UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

CARTER PANN'S FOUR FACTORIES FOR WIND SYMPHONY:

AN ANALYSIS AND DISCUSSION

A DOCUMENT

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

Degree of

DOCTOR OF MUSICAL ARTS

BY

RUSSELL TODD PETTITT
Norman, Oklahoma
2010

CARTER PANN'S FOUR FACTORIES FOR WIND SYMPHONY:
AN ANALYSIS AND DISCUSSION

A DOCUMENT APPROVED FOR THE
SCHOOL OF MUSIC

BY

_____
Dr. William Wakefield, Chair

_____
Dr. Paula Conlon

_____
Dr. Michael Raiber

_____
Dr. Sarah Reichardt

_____
Dr. Joseph Rodgers

ACKNOWLEDGEMENTS

Many people have been influential and helpful during my work on this project. I would like to sincerely thank the members of my committee for their unwavering support, particularly Dr. William K. Wakefield for his encouragement of creative and scholarly endeavors, Dr. Sarah Reichardt for her diligence in assisting my work, and Dr. Paula Conlon for guidance through the research process.

I am grateful to Dr. Carter Pann for his incredible talent as a musician and composer, friendly and supportive nature, and his willingness to submit to two days of conversation regarding his life and music.

Words cannot express how thankful I am for my wonderful wife Megan Pettitt. Without her love and support my professional endeavors would not be possible. Furthermore, Megan was instrumental in creating the musical examples contained in this study.

I would like to dedicate this document to the memory of my maternal grandparents, Burt and Millie Russell, whose lives were spent creating better opportunities for their children and grandchildren, and to Emily Kvavli, whose love of music was passed to her grandson Carter Pann.

CONTENTS

TABLES

MUSIC EXAMPLES

MUSIC EXAMPLES, continued

ABSTRACT

Carter Pann is an award-winning composer of music for a variety of mediums and currently serves as Assistant Professor of Composition and Theory at the University of Colorado at Boulder. Pann's *Four Factories*, commissioned by the University of North Carolina at Greensboro Wind Symphony and completed in 2006, is a fifteen-minute composition written in four movements for large wind symphony that has been performed widely by leading college and university bands. Inspired by a reading of Ayn Rand's *The Fountainhead* and the music of George Antheil, the movements of *Four Factories* evoke images of industrial machinery through programmatic effects, use of dense orchestration, driving rhythms, glissandi, and percussion instruments such as siren, wood blocks, and brake drum or anvil.

This document explores Carter Pann's *Four Factories* through musical analysis enlightened by personal interviews with the composer. Basic biographical information about the composer is included along with an analysis and discussion of each movement. Interview transcripts, a selected list of Pann's works, and the composer's biography appear in appendices. Insight into *Four Factories'* characteristics presented in this study promotes an appreciation of Carter Pann's compositional methods, an understanding of the work, and serves as an aid to musicians in its performance.

CHAPTER 1

INTRODUCTION

I am definitely not a bad boy. But this is a bad-boy piece.[1]

Carter Pann

During my first semester of doctoral studies at the University of Oklahoma, I became interested in the music of Carter Pann. William K. Wakefield conducted Pann's *Four Factories* with the Wind Symphony in November 2007 at which time the composer was present for a residency in Norman. I was intrigued by the virtuosic and unapologetically dramatic nature of the piece and enjoyed conversations with the composer.

Four Factories is a fifteen-minute composition written in four movements for large wind symphony that is intended to suggest the inner workings of factories or generators on a grand scale.[2] Pann has stated that a significant inspiration for the piece was his reading of *The Fountainhead*, Ayn Rand's masterwork novel:

> I knew after reading *The Fountainhead* that I wanted to write a piece of music that was a great achievement, or Man's Greatest Achievement, or a symphony of skyscrapers. And, I ended up taking the inspiration I had, back when I was reading that book, and transporting it to the time I was writing *Four Factories*.[3]

[1] Carter Pann, interview by the author, 7 May 2009. See Appendix B, p. 123.
[2] Carter Pann, program notes in score *Four Factories* (New York: Presser, 2006), n.p.
[3] Pann, interview. See Appendix B, p. 118.

In addition to the influence from Rand's novel, Pann's compositional choices for *Four Factories* were also impacted by the work of composer George Antheil. Pann indicates in program notes that he was reading a biography of Antheil during the same period of time that he was reading *The Fountainhead*.[4] When asked to describe Antheil's influence on *Four Factories*, Pann responded:

> Well, a lot of that biography of Antheil was about how he was a bad-boy and how he really didn't care what audiences expected or about being nice and charming in social circles. He just did his thing and was an extremely talented guy who played the piano with incredible vigor and incredible technique.
>
> His music was about the industrial revolution. It has buzzes and whizzes and tools and things hitting each other. You can see why that is congruent with my thinking of the inspiration for *Four Factories*.[5]

George Antheil's music, particularly *Ballet Méchanique*, is representative of the modernist celebration of the Machine Age. Antheil created music with a mechanistic, hammering effect and incorporated instruments including pianola, wood and metal propellers, multiple bass drums, tam-tam, and siren. The movements of *Four Factories* similarly evoke images of industrial machinery and urban life through use of dense orchestration, driving rhythms, glissandi, and percussion instruments including siren, wood blocks, and brake drum or anvil.

This document explores Carter Pann's *Four Factories* through musical analysis enlightened by personal interviews with the composer. Insight into *Four Factories'* compositional characteristics will promote a better understanding of the work and aid musicians in its performance. In interviews, Pann has

[4] Pann, program notes, *Four Factories*, n.p.
[5] Pann, interview. See Appendix B, p. 121.

acknowledged that this study of *Four Factories* is an opportunity to "deduce [his] DNA as a composer, [his] rhythm of musical import."[6] As such, Chapters Two through Five provide an analysis and discussion of each movement. Chapter Six presents a summary and conclusions. Interview transcripts, a selected list of Pann's works, and the composer's biography appear in appendices.

About the Composer

Carter Pann currently serves as Assistant Professor of Composition and Theory at the University of Colorado at Boulder and has written music for a variety of mediums including solo piano, chorus, chamber ensembles, orchestra, and wind symphony. Born in La Grange, Illinois, in 1972, Pann began piano lessons at age four with Sister Mary Joseph, a Suzuki Method practitioner in Western Springs, Illinois. Pann studied piano with his maternal grandmother, Emily Kvavli, from age six until eleven. The composer has noted that during this period of study with his grandmother he became obsessed with learning new piano repertoire and thinking about music.[7] Pann began composing at age eight, writing piano waltzes and "snippets of things" in a "half-letter sized notebook of staff paper."[8] In a visit to his home in Colorado during 2009, I observed this same type of notebook still in use by Pann.

Pann's piano studies continued from age eleven to fifteen with La Grange, Illinois, teacher Doreen Sterba and then with prominent Chicago pianist Emilio Del Rosario. Del Rosario was instrumental in encouraging Pann to study

---

[6] Pann, interview. See Appendix B, p. 107.
[7] Ibid., 109.
[8] Ibid.

composition while in high school and suggested he attend the Eastman School of Music. Pann frequently arranged music for his high school choir and at age sixteen began formal composition lessons with Howard Sandroff, Professor of Composition at the University of Chicago.[9] Pann describes his decision to pursue an undergraduate degree in composition rather than piano performance:

> I was becoming a composer in my head, it was a dream, and I wasn't letting go of that dream. I was also at the apex, the pinnacle of my pianistic abilities at that point. I was practicing seven hours a day. I was just feeding this fire of feeling good about music, and feeling confident that I could do it. I have to attribute that to my parents and their encouragement.[10]

Pann earned a Bachelor of Music degree in Composition from Eastman in 1994. While there he studied composition with Samuel Adler, Joseph Schwantner, Warren Benson, and David Liptak. Following his undergraduate studies, Pann entered the University of Michigan where he earned a Master of Music degree in Composition in 1996 and the Doctor of Musical Arts degree in Composition in 2004. His teachers at Michigan included William Bolcolm, William Albright, Bright Sheng, Evan Chambers, and Michael Daugherty.

Honors and awards Pann has earned include the Kazimierz Serocki Prize, the Charles Ives Scholarship from the Academy of Arts and Letters, and five ASCAP composer awards. He received a Grammy nomination for *Best Classical Composition of the Year* in 2001 for his *Piano Concerto No. 1*.[11]

---

[9] Pann, interview. See Appendix B, p. 110.
[10] Ibid., 111.
[11] Pann, biography. See Appendix D.

In 2001 the London Symphony under the direction of Daniel Harding performed Pann's nine-minute scherzo, *SLALOM*.[12] During the following year, Pann transcribed *SLALOM* for wind symphony in response to a commission by John Lynch and the University of Kansas Wind Symphony.[13] This ensemble and conductor featured a recording of *SLALOM* on the compact disc *Redline Tango* in 2006.[14]

During the period following *SLALOM's* transcription, Pann composed six compositions for wind symphony: *American Child* (2003), *The Wrangler* (2006), *Four Factories* (2006), *Concerto Logic* (2007), *Hold This Boy and Listen* (2008), and *Serenade for Winds* (2008).[15] *The Wrangler* was performed at the 2009 CBDNA National Conference in Austin, Texas, by the University of Georgia Wind Symphony, John Lynch, conductor. *SLALOM* and *Hold This Boy and Listen* are included on the *Texas Prescribed Music List*.[16]

Four Factories was commissioned in 2005 by John R. Locke and Kevin M. Geraldi, conductors of the University of North Carolina at Greensboro Wind Symphony. The work was composed between November 2005 and December 2006 with Kevin Geraldi conducting *Four Factories'* premier with the UNC-G

---

[12] Pann, biography. See Appendix D.
[13] John P. Lynch, "Teacher Resource Guide: *SLALOM* by Carter Pann," in *Teaching Music Through Performance in Band*, vol. 6, ed. Richard Miles (Chicago: GIA Publications, 2007), 882.
[14] Barry Kilpatrick, *Redline Tango*, *American Record Guide 69, no. 5* (2006): 257. Academic Search Elite, EBSCOhost (accessed June 8, 2009).
[15] Pann, list of works. See Appendix C.
[16] University Interscholastic League, *Texas Prescribed Music List*, http://www.uilforms.com/pmlbs.asp (accessed June 5, 2009).

Wind Symphony on February 16, 2007, in Strathmore Hall, Bethesda, MD.[17] Other significant presentations of the work include performances by Geraldi and UNC-G at The John F. Kennedy Center for the Performing Arts, Washington, DC, on February 17, 2007; and the University of Oklahoma Wind Symphony, William Wakefield, conductor, at the 2008 College Band Directors National Association (CBDNA) Southwest Division Conference in Kansas City, Missouri. The University of Arizona Wind Ensemble, Gregg I. Hanson, conductor, performed the first movement "Locomotive" at the 2008 CBDNA West/Northwestern Division Conference in Reno, Nevada; the 2008 CBDNA West/Northwestern Division Intercollegiate Honor Band, William Wakefield, conductor, performed the third movement "At Peace" at the same conference; and the University of North Carolina at Greensboro Wind Symphony, Kevin Geraldi, conductor, performed *Four Factories* in its entirety at the 2009 CBDNA National Conference in Austin, Texas.[18]

Related Literature

To date, no extensive research on *Four Factories* has been published or made available. One master's thesis has been written concerning Pann's music. This document, *Interpretive Analysis: Piano Concerto No. 1 by Carter Pann,* was

[17] Carter Pann, website, http://www.carterpann.com/works_fourfactories.htm (accessed June 15, 2009).
[18] College Band Directors National Association Conference, *Program Book,* (Austin, TX: March 25-28, 2009); College Band Directors National Association West-Northwest Regional Conference, *Program Book,* (Reno, NV: March 20-22, 2008).

written by Erik Alan Johnson in 2007.[19] Johnson's thesis provides an overview and musical analysis of Pann's *Concerto No. 1 for Piano and Orchestra*, composed in 1997.

The sixth volume of *Teaching Music Through Performance in Band* includes a chapter on *Slalom*, written by John P. Lynch.[20] Significant information regarding Pann's compositional style for large wind symphony is included in the chapter as well as a brief biographical sketch. A survey of *First Search, The Music Index, JSTOR, Oxford Music Online, ProQuest,* and *WorldCat* internet catalogs reveals no records of further research documents related to Carter Pann or *Four Factories*.

[19] Erik A. Johnson, "Interpretative Analysis: *Piano Concerto No. 1* by Carter Pann and *Serenade in C minor KV. 388* by Wolfgang Amadeus Mozart" (master's thesis, University of Colorado at Boulder, 2007).
[20] Lynch, 882-886.

CHAPTER 2

MOVEMENT I: "Locomotive"

The first movement of *Four Factories* roars to life, establishing the composition's mechanical premise through the imagined start-up of a large engine. Pann describes this basis in program notes for "Locomotive":

> The most minimal in style, this movement presents a large imaginary factory generator. Once the power finally gets revved-up and humming, the factory comes to life in a particularly bright orchestration of F major. This might be some kind of candy factory.[1]

In interviews, Pann has also referred to the first movement as "an evocation of a steam engine."[2] The composer's varied assertions regarding the programmatic effect of the first movement suggest that it is not directly representational, but rather suggestive of large, powerful machinery such as a locomotive engine. The movement begins with a dramatic opening section that is described by Pann with mechanical terminology:

> Everything before letter A is two attempted start-ups. These two attempted start-ups just die. Actually they short-circuit. At letter A you have this grinding of gears, which is sort of very muscular. This is just how can I unearth this thing that wants to start and you see it in this very strident writing. It's like trying to write electronic *music concrete* for band.[3]

The form of "Locomotive" is binary, constructed with two distinct sections that are repeated, followed by a coda. (Formal structure, section length, and key

---

[1] Carter Pann, program notes in score *Four Factories* (New York: Presser, 2006), n.p.
[2] Carter Pann, interview by the author, 7 May 2009. See Appendix B, p. 102.
[3] Ibid.

areas of “Locomotive” are illustrated in Figure 2.1.) Each section is clearly defined by programmatic, motivic, and harmonic elements. The introductory A section suggests multiple attempts at starting the large machine, incorporating harmonic and rhythmic instability, fanfare figures, and interrupting gestures. The contrasting B section is characterized by a driving ostinato pattern, consistently functional harmony, and a soaring main theme, which suggest that the musical engine is running smoothly. The return of each section is generally more grandiose, features thicker orchestration, extended phrases, and wider intervallic ranges. Finally, through the steady deconstruction of rhythmic activity from the B’ section, the coda brings “Locomotive” to a dramatic close.

