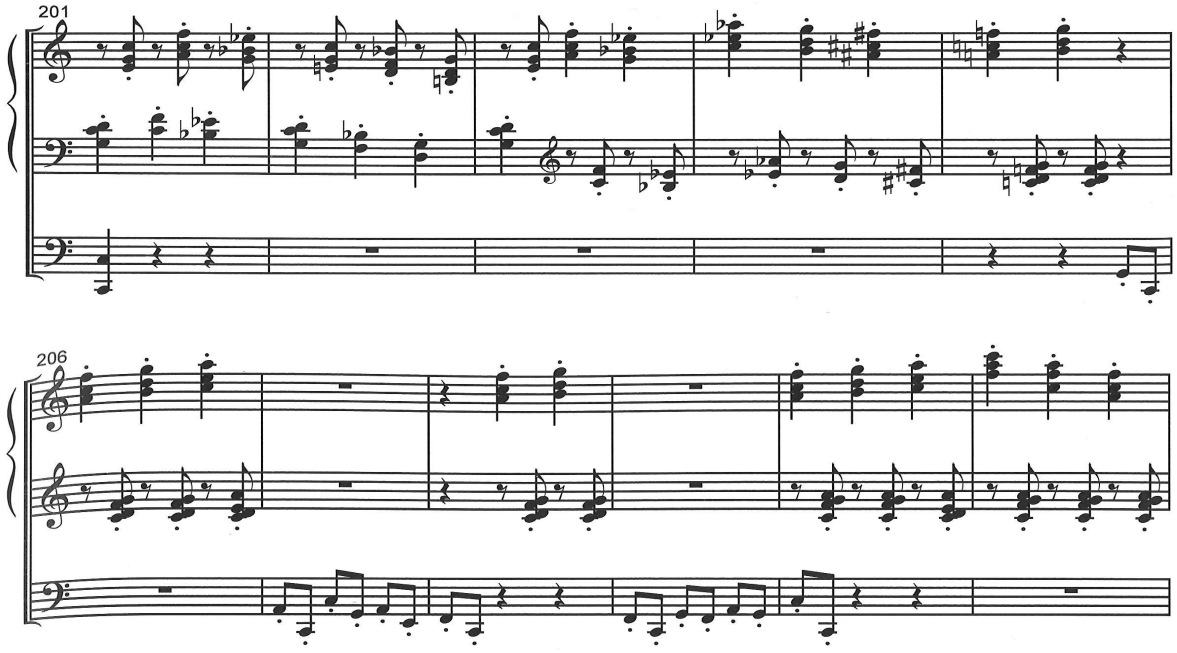


Example 32. Stephen Paulus, *King David's Dance,* mm. 222-228, Modal shift from C-Ionian to C-Aeolian, illustrated on Bates's "Table of Modal Relations."

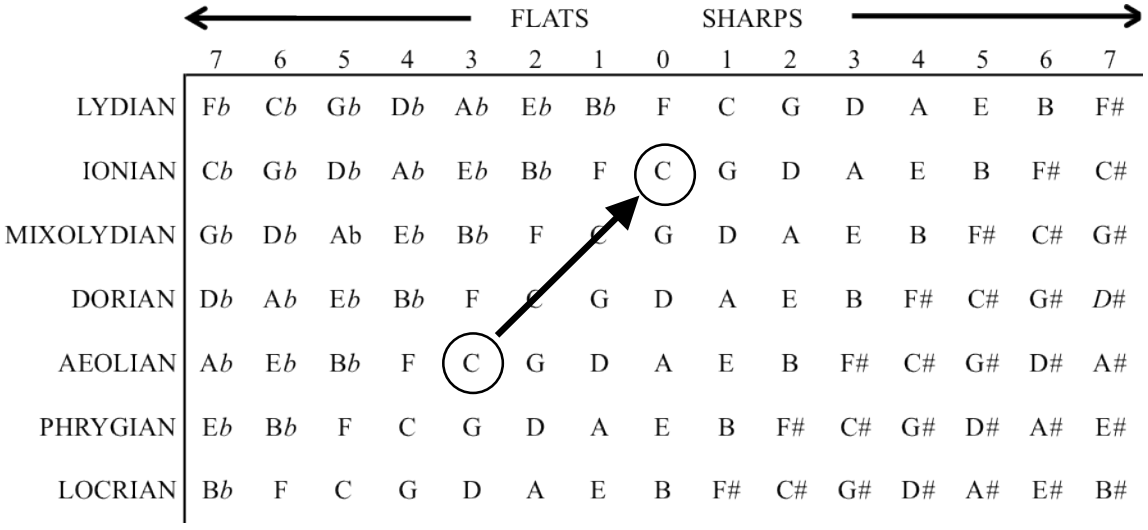


A modal shift from C-Aeolian to C-Ionian is presented in measures 201-219 of *Organic Romp,* shown in Example 33. The pedal point in measure 201 establishes C as the central pitch. Also in measures 201-204, Paulus spells out the C-Aeolian mode in the uppermost voice. These "soprano-line" pitches {C, F, E-Flat, C, B-Flat, G, C, F, E-Flat, A-Flat, G} represent the C-Aeolian mode. Paulus simply "hangs" parallel major triads under each soprano note, letting individual pitches fall where they may. Some of these pitches lie outside the mode, but the highest note follows it strictly. In measure 205 all accidentals disappear, and the mode shifts to C-Ionian. An illustration of the pitch center's shift from C-Aeolian to C-Ionian mode is presented in Example 34.

Example 33. Stephen Paulus, *Organic Romp,* mm. 201-219. Modal Shift from C-Aeolian to C-Ionian



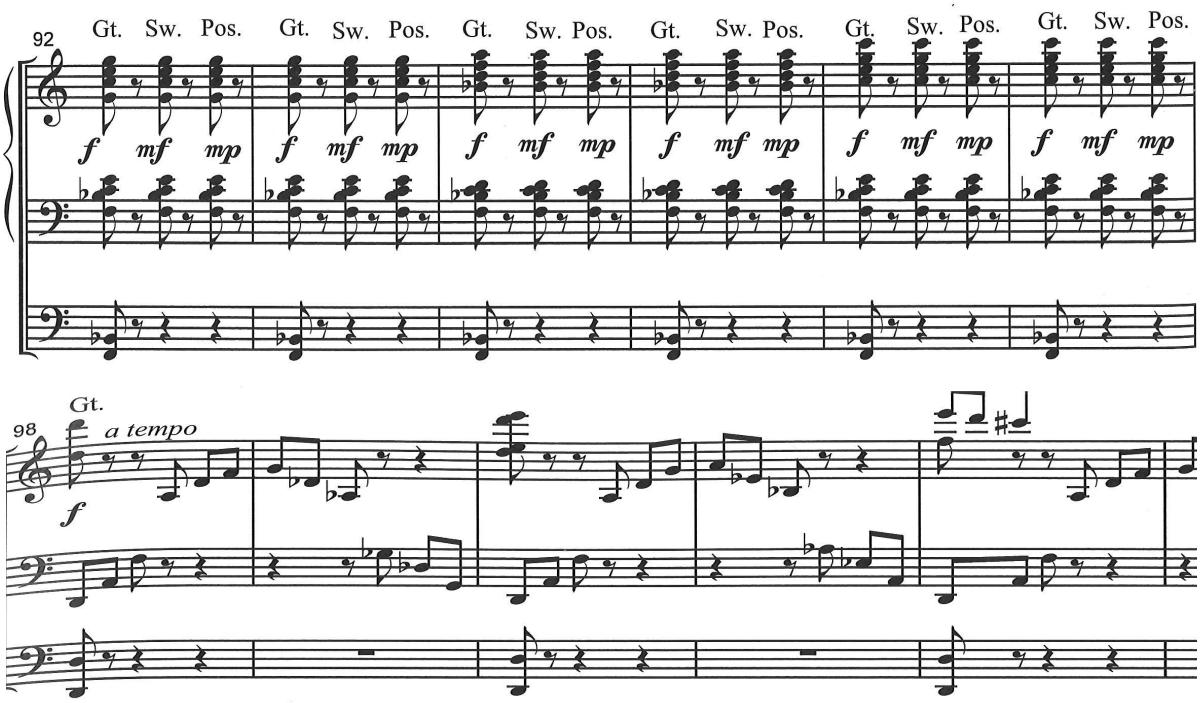
Example 34. *Organic Romp,* mm. 201-219, Modal shift from C-Aeolian to C-Ionian, illustrated on Bates's "Table of Modal Relations."