Figure 2.1: Formal structure of “Locomotive”

Section	A	B	A’	B’	Coda
Measures	1-33	34-128	129-174	175-249	250-275
Pitch Center	unstable/G	F Major to G minor	G minor	F Major to G minor	G minor

Four Factories’ notion of grandiosity is immediately apparent in the large forces required, including six flute parts, six clarinet parts, and six trumpet parts. Four percussion parts are included with a large list of instruments for each player (see Figure 2.2). These numerous and varied forces are utilized for great programmatic effect in “Locomotive” and contribute to varied orchestration and texture throughout *Four Factories*.

Figure 2.2: Instrumentation of *Four Factories*

Piccolo	Percussion (4 Players)
Flute 1, 2, 3, 4, 5, 6	Percussion 1: siren with crank, high wood block, slapstick, ratchet, small triangle, rute sticks, sandblocks, glockenspiel, xylophone Percussion 2: medium high wood block, tambourine, rute sticks, medium suspended cymbal, small triangle, flexatone, chimes, marimba, vibraphone Percussion 3: medium low wood block, crash cymbals, small triangle, snare drum, medium suspended cymbal, anvil (brake drum), large timbale, glockenspiel, vibraphone Percussion 4: low wood block, bass drum, slapstick, snare drum, large cowbell, bongos, mark tree, log drum, chimes, timbales, medium suspended cymbal
Oboe 1, 2	
English Horn	
E-flat Clarinet	
B-flat Clarinet 1, 2, 3, 4, 5, 6	
B-flat Bass Clarinet	
Bassoon 1, 2	
Contrabassoon	
Soprano Saxophone	
Alto Saxophone	
Tenor Saxophone	
Baritone Saxophone	
Trumpet 1, 2, 3, 4, 5, 6	
Horn 1, 2 (4 Players)	
Tenor Trombone 1, 2	
Bass Trombone	
Euphonium 1, 2	
Tuba 1, 2	
Piano (and Large Tam-tam)	
Contrabass	
Timpani	

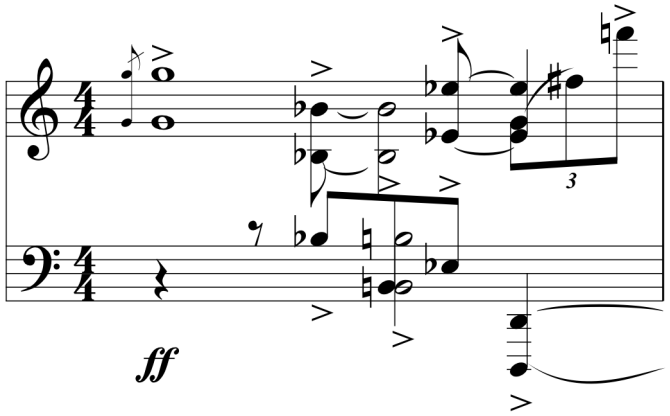
The A section serves as an introduction to both the first movement and the complete work. As the movement and work are intended to suggest a gigantic factory, Pann depicts the machine making several attempts to come to life.[4] This is accomplished by harmonic and rhythmic instability during much of the introduction, and presentation of programmatic motives that simulate the "revving" of machinery. The relative size of the A and B sections supports A as an introduction; it is one-third the size of B, however A material does return and is integral to the overall programmatic idea of "Locomotive" and *Four Factories* as a whole.

[4] Pann, interview. See Appendix B, p. 102.

Measures 1-33 present a series of “start-ups,” or fanfare figures followed by sustained chords, which are dragged downward through trombone and contrabass *glissandi* reinforced by chromatically descending contrabassoon. The combination of upward-moving fanfare and downward glissandi gives each start-up a general arch-shape. The initial tempo indication is quarter note equals 136, and score notes include *a tempo* at the second start-up in m. 8 and “*Muscular,* keep tempo” at mm. 16. Bass pitch motion from D to F-sharp and finally to G during these figures maintains forward motion while the return to initial tempo in each instance supports the feeling of multiple attempts at starting large machinery.

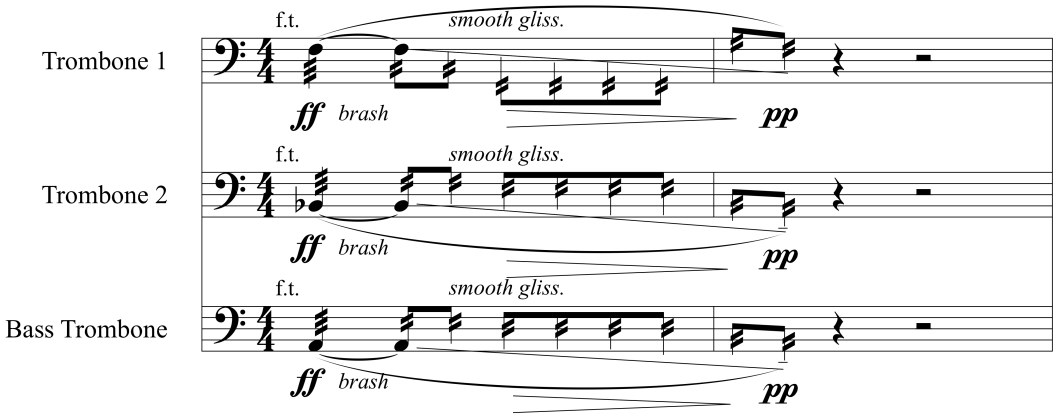
Pann’s opening fanfare figure utilizes leaps of a major seventh, creating a chord full of secundal relationships over a sustained bass pitch of D. Dissonant sounds, syncopated rhythms, and *fortissimo* dynamic level in this figure create energy and suspense that further Pann’s aggressive first start-up attempt (see Example 2.1).

Example 2.1: Pann *Four Factories*, i (m. 1) opening fanfare



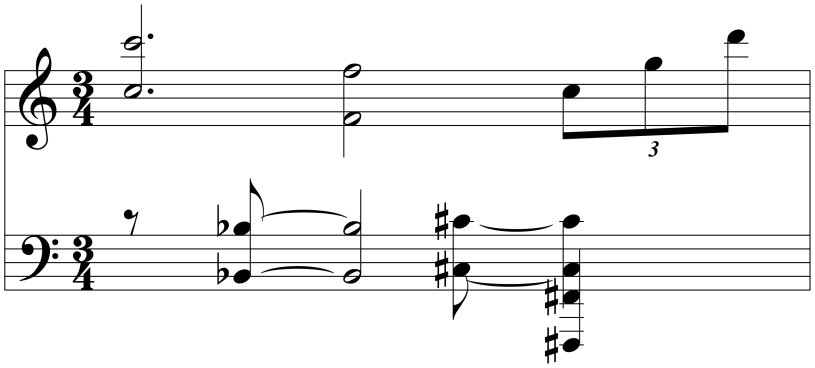
Example 2.2 shows the initial trombone *glissandi* that fizzle to silence, short-circuiting each attempted start-up.

Example 2.2: Pann *Four Factories*, i (mm. 5-6) trombone glissandi



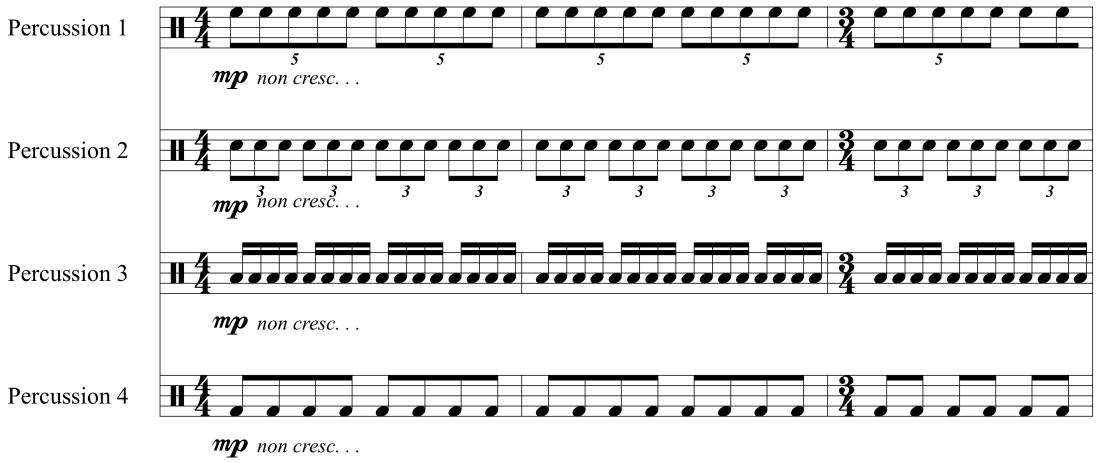
The second, slightly longer start-up attempt uses F-sharp as the bass pitch and is built on stacked perfect fifth intervals, whose consonance suggests a more successful endeavor. This figure is condensed in Example 2.3.

Example 2.3: Pann *Four Factories*, i (m. 8) second fanfare



As the machine attempts to start, a sense of disorganized rhythmic energy is created through polyrhythms found in high, medium-high, medium-low, and low woodblocks. Four layers of subdivision appear simultaneously in 2-to-1, 3-to-1, 4-to-1 and 5-to-2 ratios (see Example 2.4). These layers of rhythm appear during the start-ups and foreshadow the engine running at full speed later in the movement.

Example 2.4: Pann *Four Factories*, i (mm. 2-4) woodblock polyrhythms



Pann described his choice of woodblocks for these underlying rhythms:

> [T]he wood block part actually is nothing more than an evocation of machine sounds and clocks that keep ticking. Mechanical sounds but in four different color woodblocks. I didn't want to put them in metals, because metals would just completely eat up sound, just eat up the soundscape, so I had to put them in woodblocks.[5]

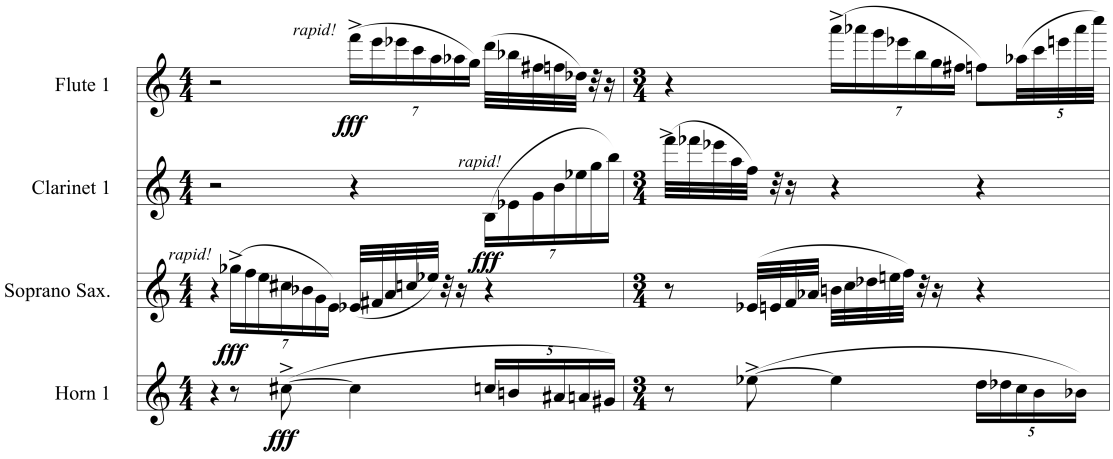
The sections of woodblock polyrhythms increase in length and energy during each start-up attempt, from three to four to seven measures. Furthering

[5] Pann, interview. See Appendix B, p. 102.

dramatic and programmatic effect, Pann inserts moments of silence after the first two start-up figures in m. 7 and m. 15. These silences occur as the engine begins to start and then dies, serving to interrupt rhythmic progress in the section and represent failure of the engine to start.