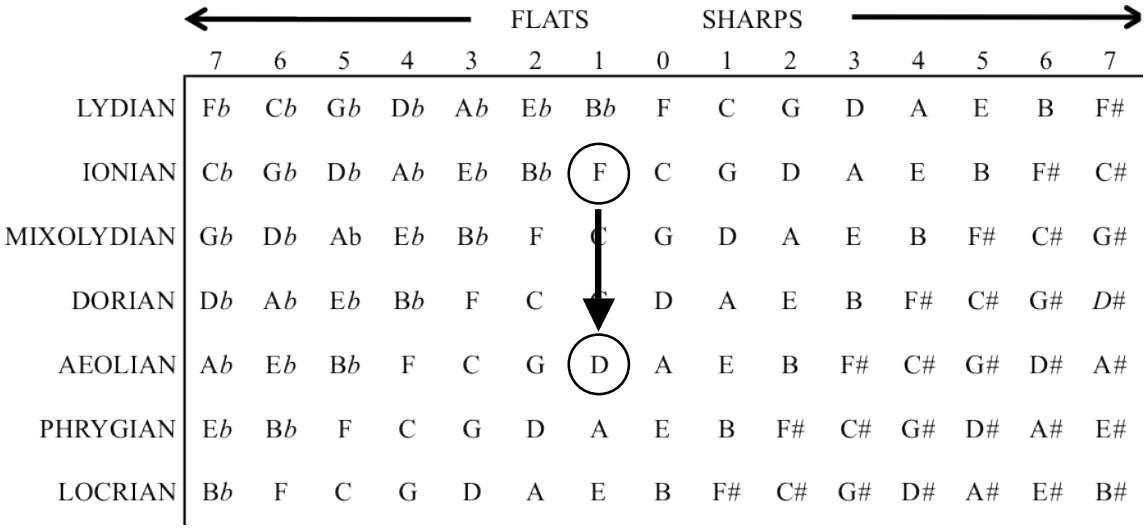
Modal Shifts of Fixed Collection

The excerpt in Example 35 contains a modal shift from F-Ionian to D-Aeolian, which occurs in measures 92-102 of *Toccata.* The centrality of F is reinforced by the F pedal point in measures 92-97. Additionally, the F serves as a foundation pitch for the left-hand eighth-note pitch sets in measures 92-97. The presence of the B-Flat also points to an understanding of F-Ionian. The appearance of a D pedal point and the absence of accidentals indicate a modal shift to D-Dorian in measures 98, 100, 102, and 104. Paulus uses the collection {G-Flat, E-Flat, A-Flat, D-Flat} as undulating tones of color in measures 99 and 101. A horizontal move on the mode table is captured in Example 36. The tones are maintained, but the pitch center is changing from F-Ionian to D-Aeolian.

Example 35. Stephen Paulus *Toccata,* mm. 92-102, Modal Shift from F-Ionian to D-Aeolian.



Example 36. Stephen Paulus, *Toccata,* mm. 92-102, Modal shift from F- Ionian to D-Aeolian, illustrated on Bates's "Table of Modal Relations."



Modal Shifts of Fixed Modes

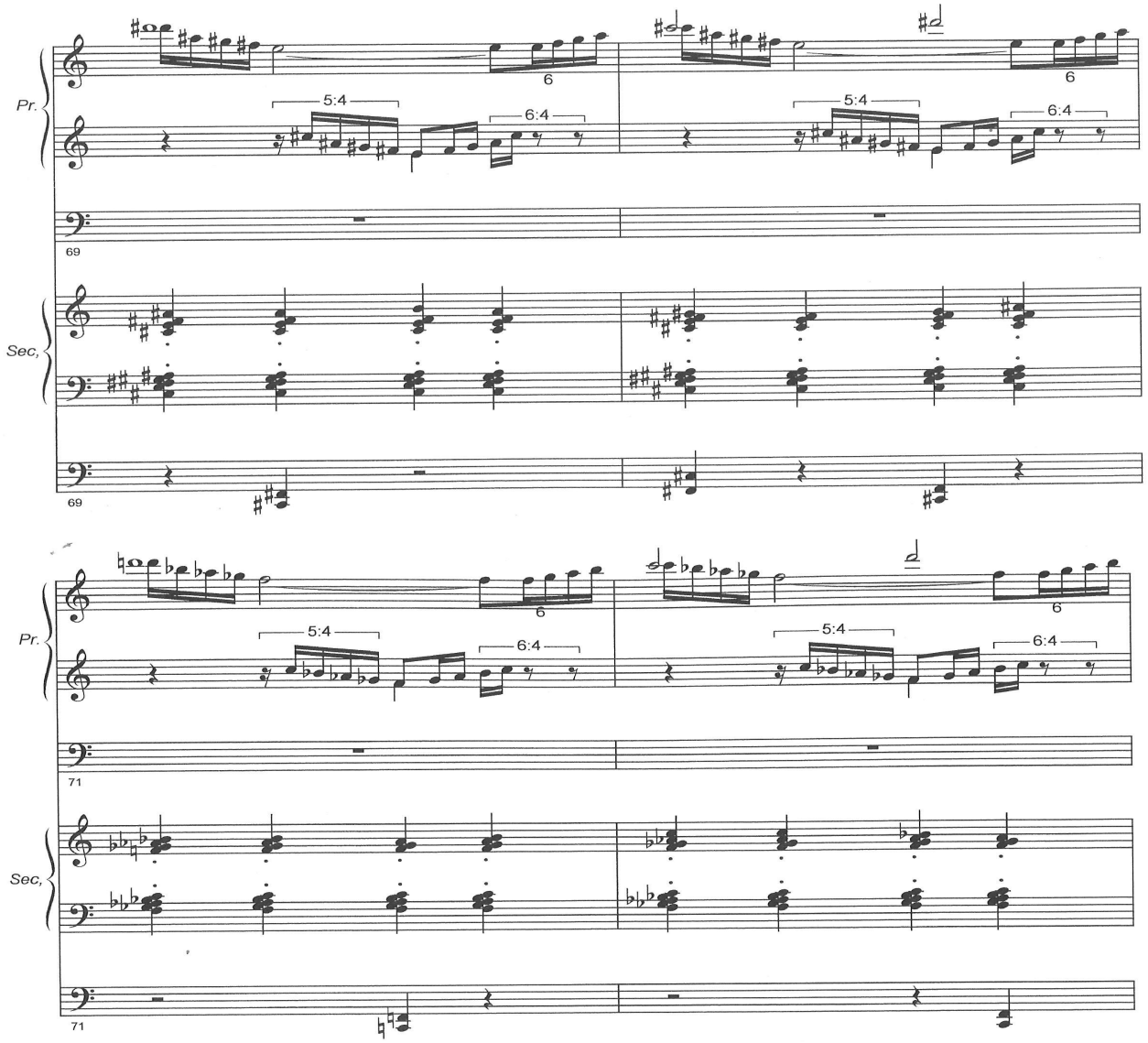
Another frequently occurring transition found in Paulus's organ works is a fixed- mode shift. During a fixed-mode shift, the pitch collections and the pitch centers change, but the mode-type remains the same. A shift from D-Dorian to C-Sharp-Dorian is an example of a fixed mode shift, and a detailed example is shown in the analysis in Chapter Three.

Compound Modal Shifts

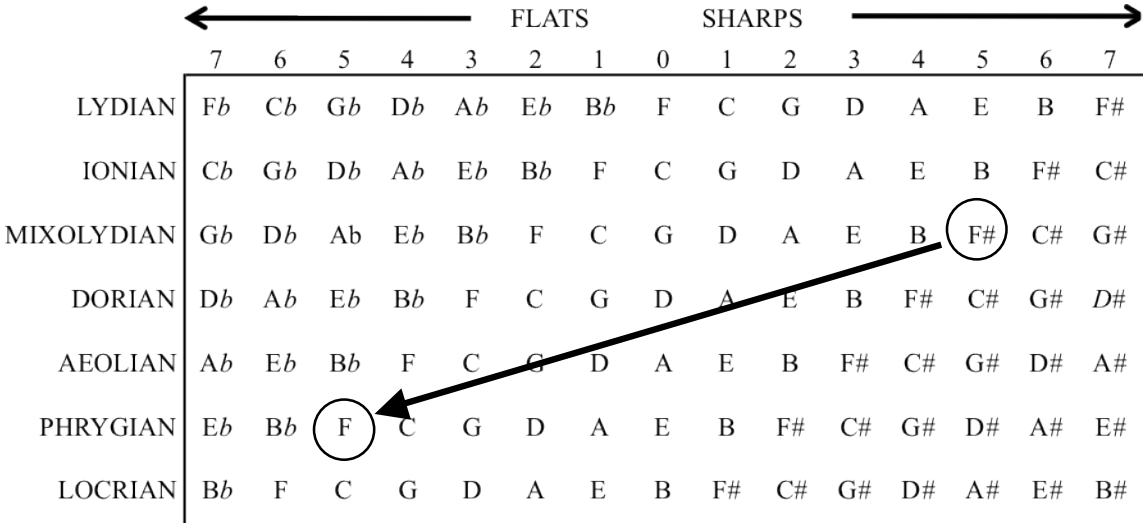
A compound modal shift is one in which neither the pitch center, nor the collection, nor the mode-type, is held constant. It can be understood as a combination of the types above and can be seen on the "Table of Modal Relations" as a chain of moves. The modal shift of F-Sharp-Mixolydian to F-Phrygian shown in Example 37 occurs in measures 69-72 of *Paean*. F-Sharp centrality is established in measures 69 and 70 by the F-Sharp pedal point. The C-Sharp, though lower in pitch at times, does not serve as the foundation of the pedal point. The F-Sharp remains constant in pitch while the C-Sharp moves, alternating above and below the stable F-Sharp. F-Sharp, C-Sharp, G- Sharp, D-Sharp, and A-Sharp are the five accidentals found in both measures,

leading to the perception of F-Sharp-Mixolydian. In measures 71 and 72, the mode quickly shifts to F-Phrygian. A pedal point of F, not C, is present, and G-Flat, A-Flat, and B-Flat permeate the two measures. As it turns out, the two modes are enharmonically similar. Five of the seven tones are shared enharmonically between the two modes. This compound modal shift from F-Sharp Mixolydian to F-Phrygian is illustrated in Example 38.

Example 37. Stephen Paulus, *Paean,* mm. 69-72. Modal Shift from F-Sharp-Mixolydian to F-Phrygian.

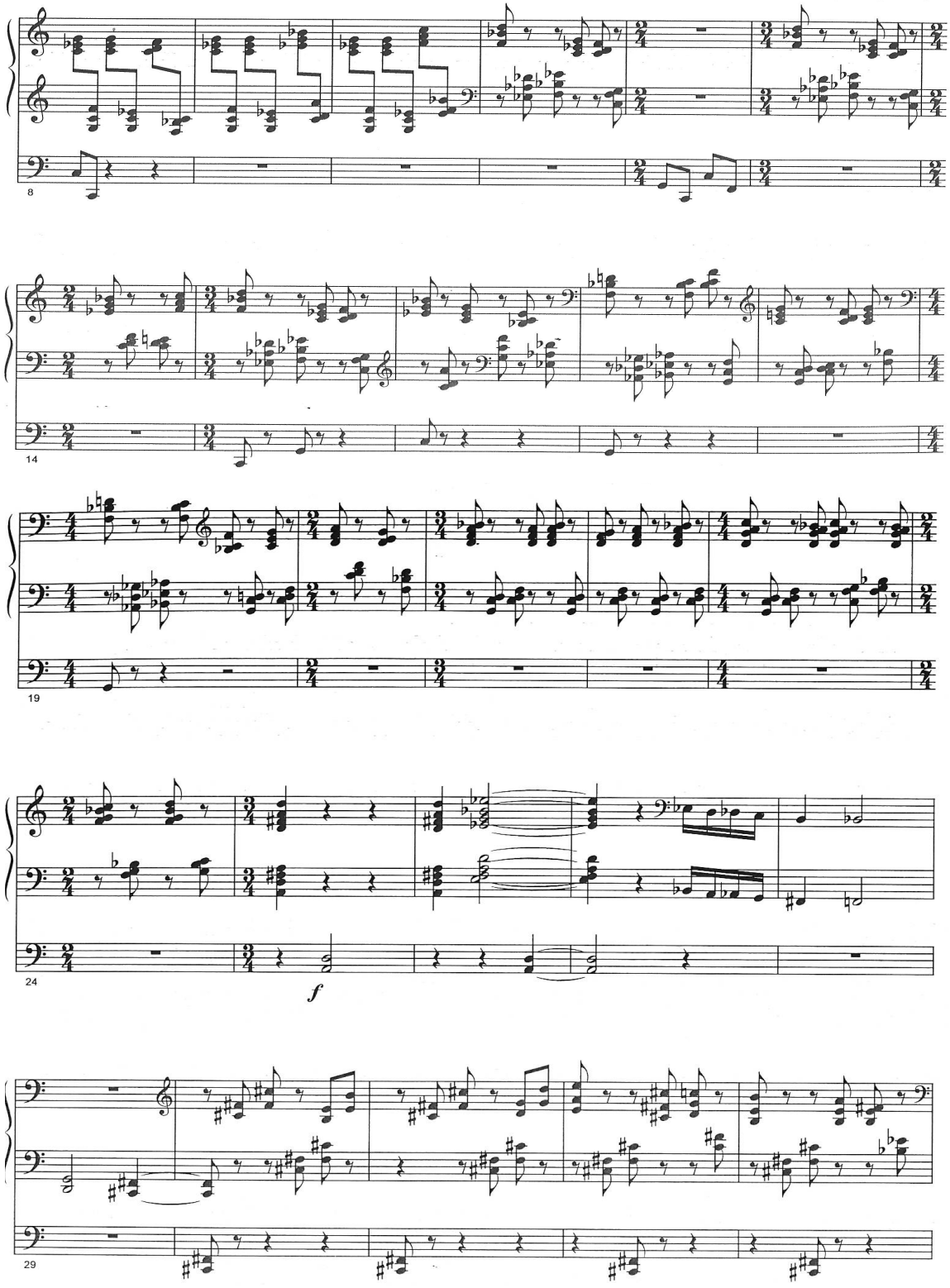


Example 38. Stephen Paulus, *Paean,* mm. 69-72, Modal shift from F-Sharp-Mixolydian to F-Phrygian, illustrated on Bates's "Table of Modal Relations."