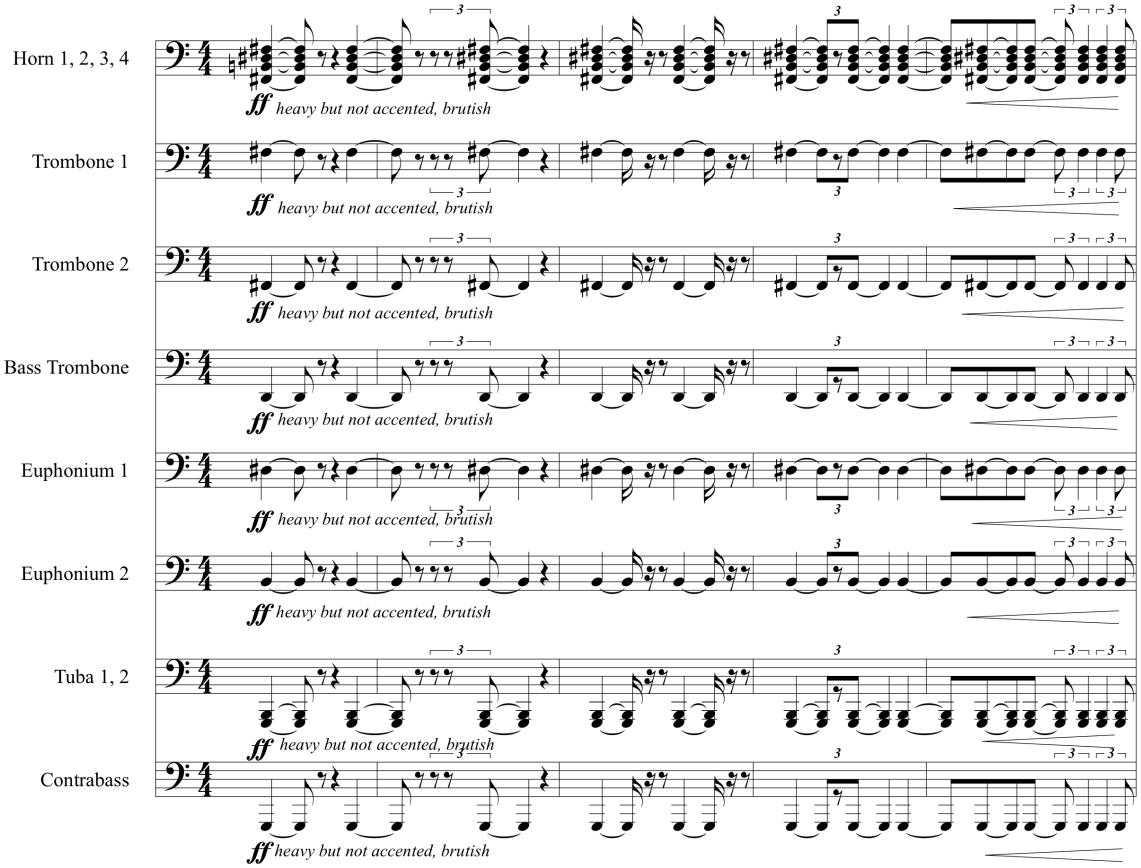
The first two start-up figures are arch-shaped, generally move upward in pitch during the fanfare portion and descend dramatically during the trombone *glissandi*. The third start-up at m. 16 presents a series of five overlapping arches and inverted arches in flutes, clarinets, saxophones, and horns (see Example 2.5). A suspended cymbal roll, anvil strike, and bass drum strike support the technical display in winds as these rapid, overlapping arch figures increase successive attack activity in mm. 16-17. This increase in activity signals a more promising start for the massive engine and furthers the programmatic notion of "Locomotive".

Example 2.5: Pann *Four Factories*, i (mm. 16-17) successive arches



Further forward motion is created in m. 18 as trumpets herald yet another triplet fanfare figure, while clarinets rapidly plunge downward in a chromatic sweep. Terminal trombone glissandi are notably absent from the third and more successful start-up attempt, replaced by a massive figure of diminishing note values in mm. 19-23. This generator motive resembles rotating mechanical equipment gaining speed and power during each revolution, much like a large carnival ride. The low reeds, horns, low brass, and string bass present an unwritten accelerando created by a series of diminishing note values on a harsh-sounding G augmented major seventh chord. A dense texture is created by close scoring of this harmony in mid- to low-range instruments, as shown in Example 2.6.

Example 2.6: Pann *Four Factories*, i (mm. 19-23) generator motive

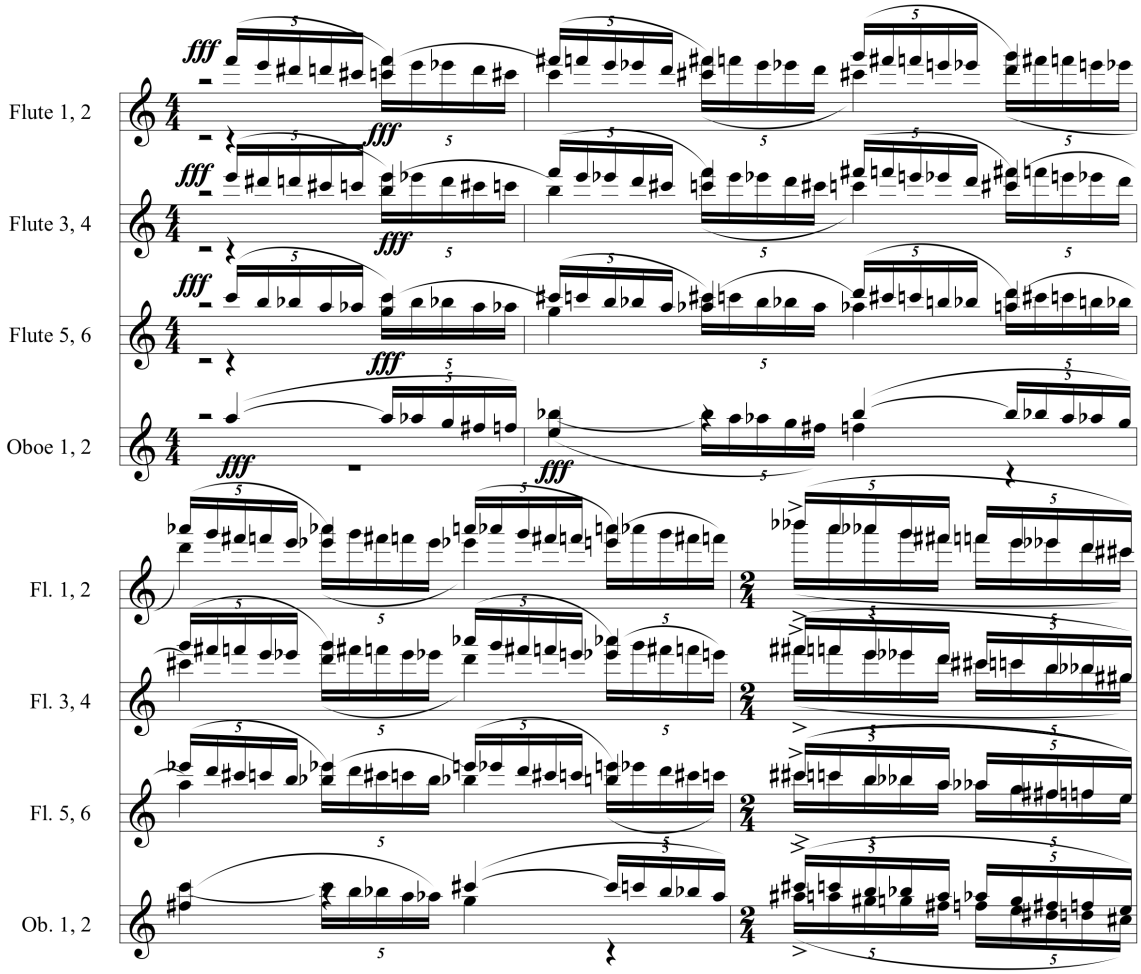


The sheer forcefulness of low brass and low reeds in unison rhythm makes the generator motive a highly compelling programmatic feature. This feeling is furthered by the score indication “heavy but not accented, brutish” and assisted by energy stemming from upper woodwinds playing alternating static sixteenth-notes on successive beats. A bass pitch of G in m. 19 completes motion from D in the first start-up attempt to F-sharp in the second, establishing G as a tonal center for the A section. The culmination of this harmonic motion provides resolution that further strengthens the third start-up attempt.

Momentum created by the generator motive is carried in mm. 24-32 by increased rhythmic activity and a rising pitch level. An *accelerando* heightens this increasing activity during mm. 27-29, bringing the tempo to quarter-note equals 152. Pann describes the quintuplet material that follows the generator motive as a concept of wind, or "flurries" that the composer "copped" from John Corigliano's *Symphony No. 1*.[6] The "flurries," accelerando, and overall increased rhythmic activity are "in service of building up this generator."[7] Example 2.7 shows flurries in flutes and oboes, whose series of quintuplets provides increased rhythmic activity and rise in pitch that resembles the whirr of a high-speed machine.

[6] Pann, interview. See Appendix B, p. 102.
[7] Ibid.

Example 2.7: Pann *Four Factories*, i (mm. 29-32) Corigliano flurries



Measures 24-28 maintain G as the tonal center while the woodblocks "accelerate ad. lib" and increase in volume. In mm. 29-32, Pann accelerates harmonic motion through a series of major chords: F major in m. 29; and C major, E major, D major, and G-flat major chords in mm. 30-32. In m. 33-35 a plagal cadence is created in the key of F major through the use of cadential F major six-four, B-flat nine, and F major chords. Viewed through the prism of F major tonality, the G-flat major chord in m. 32 has a Neapolitan function.

The A section concludes with what the composer calls “boot straps” or “a belt that gets so tight it breaks.”[8] In a grand arch-shape, E-flat clarinet, clarinet 1, and clarinet 2 scream above the staff forming an F major triad before cascading downward two octaves. Furthering the intensity of this gesture, the dynamic level is indicated as *fff* and the score marking is “rapid, brilliant.” A half-note roll for two triangles leads to a slapstick striking on the downbeat of m. 34. Example 2.8 illustrates the clarinet’s stinging boot-strap figure.

Example 2.8: Pann *Four Factories*, i (m. 33) clarinet boot-strap

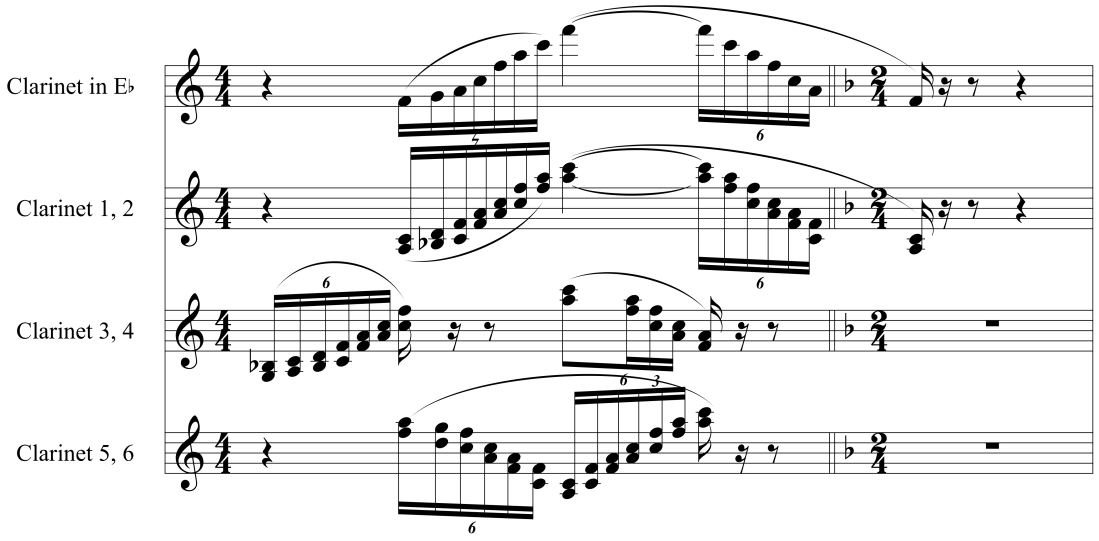


Figure 2.3 graphs the progress in the A section from bass note motion during the start-up figures to the establishment of G tonal center, and finally to F major.

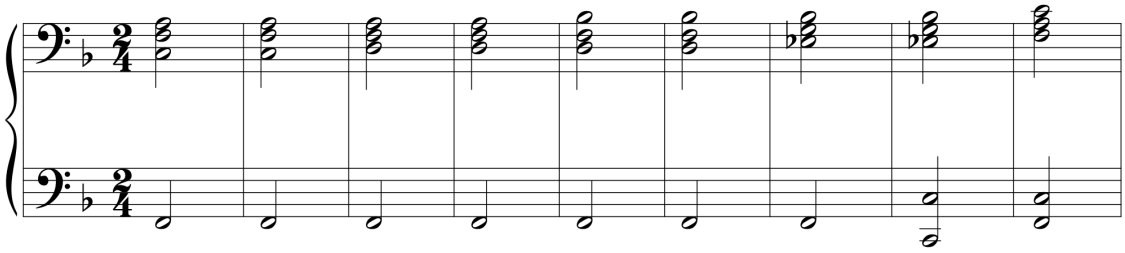
[8] Pann, interview. See Appendix B, p. 103.

Figure 2.3 A section event description and harmonic graph of “Locomotive”

Measure	Figure	Harmonic Description
1-7	start up #1	D in bass
8-14	start up #2	F-sharp in bass
15-25	start up #3/generator	G in bass
26	trumpet wind gestures	G minor six-four
29	flute wind gestures	F Major
30		C Major, E Major, D Major
31		G-flat Major
33	boot strap	F Major six-four, B-flat Major 9 cadence
34	ostinato begins	F Major

The introductory A section which is defined by rhythmic interruption and harmonic instability, now dramatically brings its machinery roaring to life. In contrast to the unstable A section, the B section opens with a symmetrical eight-measure ostinato figure that utilizes relatively functional common-tone harmony in the key of F major. Example 2.9 presents a reduction of this progression in mm. 34-42.