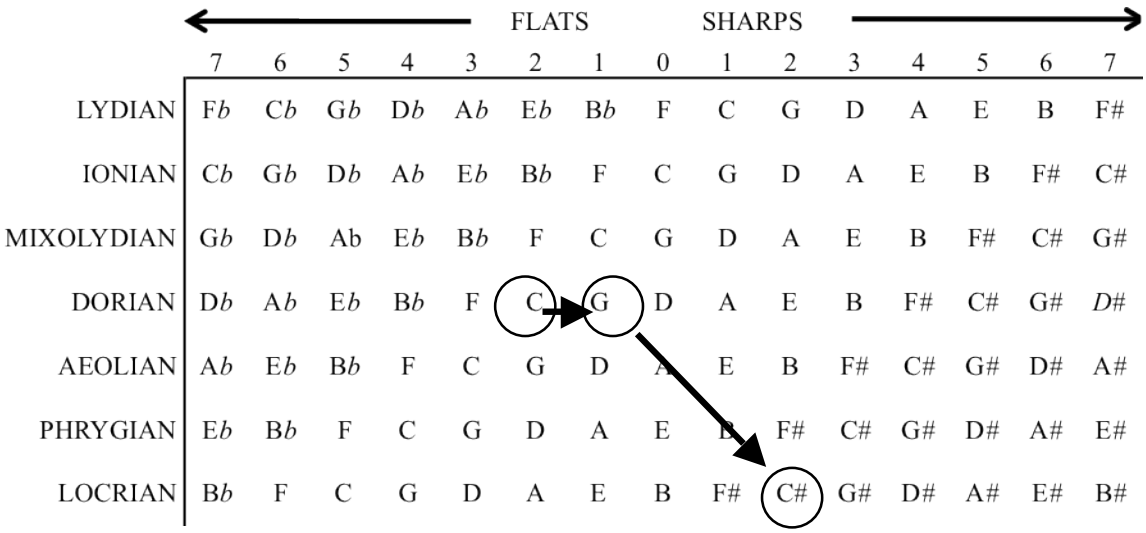


A modal shift from C-Dorian to G-Dorian to C-Sharp-Locrian (a fixed-mode shift followed by a compound shift) occurs in measures 8-33 of "In Fervent", the first movement of *Three Temperaments,* and is shown in Example 39. Measure 8 through the first half of measure 19 can be understood as being in the C-Dorian mode. The recurring C pedal point, and the pitch sets built upon and around C in the right- and left-hand, point to a C centrality. In measures 11, 13, 15, 16, and 17, Paulus interjects recurring trichords in parallel as color clusters, not participating in the mode. The second half of measure 19 shifts modes to G-Dorian. The G pedal point establishes a change in centrality, and the only accidental is a B-flat. Paulus uses measures 25-29 as transitional material to C-Sharp-Locrian. C-Sharp-Locrian is fully established in m. 30 with the presence of both C-Sharp and F-Sharp. Modal mapping of this complex multi-move from C- Dorian to G- Dorian to C-Sharp-Locrian is presented in Example 40.

Example 39. Stephen Paulus, *Three Temperaments,* "I. In Fervent," mm. 8-33.
Modal Shift from C-Dorian to G-Dorian to C Sharp-Locrian.



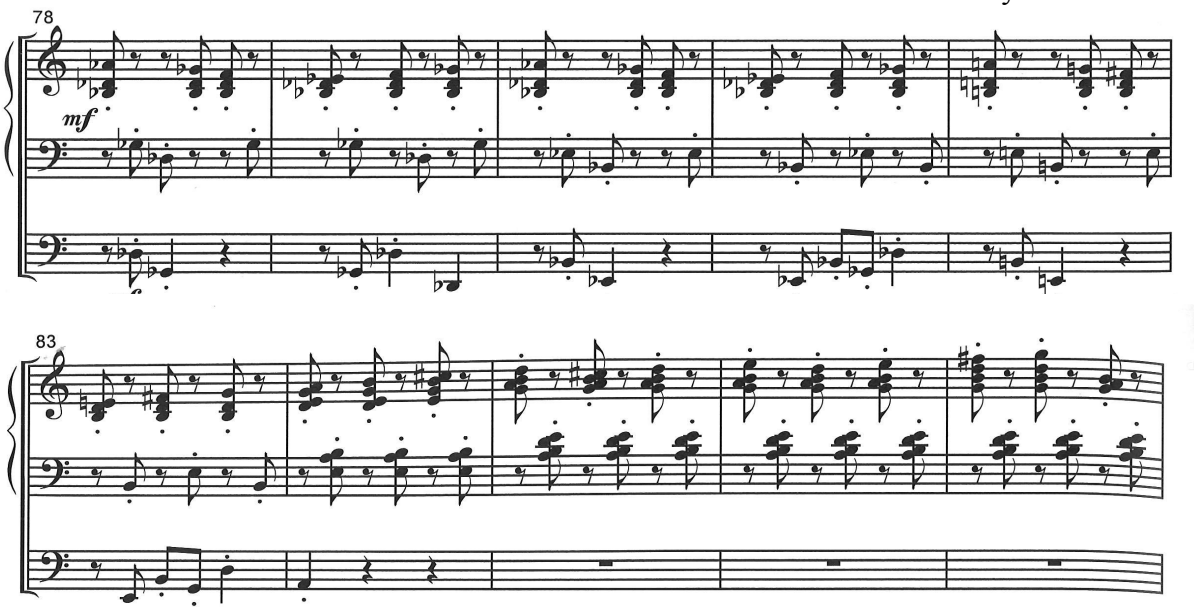
Example 40. Stephen Paulus, *Three Temperaments,* "I. In Fervent," mm. 8-33, Modal shift from C-Dorian to G-Dorian to C-Sharp-Locrian, illustrated on Bates's "Table of Modal Relations."



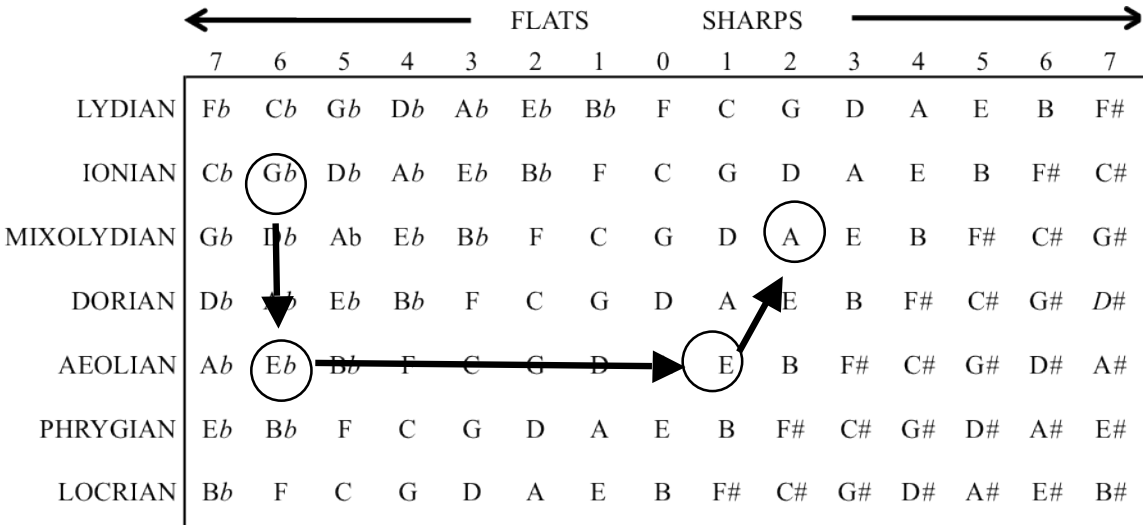
	7	6	5	4	3	2	1	0	1	2	3	4	5	6	7
LYDIAN	F*b*	C*b*	G*b*	D*b*	A*b*	E*b*	B*b*	F	C	G	D	A	E	B	F#
IONIAN	C*b*	G*b*	D*b*	A*b*	E*b*	B*b*	F	C	G	D	A	E	B	F#	C#
MIXOLYDIAN	G*b*	D*b*	Ab	E*b*	B*b*	F	C	G	D	A	E	B	F#	C#	G#
DORIAN	D*b*	A*b*	E*b*	B*b*	F	C	G	D	A	E	B	F#	C#	G#	*D#*
AEOLIAN	A*b*	E*b*	B*b*	F	C	G	D	A	E	B	F#	C#	G#	D#	A#
PHRYGIAN	E*b*	B*b*	F	C	G	D	A	E	B	F#	C#	G#	D#	A#	E#
LOCRIAN	B*b*	F	C	G	D	A	E	B	F#	C#	G#	D#	A#	E#	B#

Example 41 shows Paulus's complex series of modal shifts from G-Flat-Ionian to E-Flat-Aeolian to E-Aeolian to A-Mixolydian in measures 78-92 of *Blithely Breezing Along.* G-Flat is the foundation pitch found in the pedal line of measures 78-80. The left-hand figuration also points to a G-Flat centrality. In measure 81 the mode shifts to E-Flat-Aeolian and continues to shift in measure 82 to E-Aeolian. In measure 84 the mode shifts to A-Mixolydian. A table illustrating this movement is shown in Example 42. The vertical fixed-collection shift leads to a horizontal fixed-mode shift, and then to a short compound shift. Notice that the first and third shifts are shorter, representing shifts between closely related modes, while the second shift, from E-Aeolian to E-Flat Aeolian, traverses quite a distance, which represents the dissimilarity of the two modes.

Example 41. Stephen Paulus, *Blithely Breezing Along,* mm. 78-92. Modal Shift from G-Flat-Ionian to E-Flat-Aeolian to E-Aeolian to A-Mixolydian.



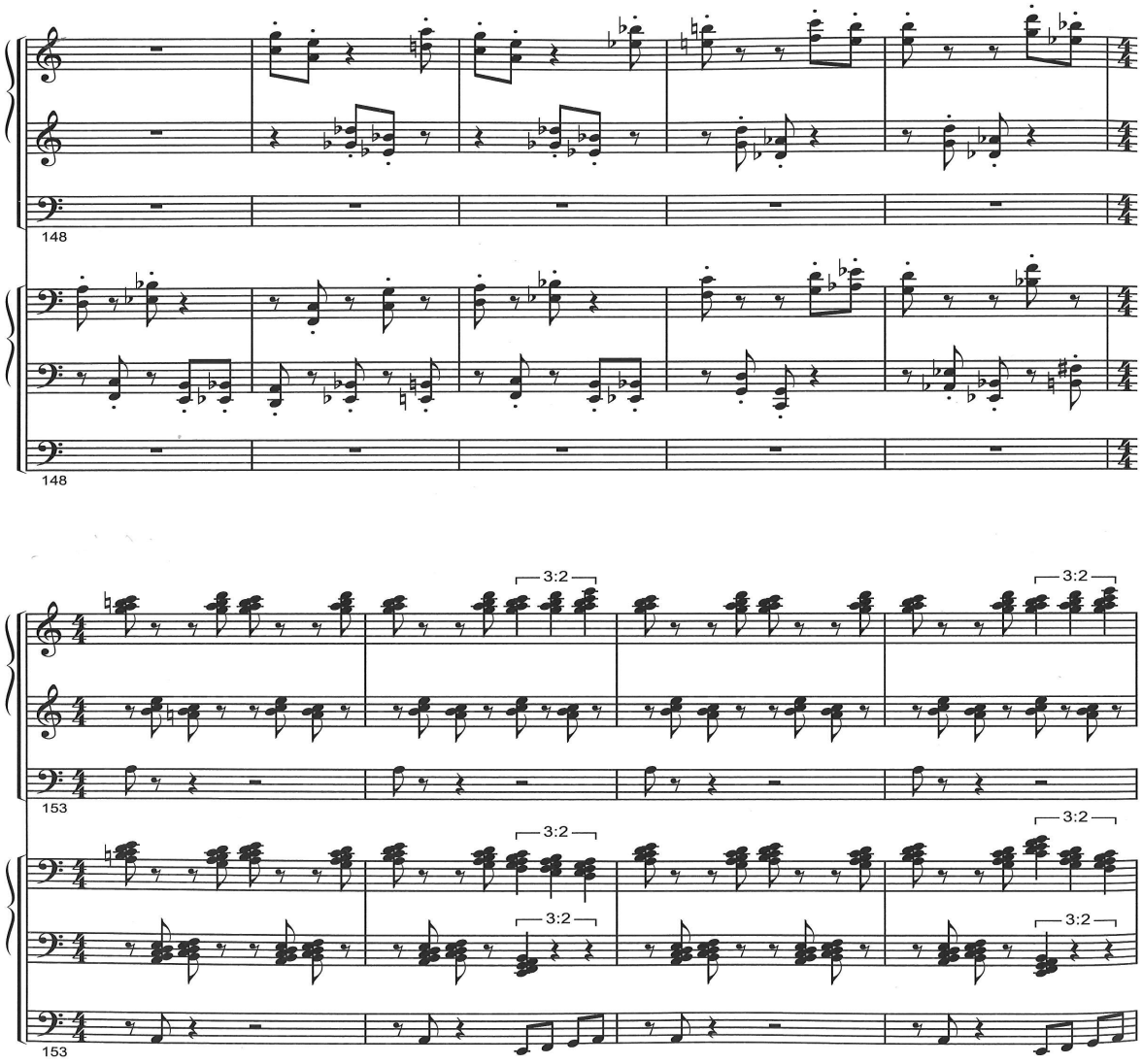
Example 42. Stephen Paulus, *Blithely Breezing Along,* mm. 78-92, Modal shift from G-Flat-Ionian to E-Flat-Aeolian, to E-Aeolian, and to A-Mixolydian, illustrated on Bates's "Table of Modal Relations."



Shifts to and from Free Material

In Example 43, measures 148-156 of "Flight and Failure of Saint Anthony," the first movement of *The Triumph of the Saint,* demonstrates a shift from free transitional material to A-Aeolian. In measures 148-152 freely composed perfect fifths are moving in chromatic motion to measure 153 where Paulus quickly enters the mode of A-Aeolian. The repeated presence of A in both the primo and secundo organ part and the absence of any accidentals lead to a reasonable understanding of A-Aeolian.