Example 2.9: Pann *Four Factories*, i (mm. 34-42) ostinato harmony



	F	d^6	$B\flat_4^6$	$E\flat$	c^7	F
F Major:	I	vi	IV_4^6	VII	v^7	I

The material that Pann uses as the basis for the B section is extracted from *Tributaries*, a set of string etudes commissioned by The Rivers School in Weston, Massachusetts.[9] Pann describes his use of the *Tributaries* material in "Locomotive":

> One of these *Tributary* etudes was this thing with sixteenth notes going up and down, up and down, for two strings in F major. And basically I took the harmonies from that etude and remapped them into the first movement of *Four Factories* at letter B, which is when the factory proper begins. And so letter B and its consequent, letter G, have the same harmonic landscape as this one *Tributary*. I called them *Tributaries* because it was for The Rivers School.[10]

The B section begins at m. 34, establishing Pann's machine with "unbelievable giddiness" at a tempo of quarter-note equals 160.[11] Some form of the ostinato pattern remains throughout the B section, interspersed with brief motivic gestures. Pann describes the effect in the B section as his attempt at "doing minimalism".[12]

Minimalism is defined by the *Oxford Dictionary of Music* as the following:

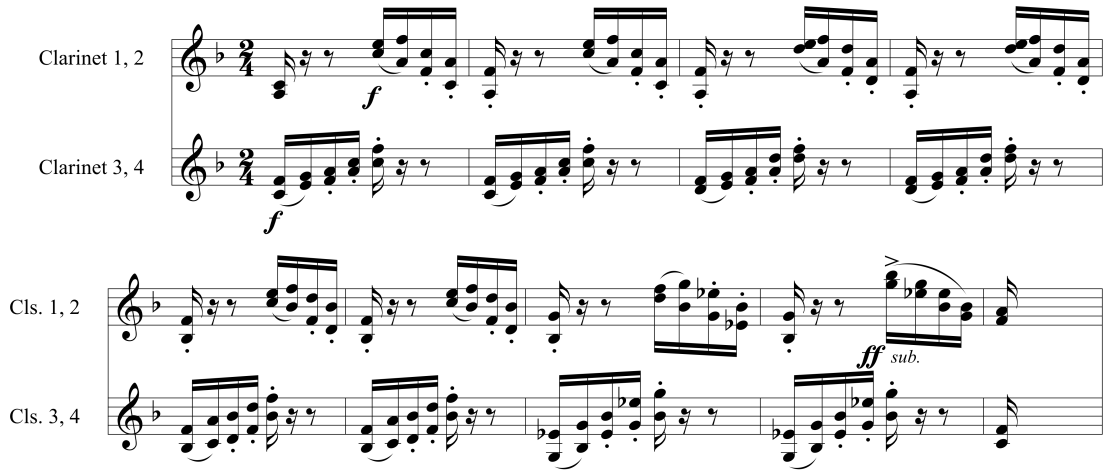
> Term applied to style of music which began in 1960s involving repetition of short musical motifs in a simple harmonic idiom. The minimum of material is repeated to maximum hypnotic effect.[13]

---

[9] Pann, interview. See Appendix B, p. 123.
[10] Ibid., 124.
[11] Ibid., 103.
[12] Ibid., 95.
[13] "Minimalism." In *The Oxford Dictionary of Music*, 2nd ed. rev., edited by Michael Kennedy. *Oxford Music Online*, http://www.oxfordmusiconline.com/subscriber/article/opr/t237/e6824 (accessed June 20, 2009).

While the ostinato pattern shown in Example 2.10 could be described as "repetition of short musical motifs," Pann changes orchestration and introduces motivic gestures too frequently to truly meet the second definition of minimalism.

Example 2.10: Pann *Four Factories*, i (mm. 34-41) ostinato pattern in clarinets



This eight-measure pattern is initially established at m. 34 in clarinet parts 1-6 and flute parts 3-6. The ostinato pattern constructed with sixteenth-note patterns is supported harmonically by eighth-notes in bassoon, tenor saxophone, baritone saxophone, piano, and contrabass. From mm. 42-112, Pann generally maintains the ostinato pattern in an increasingly thicker orchestration. Several motivic gestures are inserted into the ostinato beginning at m. 51, as shown in Figure 2.4.

Figure 2.4 B section motivic gestures of "Locomotive"

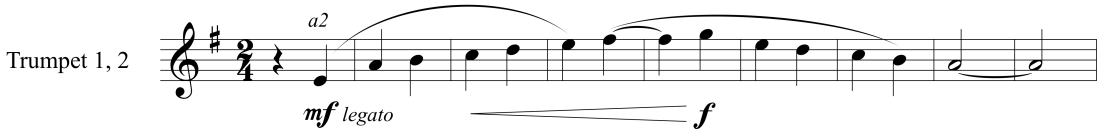
Gesture	bass clarinet solo	integrated melody	32nd note arch
Measures	51-57	88-95	97-109
Instrument	bass clarinet	2nd trumpet	bassoon/euphonium

Each of the gestures listed in Figure 2.4 creates contrasts in texture, maintains forward motion, and transitions toward the main theme. Each gesture is subsequently longer in duration and the arch-shaped figure in mm. 97-109 foreshadows the movement's main thematic material. The ostinato figure is less pervasive in mm. 96-112, but rhythmic energy is maintained through layering of sixteenth-note in flutes, horns, piano, marimba, and sextuplets in snare drums played with brushes.

In mm. 113-121 Pann's attempt at minimalism relents to a soaring step-wise main theme in G minor presented by oboe, English horn, clarinets, bassoons, trumpets, low brass and piano. This "soaring tune," as described by Pann, takes a broad arch-shape that rises above the *ostinato* and contrasts with the previous series of minimalist gestures.[14] An expanded orchestration to *tutti* ensemble furthers this contrast with previous material while motion to G minor prepares the listener for the impending return of the A' section. Example 2.11 shows the melody as found in trumpet 1 and trumpet 2.

[14] Pann, interview. See Appendix B, p. 104.

Example 2.11: Pann *Four Factories*, i (mm. 113-121) "soaring tune"



While the "soaring tune" is an outgrowth of arch-shaped figures found in the A section start-up material and gestures incorporated into the B section *ostinato*, this theme also presents characteristics that are found in melodic material throughout *Four Factories*. These characteristics include intervallic relationships consisting primarily of seconds, with a limited number of leaps; a rise and subsequent mirrored descent in pitch-level, or a fall in pitch-level followed by a mirrored rise; and as will be seen in the B' section, an aggrandized second appearance of melodic material which serves a developmental purpose.

Beginning in m. 122 the rhythmic activity of the B section is reduced to repeated sixteenth-notes in the piano and string bass under a G minor chord in the flutes. A series of bass drum eighth-notes leads to an upward glissando for bassoon, contrabassoon, trombones, bass trombone, euphoniums, and tuba in m. 128. Pann indicates in the score:

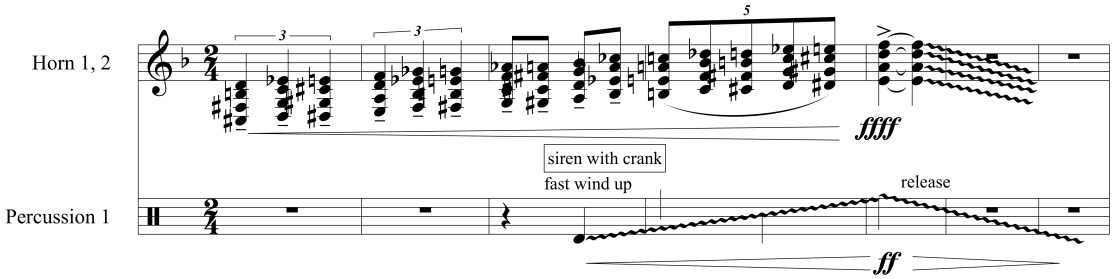
> Brass and Bassoons: Swoop up like an elephant's wail to a non-descript high pitch with a very small taper-down over the barline. An ugly, shocking effect![15]

This "shocking effect" marks an end to the "soaring tune" of the B section and is immediately followed by material reminiscent of mm. 1-33. A' begins at m. 129 with a return of multiple woodblock parts, secundal harmony, and start-up

[15] Carter Pann, *Four Factories* (New York: Theodore Presser, 2006).

figures. When the generator motive returns, it is greatly expanded from five measures to fifteen and transposed up a half-step. In discussing this second occurrence of the generator motive, Pann states that it is "scored for more brass instruments and rises by half-step. I added contour and it adds excitement."[16] Heightened energy from this expansion is supplemented by the inclusion of siren in m. 161.

Example 2.12: Pann *Four Factories*, i (mm. 159-165) rising generator motive



Pann explains the use of siren as furthering the urban and mechanical aspects of "Locomotive." He states:

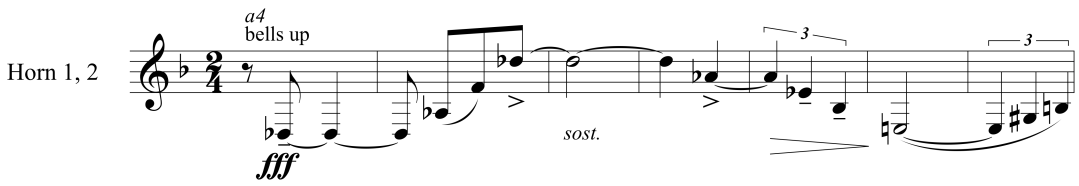
> [W]henever I hear siren it's always a modern piece and it's always so distinctive and very in your face – you can't lose the siren. So I decided to just throw that in. Siren is a city sound. It's a street sound and at the climax of the first movement it's exactly what needed to be there, a siren.[17]

The siren's scream leads to an heroic arch-shape figure in horn, alto saxophone, tenor saxophone, and English horn in mm. 166-172. This arch-shape, which occurs during the mathematical golden mean of 0.618 at m. 170, is presented at the dynamic level *fff* and with horns indicated "bells up" in the score

[16] Pann, interview. See Appendix B, p. 105.
[17] Ibid., p. 122.

(see Example 2.13). Pann has described this brash figure as encompassing the shape of the movement and "taking the notion of climax all the way."[18] It is at this moment that the giant machinery groans as if this second start-up is more than it can sustain.

Example 2.13: Pann *Four Factories*, i (mm. 166-172) heroic arch-shape in horn



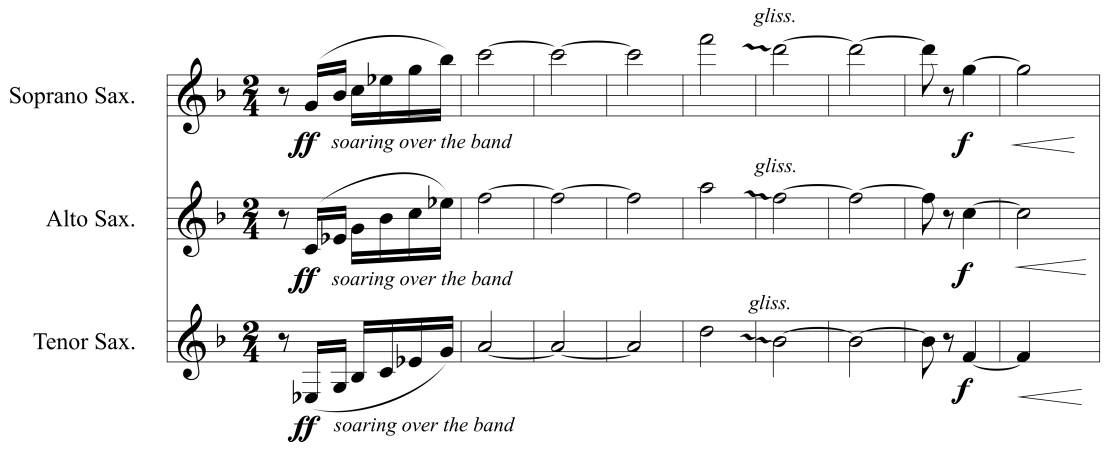
Following the climax at mm. 166-172, Pann intensifies the return to B material in mm. 175-249 through expanded instrumentation. The B' section begins with the sixteenth-note ostinato pattern in F major presented in six flute parts, six clarinet parts and e-flat clarinet. Supporting eighth-notes are now found in bassoon, trumpet, trombone, euphonium, tuba, and contrabass parts. The piano part contains sweeping quintuplet figures with the score instruction to be played "like a harp." The use of increased forces along with score marking "Charged to the End" heightens the intensity of the B' section material and prepares the listener for closure.

Motivic gestures appear during mm. 182-231, including two sweeping arch-shaped figures in the saxophones and horns. The first, scored for soprano,

[18] Pann, interview. See Appendix B, p. 106.

alto, and tenor saxophones in mm. 182-197, is presented at fortissimo dynamic and includes the score instruction “soaring over the band.”

Example 2.14: Pann *Four Factories*, i (mm. 182-190) saxophone glissando



As this figure descends from its peak, a *glissando* is indicated in soprano saxophone, alto saxophone, and tenor saxophone parts in mm. 186-187 and the alto saxophone and tenor saxophone parts contain *glissandos* in mm. 194-196. These effects provide a sense of the machine’s intense energy flowing through the saxophone sound over the driving sixteenth-note and eighth-note rhythms in other voices.

Horns respond in mm. 199-210, presenting material that, like bassoons and euphoniums in mm. 97-109, foreshadows the primary theme. Pann then breaks away from the ostinato pattern at m. 219, maintaining rhythmic energy in layers of sixteenth-notes in flute, trumpet, horn, piano, marimba, and vibraphone; and sextuplets in snare drum played with brushes.

The final statement in the B' section is a return of the main thematic material, again in G minor. The "soaring tune" returns in a greatly expanded role. It is now fifteen measures in length compared to the nine measures of its initial iteration. The dynamic range is increased to include a *crescendo* to *fortissimo* and instrumentation now includes all brasses, oboe, English horn, bass clarinet, bassoon, contrabassoon, and saxophones. Arch-shaped melodic material is employed once again, rising optimistically above the texture before crashing downward at *fortissimo* dynamic.

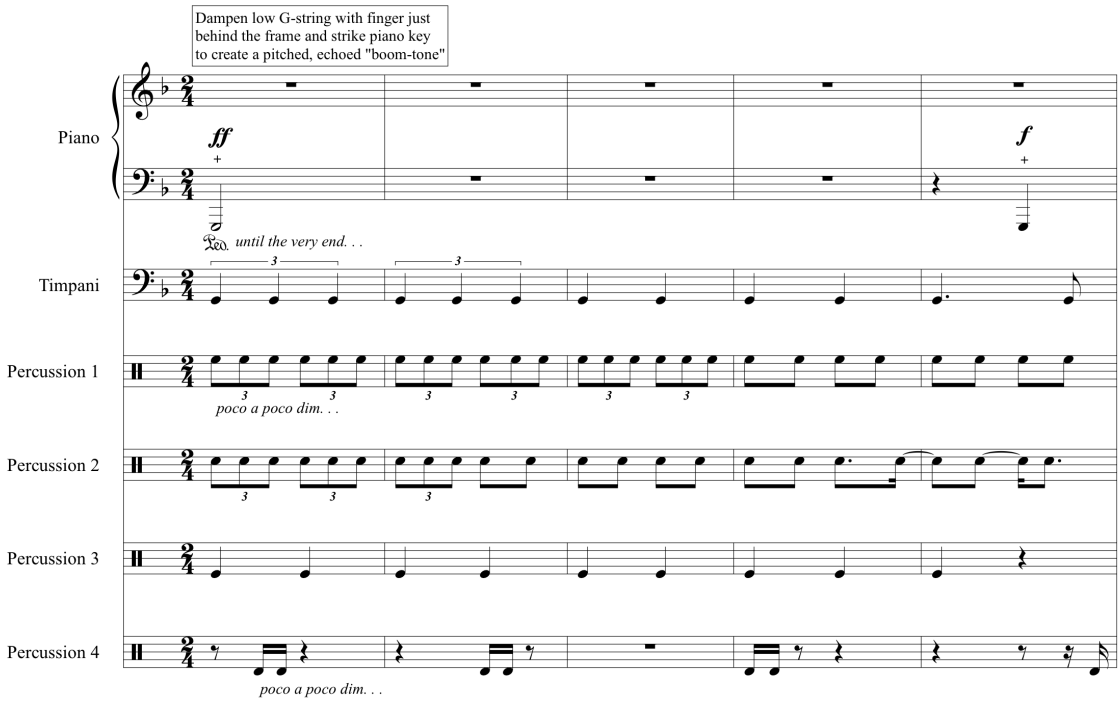
Horns interject a rude, heralding sixteenth-note fanfare with the indication "…lift bells up!" during m. 243 followed by descending eighth-notes which are rhythmically offset from the "soaring tune". These effects work to destabilize the tune and demonstrate that the great machine has been undone by its own intensity. The subsequent demise of Pann's "Locomotive" machinery is suggestive of an absence of the optimism that has characterized the movement.

The final task of halting "Locomotive" is accomplished through deconstruction of underlying rhythms in percussion. During the A and A' sections, unstable mechanical energy has been represented in woodblock polyrthythms, or layers of duple, triple, and quintuple rhythms. Pann chooses to steadily wind down this energy, giving the impression that the machine has been switched off and its internal components are exhausting their momentum. This effect begins with the start of the coda in m. 250, as anvil, woodblock, bass drum, timpani, and piano create "the illusion of an even rallentando, using notated

rhythms as a guide."[19] The selection of anvil, played with two carpentry hammers, is a final nod to the mechanical nature of the movement. The pitch center remains on G throughout the coda.

Example 2.15 reveals overlapping rhythms, each of which is steadily diminishing in speed. Woodblock eighth-note triplet rhythms give way to eighth-notes, anvil quarter-notes and bass drum sixteenth-notes appear with less frequency, and timpani quarter-note triplets shift to quarter-notes. Each of these trends continues until the final measure.

Example 2.15: Pann *Four Factories*, i (mm. 257-261) coda material



[19] Pann, *Four Factories*.

This steady winding down of rhythmic energy suggests that Pann's machinery has been switched off and is now losing its power. When asked why he didn't conclude "Locomotive" more heroically, the composer answered:

> That wouldn't be as mechanical as I want these movements to be. That would be too organic a way to end these movements. I like organicism inside these movements but that would be too soft for [*Four Factories*]. Other pieces can be soft and cushy. You picked a mean piece.[20]

Maintaining the established mechanical premise, Pann's understated coda material brings a final fade-out to the first movement of *Four Factories*. The large machine that has endured attempted start-ups and roared to life in a minimalist-inspired ostinato doesn't end with a grand finale or a bang, but rather a whimper, negating the optimism and forward motion which dominate the movement. In summary, "Locomotive" establishes a mechanical premise for *Four Factories* through the use of great programmatic effect, suggests a destructive nature in Pann's music, and reveals arch-shaped melodic figures that characterize the broader composition.

[20] Pann, interview. See Appendix B, p. 106.

CHAPTER 3

MOVEMENT II: "Gothic"

Carter Pann initially composed "Gothic" in 2001 as the third movement of his String Quartet No. 1 *Love Letters*, titled "Limbo". The composer re-orchestrated his original first forty-two measures and added an additional twenty-one measures of new material for *Four Factories*. These additions include a dramatic interruption of the primary theme and a coda.

The movement title suggests a time before the industrial age, as the height of Gothic architecture occurred during the late Medieval Period. The composer indicates that the title is a "visual evocation" of a "huge stone-mason's cathedral" from the "1100s."[1] Upward sweeps and a plagal cadence in the opening measures initially support this assertion. Pann's music, however, seems very Baroque, presenting itself in B-minor and with the stability of ternary form. The Baroque character of the movement is furthered in the A section by a steady supply of sixteenth-notes in low reeds, sandblocks and piano which contrasts with a simple bass line presented by the contrabass. The interaction of these parts in the score is visually suggestive of *basso continuo*. When asked if he intended these characteristics to suggest a Baroque style, Pann responded:

[1] Carter Pann, interview by the author, 7 May 2009. See Appendix B, p. 101.

> Yes, yes, yes, yes. That's how I think of it. You look at the shape of the driving sixteenths and that's a very Baroque style. With a melody going over this foundation. A melody that is more step-wise than the actual accompaniment and very clearly in contrast to it. In fact there is a third line which is the walking-down bass in the fourth bar that always accompanies that. There are three voices going on and they are very Baroque.[2]

Figure 3.1 outlines the formal structure and harmonic focus of the movement. Pann states that "Gothic" is a "miniature rondo form" and the movement's phrase structure supports this assertion at the micro-level.[3] However, at the macro-level "Gothic" is a ternary form, with the A section defined by shared characteristics in mm. 4-19 and the contrasting B section established in mm. 20-27. The relative brevity of phrases b and a' contributes to this conclusion. The overall ternary form and underlying rondo phrase structure, with alternating sections of B minor and G major, suggest a predictable strength and stability not unlike the flying buttress characteristic of Gothic architecture.

[2] Pann, interview. See Appendix B, p. 125.
[3] Ibid., 126.

Figure 3.1: Formal Structure of "Gothic"

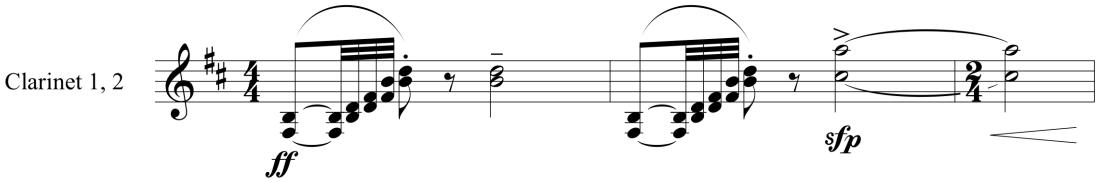
Section	Phrases	Measures	Pitch Center
Introduction		1-3	B minor
A	a	4-11	B minor
	b	12-15	G Major
	a'	16-19	B minor
B	c	20-27	G Major
A'	a	28-35	B minor
	b	36-41	G Major
	a"	42-50	B minor
Coda		51-63	B minor

"Gothic" begins with two *fortissimo* upward sweeps in flute 5 and 6, oboe, and clarinet in mm. 1-3 (See Example 3.1). These figures open "Gothic" with an immediate energy, indicating that *Four Factories* continues past its rambunctious initial movement. The sweeps described by Pann as "ribbons of thirty-second notes" are supported by a root position B-minor sonority established in bassoons, trombones, euphoniums, piano and contrabass.[4] The score indication "sternly" appears in these voices as a further assertion of the new movement's character. The three-measure introduction is presented in an unbalanced series of two four-four measures followed by a shortened two-four measure. Motion from a B-

[4] Pann, interview. See Appendix B, p. 126.

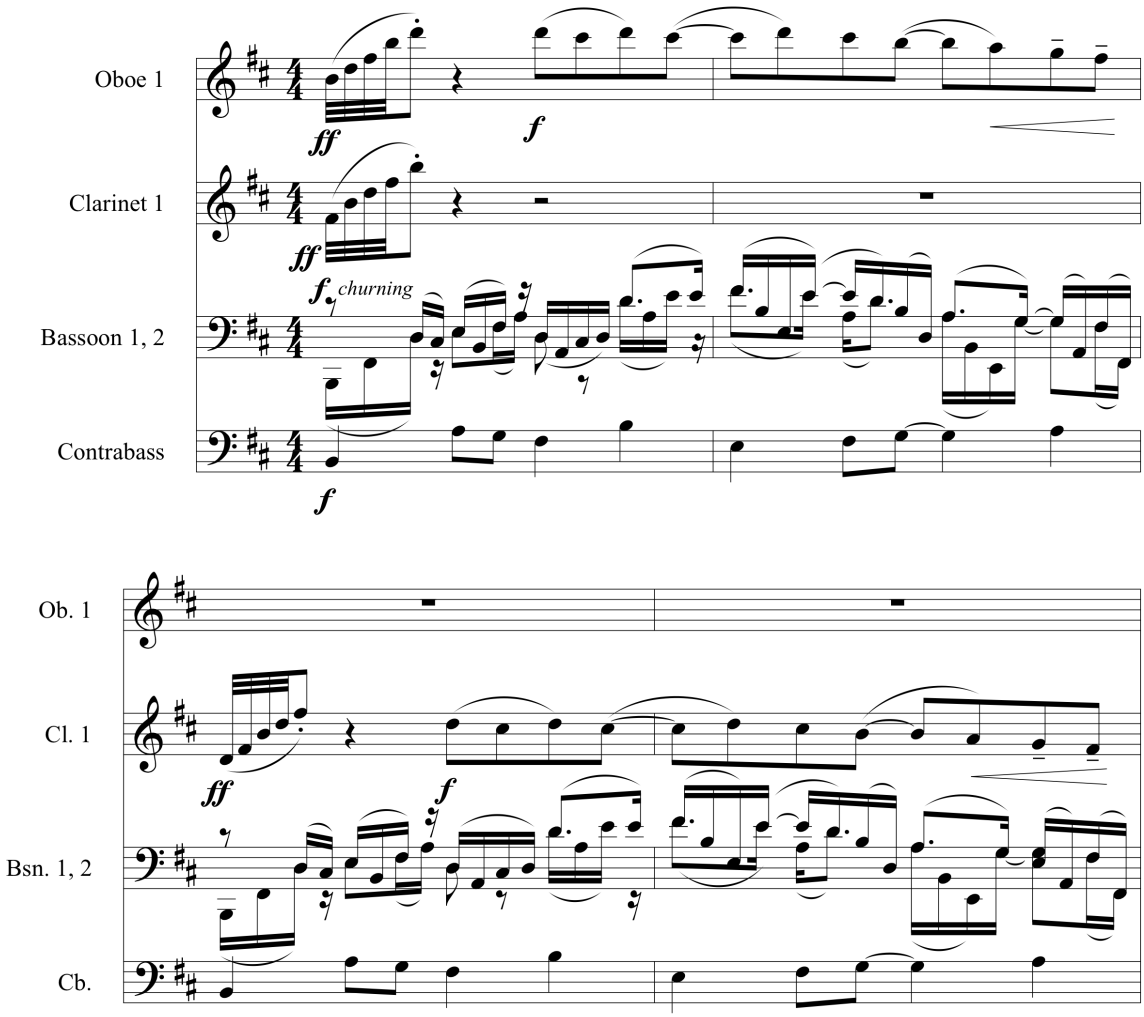
minor chord to a sustained, extended E-minor thirteen chord in mm. 2-3 creates a plagal cadence leading into the A section.

Example 3.1: Pann *Four Factories*, ii (mm. 1-3) introductory upward sweeps



An upward sweep occurs again at m. 4, adding piccolo and flutes 1-4, this time heralding the start of a step-wise A theme in flutes and oboes. B minor tonality remains and the eight-measure phrase is divided into a series of two-measure units of upward sweeps, each followed by step-wise legato flowing lines. Each two-measure unit of upward sweep and flowing line is echoed in the two measures that follow. Example 3.2 shows the upward sweeps and step-wise melodic material, first in oboe 1 and then echoed in clarinet 1 in mm. 4-7, along with an active bass line in contrabass and the sixteenth-note continuo-like material in bassoons.