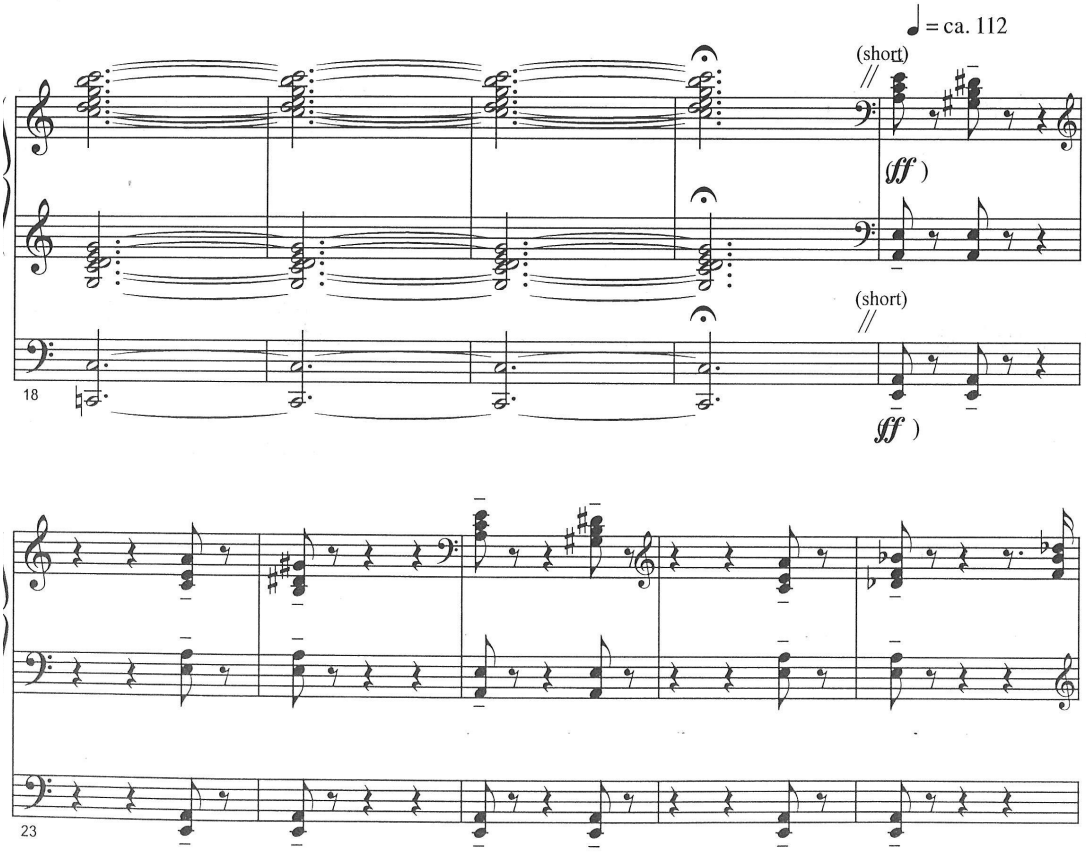
Example 43. Stephen Paulus, *The Triumph of the Saint,* "I. Flight and Failure of Saint Anthony," mm. 148-156. Shift from free material to A-Aeolian.



As seen in Example 44, "In Torment," the first movement of *Meditations on the Spirit,* illustrates a move from C-Ionian or C-Lydian to transitional material. The appearance of F would firmly place measures 18-21 in C-Ionian, and the appearance of F-Sharp would place the excerpt fully in C-Ionian. Neither appears, and as a result the mode is not known. The following

material, measures 22-26, is written in a “double harmonic major” scale: {E, F, G-Sharp, A, B, C, D-Sharp, E} a scale with two augmented seconds: F/G-Sharp and C/D- Sharp}.

Example 44. Stephen Paulus, *Meditations on the Spirit,* “I. In Torment,” mm.18-26. Modal Shift from C-Ionian or C-Lydian to transitional material.



CHAPTER THREE

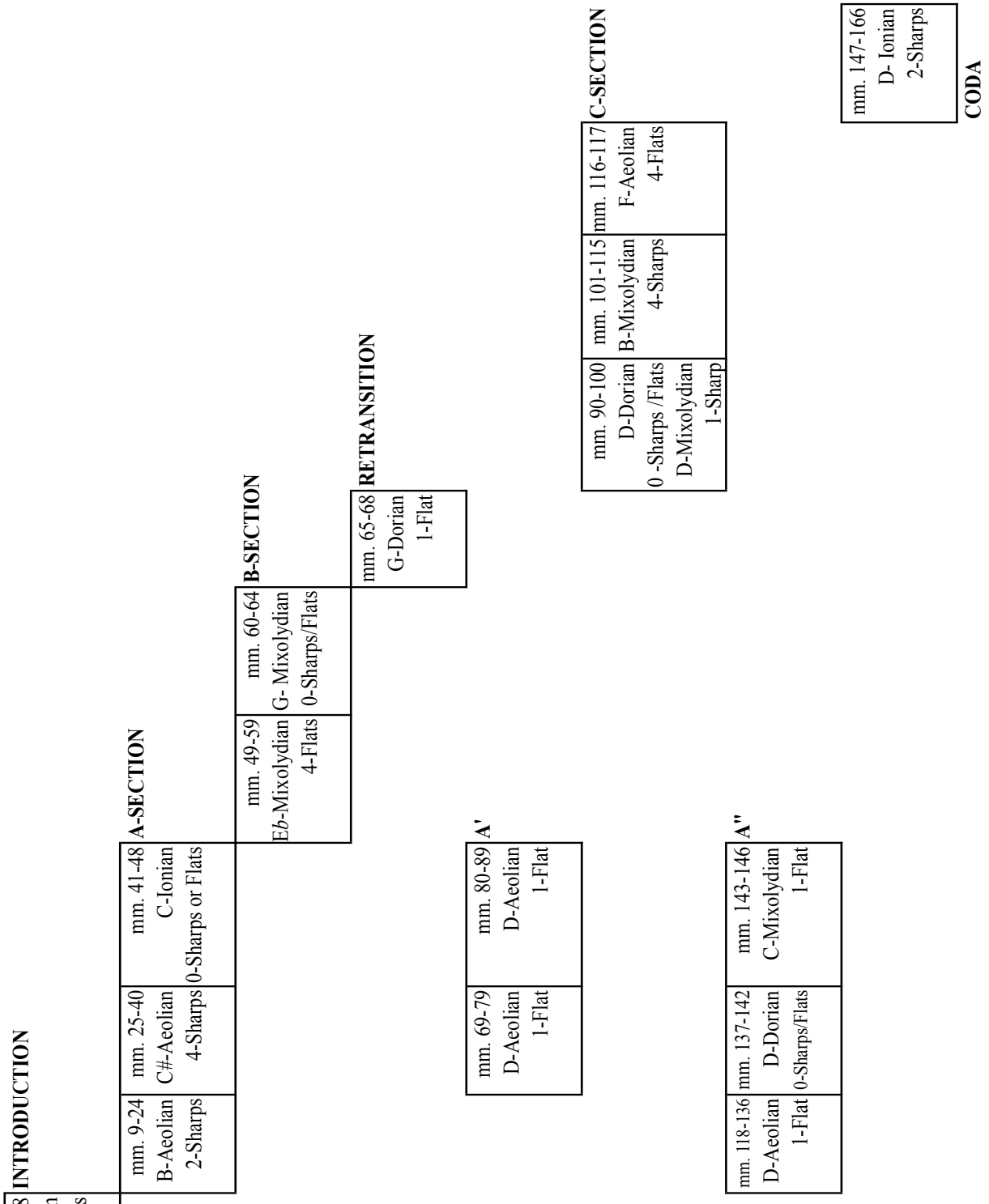
ANALYSIS

In each solo organ composition multiple themes and tonal centers appear, and a return of at least one major theme usually occurs, sometimes multiple times, resulting in a quasi-rondo form. However, the most efficient way to describe the form of Paulus's organ works is to view the pieces as large arch forms.[5] *A Refined Reflection* was the last organ piece composed by Stephen Paulus, and it serves as a good model of the common form that occurs throughout the organ works.

Example 45 is a graph mapping the form and tonal centers of *A Refined Reflection,* and the piece serves as a model of the form found in Paulus's organ works. In this graph, any reprise of a previous section is located directly underneath the corresponding section, and newer material proceeds to the right. Measure numbers, modes, and number of sharps or flats in the mode are enclosed in the boxes marking the sections. What follows is a discussion of each section of the piece accompanied by a mapping of the modal shifts in Bates's "Table of Modal Relations." These mappings trace the varied proximity of modes used in *A Refined Reflection.*

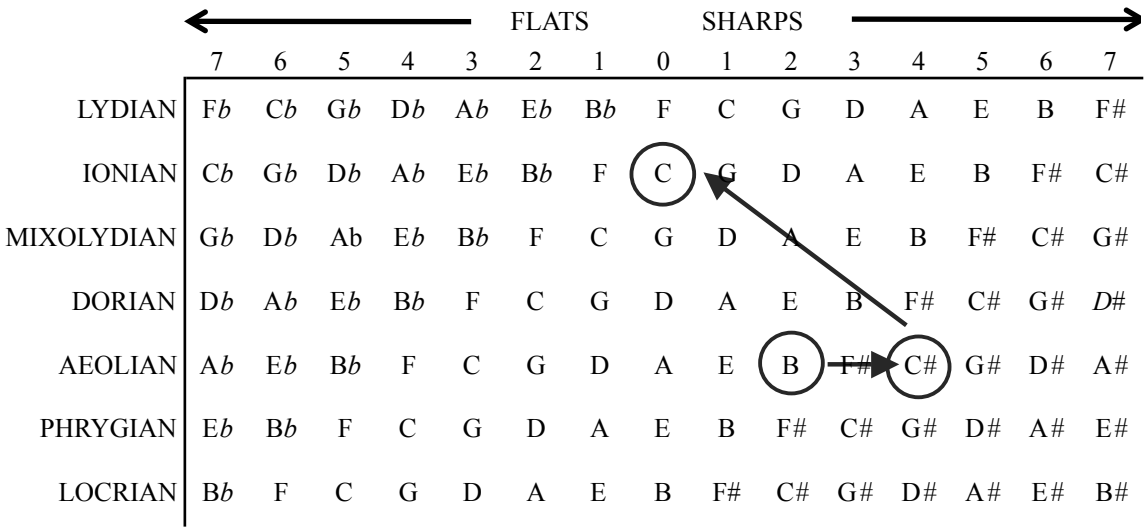
[5] Jerry Westenkuehler, "A Performer's Analysis of Three Organ Concertos: George Frederic Handel, Josef Rheinberger and Stephen Paulus," D.M.A doc., (2004): pg. 99-111.

Example 45. *A Refined Reflection*, Form and Tonal Center Mapping.



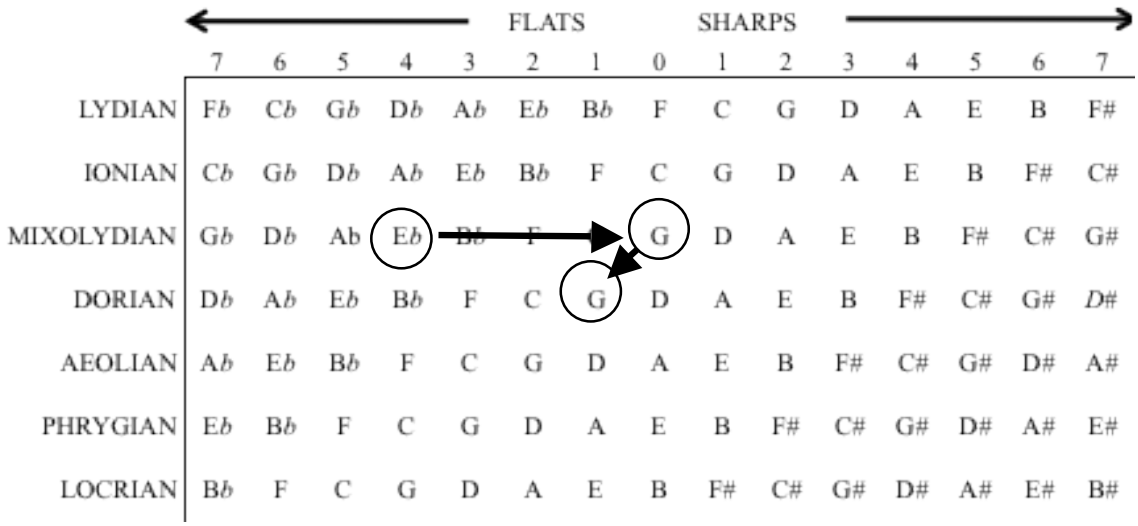
A Refined Reflection is best analyzed as a large arch form that moves through multiple pitch centers and free material, influenced by quasi-rondo principles. The piece begins with an opening eight-measure introduction, in B-Aeolian mode. The A-section of the piece begins with the main melodic theme appearing in measure 9 and continues through to measure 24, all in B-Aeolian mode. In measures 25-40 the mode shifts up a step quickly to C-Sharp-Aeolian. However, because of the similar, ongoing melodic material, this is still part of the A-section. An additional modal shift occurs in measure 41, and the remaining eight measures of the A-section are in C-Ionian. See Example 45, in which these subsections of the A-section are aligned one after the other. The mapping of modal movement in the Introduction and A-Section of *A Refined Reflection* is shown in Example 46.

Example 46. Stephen Paulus, *A Refined Reflection,* Introduction and A-Section, illustrated on Bates's "Table of Modal Relations," B-Aeolian, C-Sharp-Aeolian, C-Ionian.



The B-section begins in measure 49 with new melodic material and figuration. Measures 49-59 are written in E-Flat-Mixolydian. The last four measures of the B-section are cadential and transitional. The final four measures serve as a closure, or cadence, to the B-section, while transitionally they shift to G-Mixolydian mode, which shares the same pitch center as the beginning of the retransition to A. The "Table of Modal Relations" shown in Example 47 illustrates the mode movement of the B-section and Retransition.

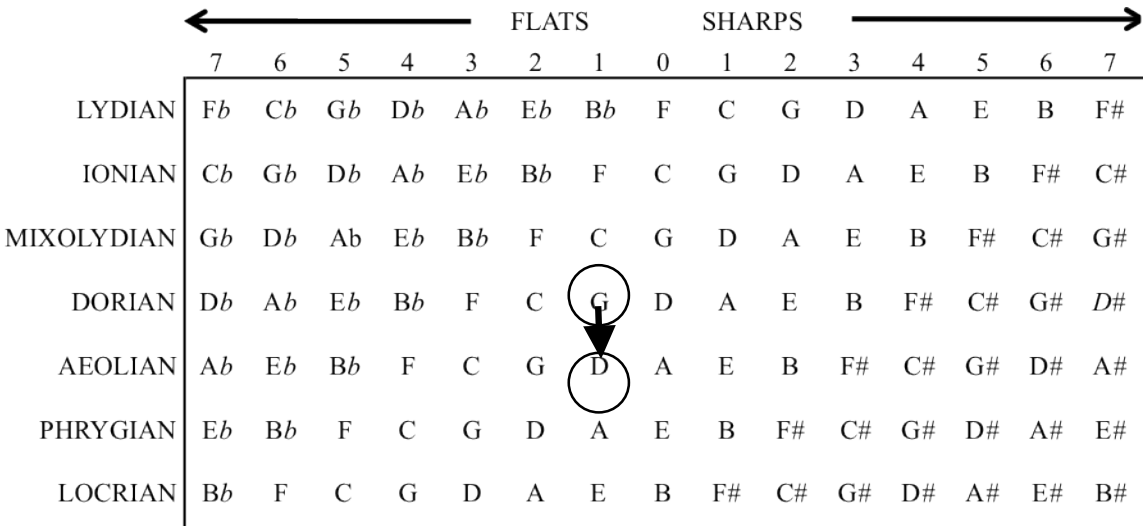
Example 47. Stephen Paulus, *A Refined Reflection,* B Section and Retransition, illustrated on Bates's "Table of Modal Relations," E-Flat-Mixolydian, G-Mixolydian, G-Dorian.