Example 3.2: Pann *Four Factories*, ii (mm. 4-7) A section material

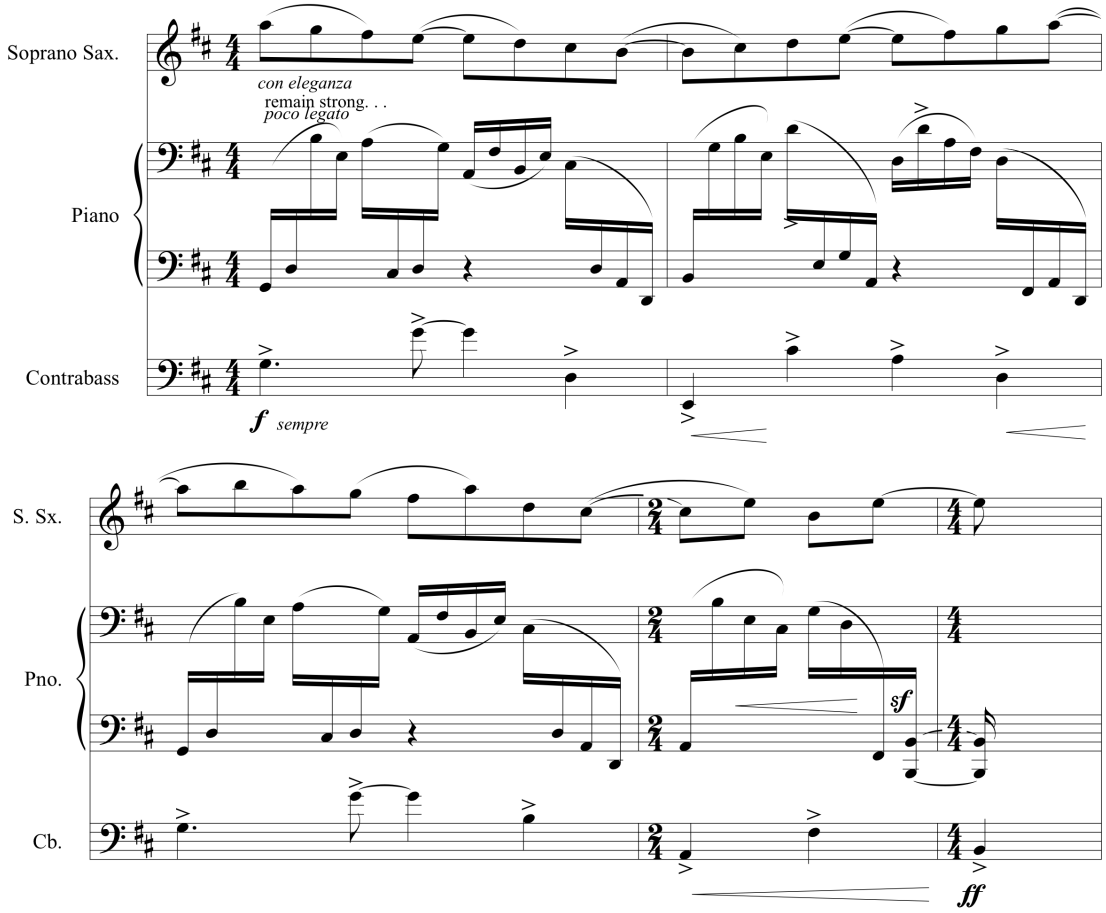


A similar pattern of upward sweeps followed by flowing lines completes the phrase in mm. 8-11, with the orchestration thickened by the addition of muted trumpets.

The four-measure second phrase begins at m. 12 and serves as a consequent to mm. 4-11. Flutes, clarinets, and soprano saxophone present flowing eighth-notes with the score marking *con eleganza* in a refreshing G major tonality, which the composer describes as a “pretty answer” to mm. 4-11 in B

minor.[5] Driving sixteenth-notes continue in bassoon, tenor saxophone, piano and sandblocks, while the bass line is more aggressive, featuring syncopated rhythms and an initial octave leap. In m. 15 this "pretty answer" is interrupted or truncated by a two-four measure with a startling crescendo to fortissimo dynamic level (see Example 3.3).

Example 3.3: Pann *Four Factories*, ii (mm. 12-16) B section material

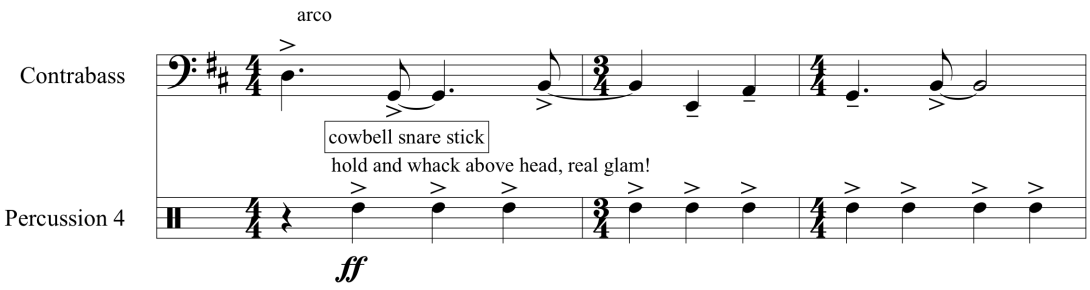


[5] Pann, interview. See Appendix B, p. 126.

A material returns at m. 16 in the original key of B minor, presented in oboes and clarinets, and now decorated with flute and piccolo sixteenth-note arpeggios. Basso continuo-like material remains in piano, contrabass, and sandblocks, with contrabass now at fortissimo dynamic level. Measures 18-19 complete the return of A, with the addition of support from soprano, alto, and baritone saxophones.

The B section of "Gothic" is constructed with an eight-measure phrase in mm. 20-27. Scoring of the melody for trumpets and soprano saxophone, syncopation, and the striking use of cowbell quarter-notes mark a dramatically different texture and feeling that Pann refers to as a "cowbell jam."[6] Example 3.4 shows the syncopated bass line and accented cowbell quarter-notes with explicit score indication.

Example 3.4: Pann *Four Factories*, ii (mm. 20-22) "cowbell jam"



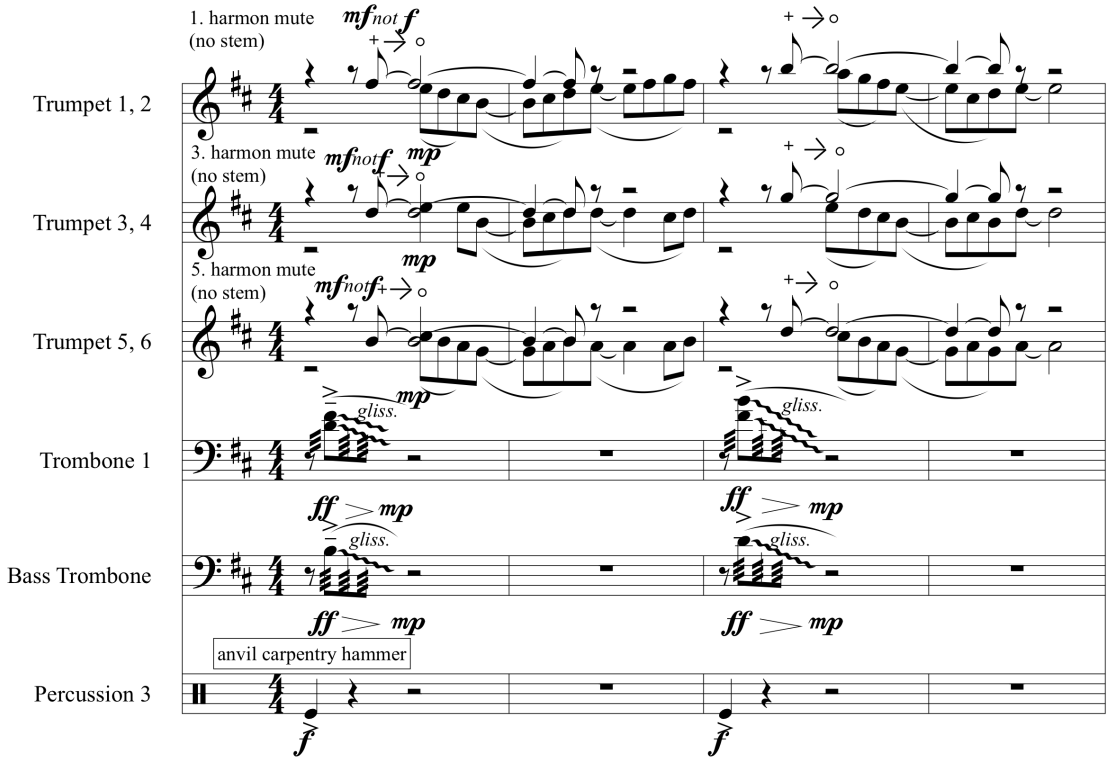
During mm. 20-23 of Pann's "cowbell jam," driving sixteenth-notes continue in marimba, while the piano joins low reeds, low brass, and string bass in providing harmonic support. Cowbell enters on beat two of m. 20, creating a

[6] Pann, interview. See Appendix B, p. 126.

metric uncertainty by being one beat late. This feeling continues into mm. 24-27 until flutes, who create a double-strike effect with articulated sixteenth-notes, join with oboes to thicken the texture in m. 27. To further the metric instability, three-four measures are inserted in the second measure as well as at the first and final measures of the second phrase. The indicated *fortissimo* dynamic level and the addition of flute and oboe add momentum as the B section concludes.

The first four measures of A material return in mm. 28-31 without modification. At this point, the movement feels like a predictable ternary form: A-B-A, and could end. Pann instead chooses to develop the A material by radically altering mm. 32-35. Upper woodwinds are completely removed and melodic material is presented in saxophones, trumpets, and piano. The upward sweeps that have defined “Gothic” are absent and are replaced by several effects, including anvil strikes played with carpentry hammer, rude trombone glissandi, and trumpet harmon-mute sounds (see Example 3.5).

Example 3.5: Pann *Four Factories*, ii (mm. 32-35) A material developed



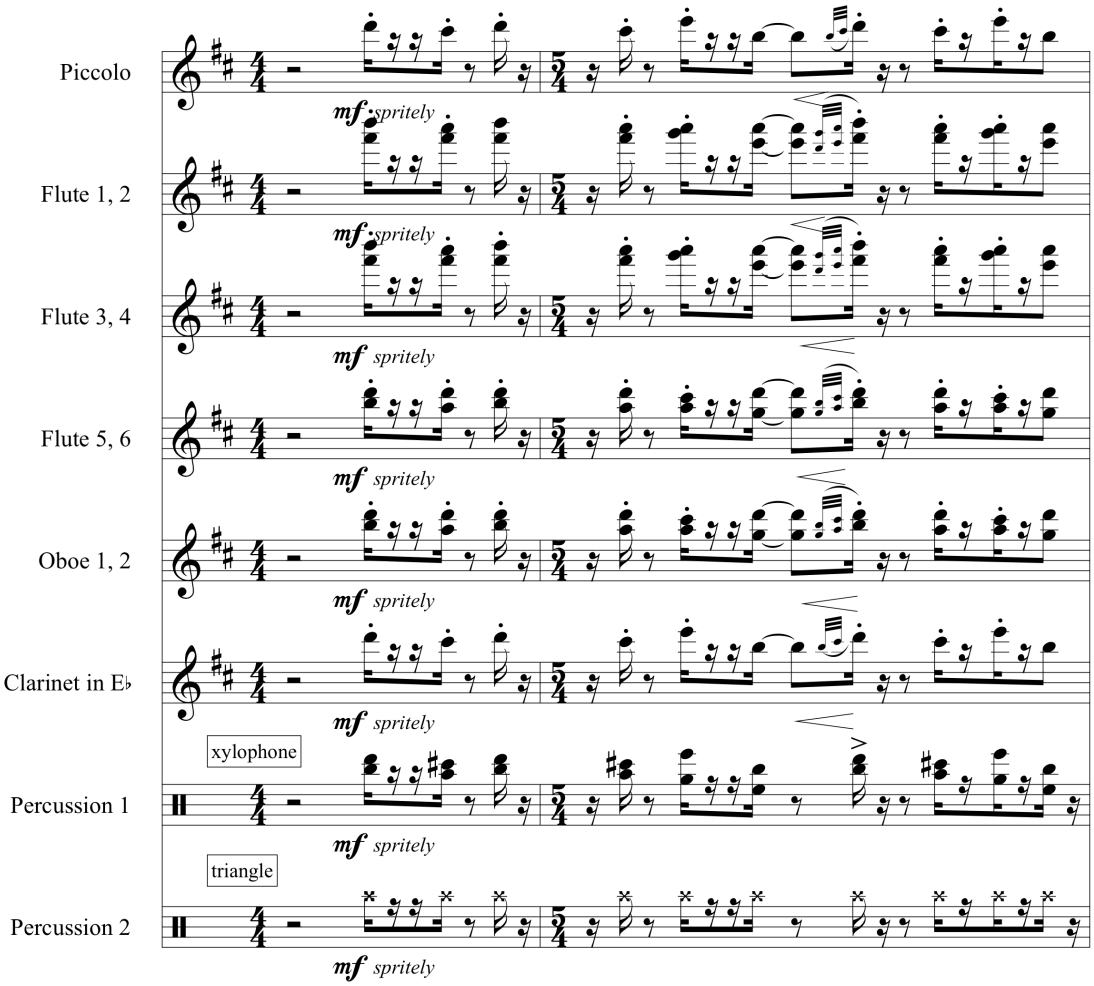
As in the transition from B to A' in mm. 27-28, flutes once again serve as a bridge to the next phrase. In m. 35 all six flute parts sweep upwards in scalar thirty-second notes that lead to a return of the four-measure b phrase. As m. 36 begins the composer gives the score indication "smooth walking…" and reduces instrumentation substantially. The upper woodwinds, piano, and glockenspiel present melodic material, while the bass line and aggressive eighth-note figures have been abandoned. These changes create a much lighter, ethereal texture for the final presentation of the b phrase. Measures 40-41 serve as an extension of the four-measure b phrase as Pann outlines a D major triad in E-flat clarinet and trumpet 1, while returning to syncopation reminiscent of the "cowbell jam."

Orchestration dramatically increases to *tutti* ensemble and all six flute parts utilize the double-strike effect to assist in the transition.

Pann begins the a" phrase in m. 42, but its life is cut short by a sudden rhythmic intrusion by "spritely" upper woodwinds, xylophone, and triangle in m. 43 (see Example 3.6). This rhythmic event, which is referred to by the composer as "a huge dominant sound", is constructed with an F-minor eleven chord in third position.[7] To enhance this effect, Pann adds energy with static sixteenth-notes in horn 1 and 2 and snare drum played on the rim with wire brushes. The intrusion at m. 43 serves as a destructive force in "Gothic" and marks the start of material not found in Pann's earlier composition "Limbo."

[7] Pann, interview. See Appendix B, p. 126.

Example 3.6: Pann *Four Factories*, ii (mm. 43-44) rhythmic event



For a fleeting moment in m. 45, A material is suggested once again, but mm. 46-47 make it clear that the "miniature rondo" will not continue. While Pann describes the spritely intrusion in mm. 43-44 as an "event", an interruption that occurs in mm. 47-50 is so grandiose the composer refers to it as a "derailment."[8] Like "breaking suspenders," a rhythmic wind-up of contrary motion thirty-second notes, quintuplets, and horn glissando occurs in m. 46. This wind-up leads to a single eighth-note tone cluster in m. 47 marked with a *sforzando*. As the cluster

[8] Pann, interview. See Appendix B, p. 126.

of sound rapidly deteriorates, piccolo and flutes begin an unmetered "chromatic descent, slowing at a random pace" against trombones and contrabass, who glissando upward, and xylophone, which maintains a constant pitch.[9] The score marking for mm. 47-50 indicates that these measures should be timed at +/-10 seconds.

Pann's interruption of melody, bass motion, pitch level, and dynamic level leads to a beat of silence marked with a fermata on the fourth beat of m. 50. Just as the machinery of "Locomotive" ultimately self-destructs, the Baroque-styled predictability of Gothic has "derailed" suddenly, altering the character of the movement. Pann describes the effect of these events leading to m. 47:

> We're coming to the end. We feel it in bar forty-three. We get the rondo theme but it's truncated. And then we get an interruption. This is a huge interruption and it's part of the rude character of this piece.[10]

The coda occurs from mm. 51-63. Material used in the coda returns to the Baroque features found earlier in the movement, including constant sixteenth-note pulse, and moments of bass line with "continuo" texture. Snare drum begins sixteenth-notes alone with the indication of "brushes (on membrane)" at m. 51. The steady pulse is joined in subsequent measures by timpani and piano, who return the pitch center to B minor. The brass and reeds have a series of rising octave and fifth intervals in mm. 53-56, leading the music to a destabilizing, uneven 7/16 bar in m. 58. In a similar manner to earlier transitions, Pann uses

[9] Carter Pann, *Four Factories* (New York: Theodore Presser, 2006).
[10] Pann, interview. See Appendix B, p. 126.

an upward sweep of flutes in m. 59 to reach a pinnacle pitch B. To add emphasis, the composer indicates “capricious” as a score marking.

Pann describes the coda section of “Gothic”:

> And then we have what I consider the coda at fifty-one of this movement. It is a very watered-down version of the rondo theme. You don’t get the ribbons of thirty-second notes heralding this thing. You don’t get the melody. It is deconstructing this movement. All you get is the baroque theme and some sighs from trumpets and saxophones and trombones. Just building up that stone-mason temple just a little more but having this baroque thing go through with timpani. And then a flourish in flutes that gets us way up to the very top of this building.[11]

Triangle and piano maintain rhythmic energy during the final four measures until an explosion of percussion and trombones in m. 63. The established sixteenth-notes in triangle and piano are suddenly interrupted on beat two by bass drum and anvil. Displaced by one sixteenth-note, tenor trombones and bass trombone violently glissando downward at *fff* dynamic from a tri-tone of pitches B-flat, F, and E. Score indications of “Explode!” and “ugly!!” add to the negative characteristics of this terminal moment.

"Gothic" concludes leaving the listener to wonder about its premise and promise. Structural elements of the movement, including a rondo phrase structure and the appearance of *basso continuo*-like texture, are suggestive of a Baroque character. The movement's title suggests influence from the Medieval Gothic architecture style, reflective of stone-mason’s labor and the upward-reach of massive cathedrals. The characteristics found in “Gothic” are similar in character to its predecessor “Limbo”, containing upward sweeps, a graceful two-

[11] Pann, interview. See Appendix B, p. 126.

measure melodic idea, and a brief syncopated romp. However the additional twenty-one measures of contrasting material starting at m. 43 summarily destroy these developments and conclude the movement without answering which premise the composer had in mind.

In a sense, this conflict contributes to the “bad-boy” nature of *Four Factories*. "Gothic" exhibits simplicity in form, but complexity in character and influence. The composer’s comments reinforce this conclusion:

> So, it doesn’t allow you to get comfortable. It allows you to groove. There are some grooves in it and some cool-sounding poppy things and this tune is step-wise, it’s melody. It’s sporadic and melodic at the same time. It’s got as much as you can put inside a theme. There’s a lot in two minutes, forty seconds. A lot of we’re going to start grooving here, but I’m going to be punched and slapped in the face as well. So, this is the “baddest” movement of the whole piece.
>
> Really, it is. Honestly.
>
> It’s so short. It’s like a handshake that doesn’t last.[12]

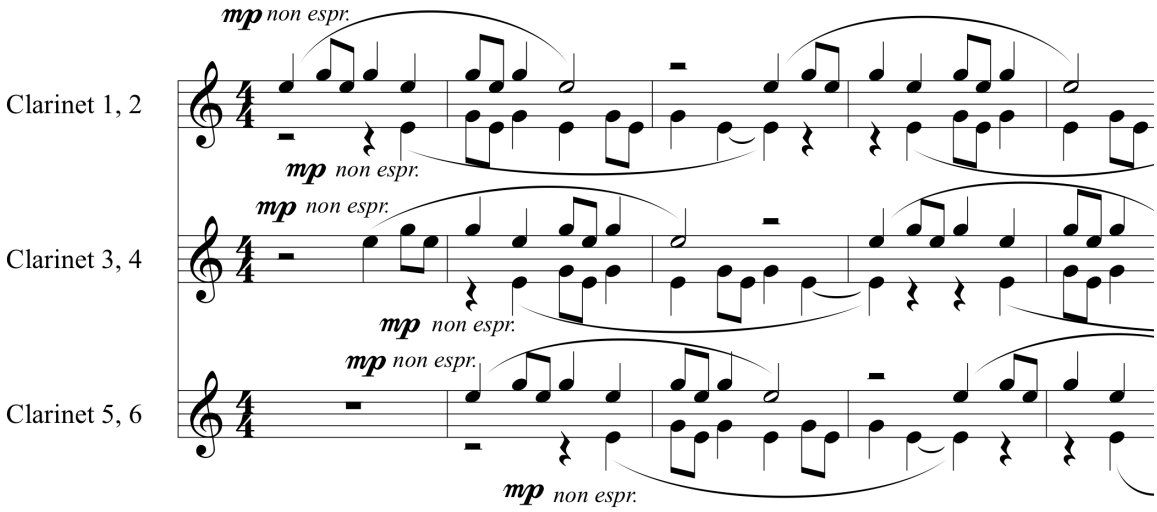
[12] Pann, interview. See Appendix B, p. 127.

CHAPTER 4

MOVEMENT III: "At Peace"

"At Peace" opens as a serene canon in six voices, presented by clarinets. Constructed with alternating minor thirds, and performed one player per part at *mezzo-piano* dynamic, the canon immediately conveys the titular mood.

Example 4.1: Pann *Four Factories*, iii (mm. 1-4) clarinet canon



Pann refers to this canon as an "undulating grid," and a "color palette."[1] The canon serves as a unifying element of the movement and could be analogous to an interwoven design in construction. The composer's choice of "grid" as a description suggests a supportive framework, such as lattice or rebar, and connects "At Peace" to the industrial theme of the broader composition.

[1] Carter Pann, program notes in score *Four Factories* (New York: Presser, 2006), n.p.; Carter Pann, interview by the author, 7 May 2009. See Appendix B, p. 127.

A defining characteristic of this movement is the use of extended harmonies and dramatic harmonic shifts that provide a rich source of color, perhaps a working out of Pann's "color palette." This harmonic focus is immediately apparent in the repeated minor third intervals in the opening canon and suggests a sensitive spirit for the movement, in contrast with the more muscular previous movements. Many of the techniques used in "At Peace," including common-tone harmony, extended chords, and active bass motion are representative of the composer's overall use of harmony in *Four Factories*.

After four measures of canon, brasses and low reeds begin a series of B-flat major and D minor six-four chords, performed at *pianissimo* dynamic. These harmonies, containing two common tones, create a sense of stasis along with the canon. Pann describes the introduction in mm. 5-21 as "a stagnant wall of sound" and "ominous," conflicting descriptions that suggest a dual purpose.[2]

The series of chords in brass and low reeds occurs three times and each is steadily lengthened with the first as three measures (mm. 5-7), the second as five measures (mm. 10-14), and the third as six measures (mm. 16-21). Piano enters at m. 5 to reinforce the clarinet canon under these chords. During the third series of chords, Pann adds a more aggressive bass line and extended harmonies with common tones, including B-flat major, D minor six-four, E-flat major eleven and A-flat dominant thirteen chords. The richness of these harmonies and active bass motion add interest and forward motion to the "wall of

[2] Pann, interview. See Appendix B, p. 128.

sound" near the end of the introductory section. The composer describes his intent during this opening section of the movement:

> [This material] is just a setting up of the tone of the piece. We're doing this with chords that sound very lullaby to me. We're cradling the listener in these harmonies. It's all introduction to A.[3]

Measures 1-24 serve as an introduction and establish the mood, texture, and tonic key of "At Peace." However, this section lacks significant harmonic motion and clearly defined melodic material. During the remainder of the movement, Pann builds harmonic and melodic ideas around the texture established by the opening canon. As outlined in Figure 4.1, the formal structure of "At Peace" resembles a modified sonata form, with sections containing the principal thematic material, harmonic development, contrasting material, retransition, and a presentation of A material in the tonic key.

[3] Pann, interview. See Appendix B, p. 127.

Figure 4.1: Formal Structure of "At Peace"

Section	Measures	Pitch Center
Introduction	1-24	B-flat Major
A	25-37	G Major
A'	38-45	A-flat Major
Transition	46-49	D-flat Major
B	50-58	A-flat Major
Retransition	59-68	to B-flat Major
Introduction	69-82	B-flat Major
A	83-88	B-flat Major
Coda	89-101	B-flat Major

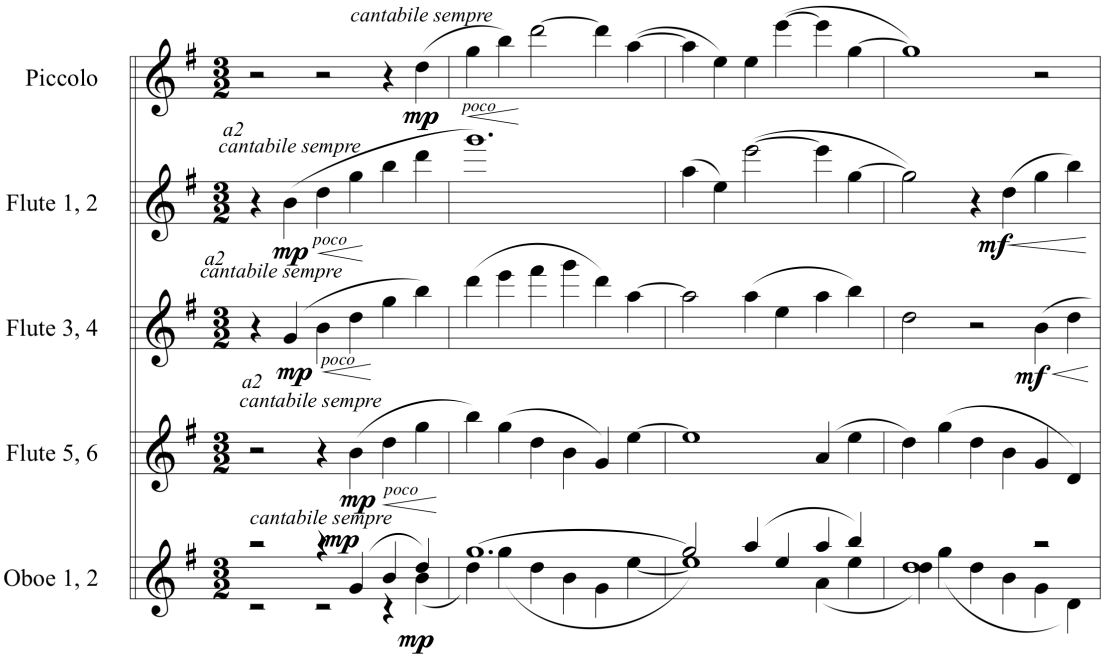
In m. 24, Pann utilizies a D major ninth chord with diminished fifth to create a "crowbar-like" modulation to G major.[4] This "crowbar" serves as an harmonic interruption, taking the key center to the unexpected destination of G major, the parallel major key of the relative minor key of B-flat major. Pann has expressed that for him this distantly related modulation is "like a rising sun. Very evocative of another beam of light that we had no idea would show up."[5]

The A section begins in m. 25 as flowing arpeggiations in G major soar from upper woodwinds with the marking "*cantabile sempre.*" The score indication during the section is "With great beauty…" and the flowing arpeggiations serve

[4] Pann, interview. See Appendix B, p. 128.
[5] Ibid.

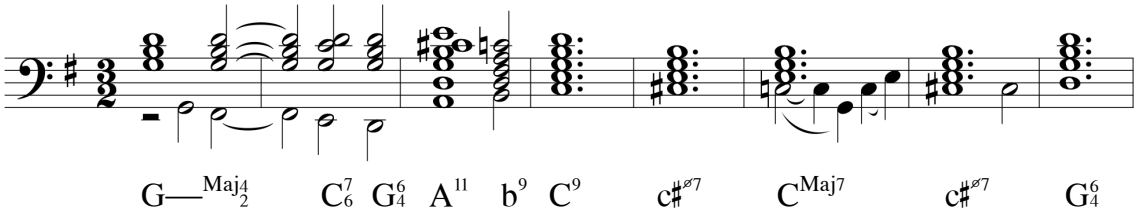
as a flowering of the underlying canon. While this material is not necessarily a theme, it does provide a marked contrast to the canon and the arpeggiations' arch-shape resembles melodic material found in the first movement "Locomotive" (see Example 4.2).