	7	6	5	4	3	2	1	0	1	2	3	4	5	6	7
LYDIAN	F♭	C♭	G♭	D♭	A♭	E♭	B♭	F	C	G	D	A	E	B	F#
IONIAN	C♭	G♭	D♭	A♭	E♭	B♭	F	C	G	D	A	E	B	F#	C#
MIXOLYDIAN	G♭	D♭	Ab	E♭	B♭	F	G	D	A	E	B	F#	C#	G#	
DORIAN	D♭	A♭	E♭	B♭	F	C	G	D	A	E	B	F#	C#	G#	D#
AEOLIAN	A♭	E♭	B♭	F	C	G	D	A	E	B	F#	C#	G#	D#	A#
PHRYGIAN	E♭	B♭	F	C	G	D	A	E	B	F#	C#	G#	D#	A#	E#
LOCRIAN	B♭	F	C	G	D	A	E	B	F#	C#	G#	D#	A#	E#	B#

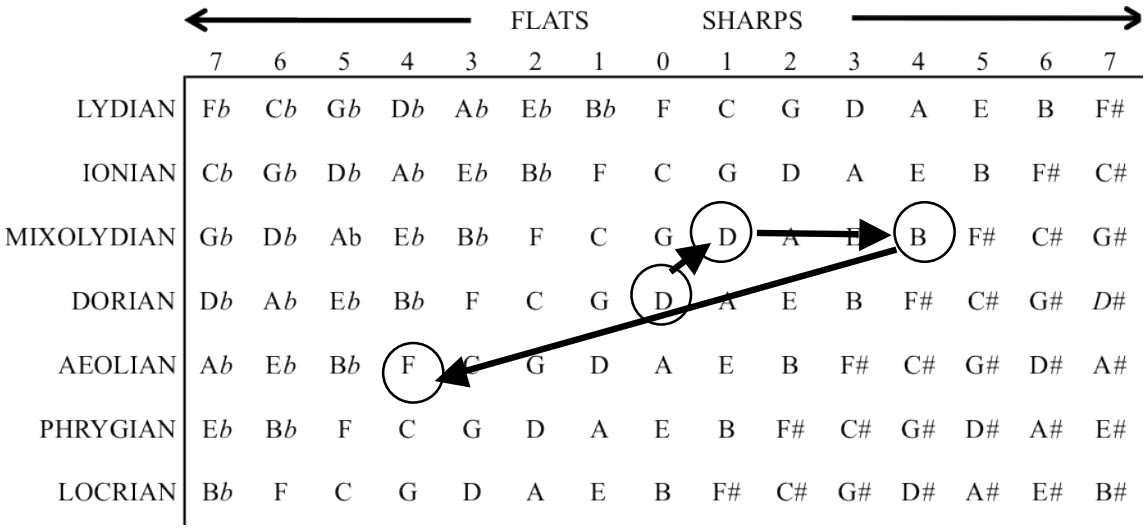
Measures 65-68 serve as a Retransition to the return of A, which is written in G- Dorian mode. As is the case with the Introduction, the Retransition consists of accompaniment figuration that precedes the melodic material. Section A' begins in measure 69 with the return of the melodic material of the A-section. The mode has changed in this section, and measures 69-89 are in D-Aeolian, not B-Aeolian as before. Nevertheless, it is the first return to Aeolian and an example of a fixed-mode shift. Example 48 maps the modal shifts of the Retransition and A'. Both modes are in proximity to one another in the center of the mode map.

Example 48. Stephen Paulus, *A Refined Reflection,* Retransition and A Prime, illustrated on Bates's "Table of Modal Relations." G-Dorian, D-Aeolian.



New developmental material emerges in measure 90 and will be called C-section. See Example 45, in which this new material appears to the right of previous material. The first ten measures of the C-section alternate between D-Dorian and D-Mixolydian. As the C-section approaches its end, a Fixed-mode shift into B-Mixolydian takes place in measures 101-115. The final two measures of C-section shift into F-Aeolian. The modal mapping of the C-section is shown in Example 49. Whereas the movement in the A-section and B-section was relatively localized to one portion of the table, the C-section offers extreme movement of modes, and this section has the greatest modal diversity.

Example 49. Stephen Paulus, *A Refined Reflection,* C-section, illustrated on Bates's "Table of Modal Relations," D-Dorian, D-Mixolydian, B-Mixolydian, F-Aeolian.

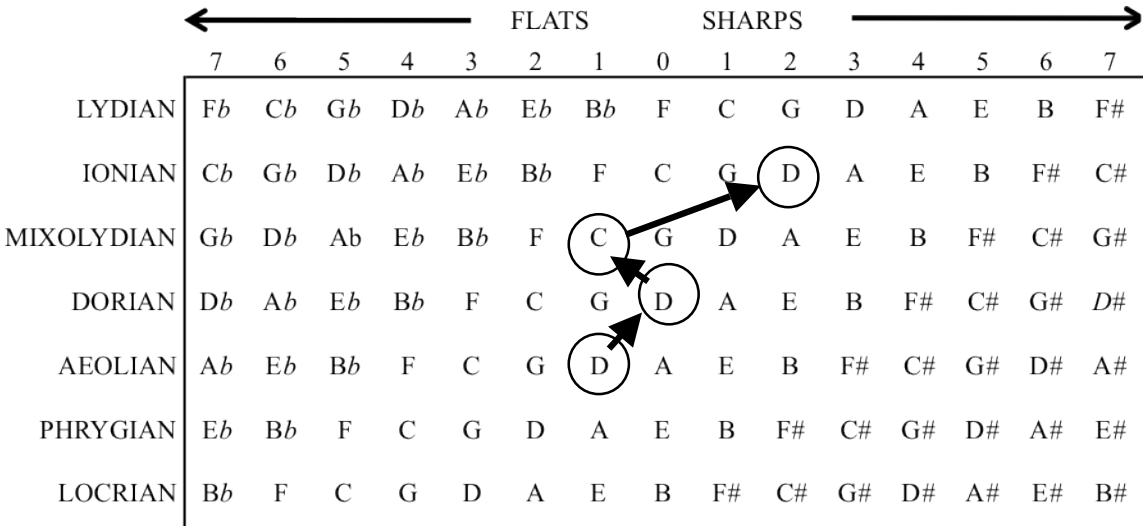


Section A" begins in measure 118 and is in the mode of D-Aeolian. A modal shift to D-Dorian occurs in measure 137. Section A" shifts into C-Mixolydian mode in the final three measures of A" as the piece transitions into closing Coda material.

The Coda of *A Refined Reflection* occurs in measures 147-166 and is written in D- Ionian. The Coda section marks the return of Ionian mode, which has only been used one other time, at the closing of the A-section. Paulus' use of C-Ionian as the final mode employed in the beginning A-section and his use of D-Ionian in the Coda, together produce a large, connecting arch form. Additionally, the character and texture of the musical material brings attention to this section and reinforces the finalizing character of the Coda. The Coda employs eighth notes in perpetual motion underpinning and intensifying the returning theme found in the A-section, driving the piece to an end.

Example 50 displays the modal shifts that occur in A" and the Coda. The reappearing of A and the Coda shows that modal movement returns to, and ends in the middle of the "Table of Modal Relations." It is interesting to note that the last mode used, which is D-Ionian, is in the center of the mode map.

Example 50. Stephen Paulus, *A Refined Reflection,* A Double Prime and Coda, illustrated on Bates's "Table of Modal Relations," D-Aeolian, D-Dorian, C-Mixolydian, D-Ionian.



CHAPTER FOUR

CONCLUSION

By surveying the complete organ works of Stephen Paulus, this document uncovers and shows commonalities of toccata texture, repetition, mode, and form. Paulus's use of toccata and repetition as common compositional devices stand out in his oeuvre, so too does his use of modes and the constant shifting from one pitch center to another. A complete analysis of *A Refined Reflection* shows that the use of common compositional techniques like toccata, repetition of material, and mode used by Paulus directly affects the form of the piece. The resulting form is a large arch form, which happens to be seen throughout Paulus's complete body of organ compositions. The commonalities of toccata, repetition of material, mode, and form produce a body of compositions that look and sound striking similar to one another. The sense of perpetual motion generated by the texture of toccata figuration, the consistent use of repeated material, and the constant shifting of mode and pitch center makes Paulus's organ compositions instantly recognizable. While Paulus should not be viewed as a strict minimalist, he incorporates an economy of materials and techniques into his compositional language in a fashion that is unique within the organ repertory.

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APPENDIX

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