Example 4.2: Pann *Four Factories*, iii (mm. 25-28) flowering arpeggiation



During the A section the canon continues in the clarinets and piano, joined by trumpets, while low brass and low reeds continue extended tertian harmonies. Pann constructs these harmonies with functional bass motion, often related by thirds or fifths. He chooses to build chords with two or more common tones, frequently featuring extended harmonies including seventh, ninth, or eleventh chords. An example of Pann's common-tone harmony is provided in Example 4.3, which presents chords in mm. 25-32.

Example 4.3: Pann *Four Factories*, iii (mm. 25-32) chordal analysis



The A section contains two asymmetrical phrases, the first consisting of seven measures plus a one-measure extension in mm. 25-32. The cadence point occurs with bass note motion from C-sharp to D at the downbeat of m. 32. A dramatic change of orchestration from tutti ensemble to reeds and flutes during the last measures of the phrase reinforces m. 32 as a phrasal extension.

The second phrase in this section, mm. 33-37, is five measures. While texture and melodic shape are similar to the previous measures, Pann modulates from G major to A-flat major during this shorter phrase. G major and C major seventh chords give way to an A-flat nine chord as trumpets interject an eighth-note fanfare at the end of m. 35.

After a descending chromatic motion in the bass line in m. 36, Pann moves through a cadential G major six-four, C major nine, and E-flat dominant four-two chords in m. 37. The E-flat dominant chord with B-flat as the bass pitch allows for a smooth transition to A-flat major at the start of the B section in m. 38, assisted by indications for *rallentando* in m. 37 and *a tempo* with the new key in m. 38.

The A' section is relatively short-lived, and works to develop A section ideas. In the first phrase, consisting of five measures, each of the principal

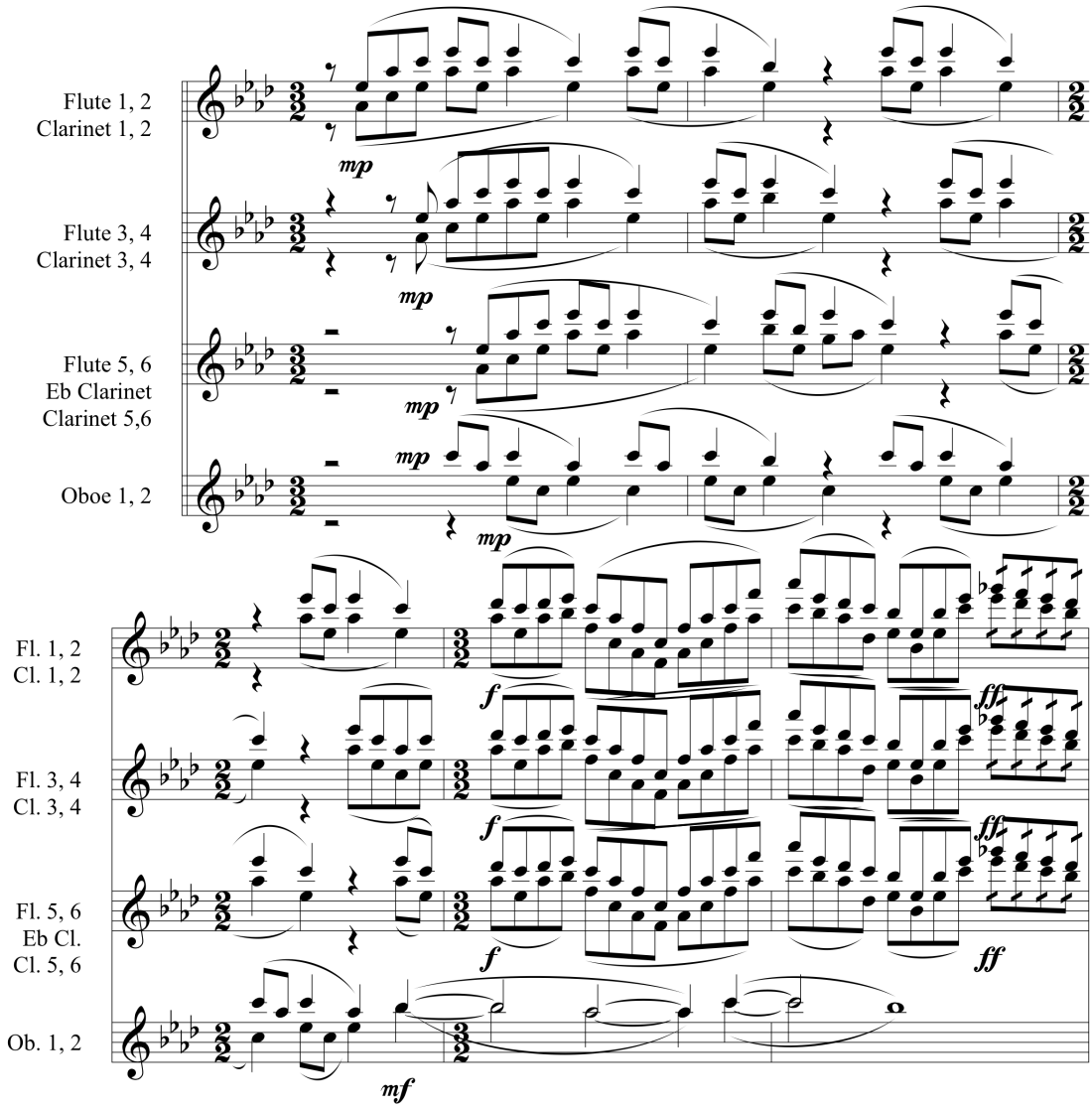
elements from the previous section returns in a more grandiose form. The arch-shaped melodic material, last heard in flutes, oboes, and soprano saxophone, is now presented in piccolo, English horn, bassoon, saxophones, and most brass. Bass line support comes from the powerful combination of bass clarinet, contrabassoon, bass trombone, tuba, and contrabass. The clarinet canon, a unifying feature of the movement, is reinforced with additional instruments (flutes, oboes, clarinets, and piano), and pitches, becoming a dominating presence in mm. 41-42 (see Example 4.4).

Pann describes the canon's maturation during the A' section of "At Peace":

> The canon has actually become something. It's a re-orchestrating of the canon, it's decorative in a different way. And it starts to take a character that it didn't have before at bar 41 and goes all the way through. It becomes almost melodic at bar 41.[6]

[6] Pann, interview. See Appendix B, p. 129.

Example 4.4: Pann *Four Factories*, iii (mm. 38-42) reinforced canon



The second phrase of A' lasts for three measures and consists of clarinets performing a rising A-flat major arpeggio that terminates in m. 45 with two whole-tone chords. This action provides a destabilizing effect, reinforced by a breath mark in m. 45, which leads to the start of transitional material.

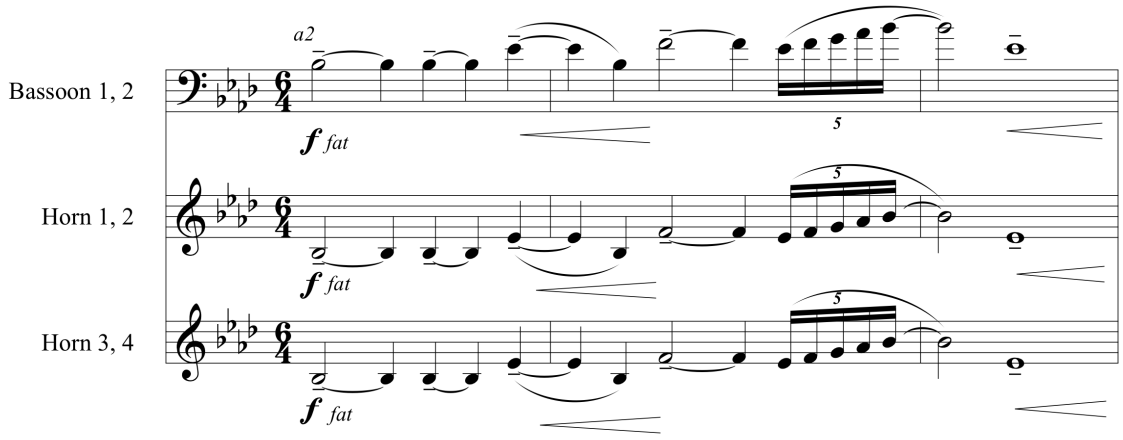
The transitional material in mm. 46-47 which appears in oboe, English horn, and flutes, and is supported by bassoons, triangle, and vibraphone, uses

an eighth-note texture reminiscent of the canon. Rhythmic energy dissipates as Pann reduces the tempo to quarter-note equals 120 and employs the score indication "Relaxed, shaped…"[7] Cool ninth chords and an F-flat augmented seventh chord in mm. 48-49 further prepare the listener for arrival of the B section in m. 50.

The B section delivers contrasting melodic and rhythmic elements, while maintaining unity through continued use of extended tertian harmony. Pann suggests that this section is "a non-traditional way to develop a theme [by] presenting a contrasting moment."[8] After a brief *rallentando* in m. 49, a "heroic" theme is presented by horns and bassoons at quarter-note equals 144 with the score indications "soaring" and "fat."[9] The "heroic" theme serves as an antithesis to the canon that has dominated the "At Peace" and accomplishes the "contrasting moment" suggested by Pann. This new material is a linear construction of rising fourth and fifth intervals, followed by a descending fourth. These consonant intervals, noticeably larger than the minor thirds of the canon, contribute to the valiant sound of the figure (see Example 4.5).

[7] Carter Pann, *Four Factories* (New York: Theodore Presser, 2006).
[8] Pann, interview. See Appendix B, p. 100.
[9] Pann, *Four Factories*.

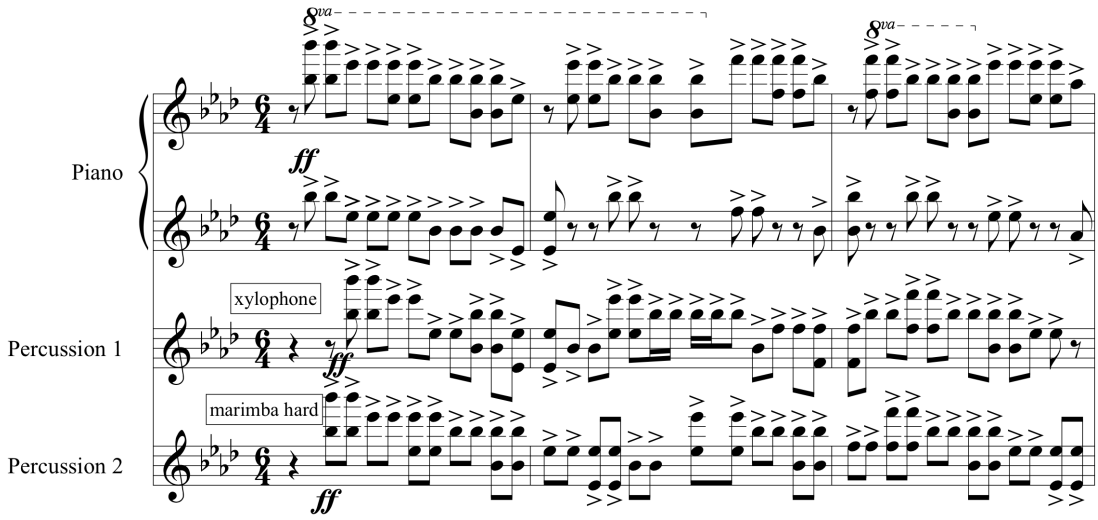
Example 4.5: Pann *Four Factories*, iii (mm. 50-52) "heroic theme"



Accompanimental figures built with intervals of fourths and fifths feature the double-strike technique that Pann also used in the second movement. Flutes, piano, xylophone, and marimba perform the technique in mm. 50-54 that the composer describes as "bullet shots, or hammering."[10] The "bullet shots" create a percussive effect that provides rhythmic energy and determination to the "heroic theme." Pann states that this effect requires the pianist to think of himself as a member of the percussion section (See Example 4.6).[11]

[10] Pann, interview. See Appendix B, p. 130.
[11] Ibid., 129.

Example 4.6: Pann *Four Factories*, iii (mm. 50-52) “bullet shots”



Measures 57-58 serve as an extension to the “heroic theme” and push the B section, and the movement, to its climax. Pann creates a shimmering effect with staggered entrances of flute, oboe, and clarinet trills over powerful *fortissimo* and *fortississimo* descending quarter-note and eighth-note figures in low reeds and brass. Rolls in suspended cymbal and snare drum further the intensity into m. 59, building into an anvil strike and *ffff* quartal tone-cluster in low reeds and brasses. In the aftermath of this intense end to the “heroic theme” Pann leaves the listener with three measures filled with only shimmering flute trills.

Measure 62 suggests a restart to the movement. The opening canon returns in the same orchestration as the beginning, however this time with a major third interval created by pitches B-flat and D-flat. Added pitches F, A, C-flat, E-flat, and G-flat frequent the near *tutti* orchestration in mm. 64-68, with C-flat as the bass pitch. This brooding F dominant chord with flat five and nine then effectively resolves to a B-flat major root position triad in m. 69.

Pann describes the impact of his chord choice in mm. 62-69:

> [I]t's a big, big push, with a tri-tone substitution in the harmony. It's an F dominant harmony but with a tri-tone substitution of a C-flat in the bass. Very great technique used in jazz to get to B-flat major here. This is like a sunrise or the world has opened up. When I hear letter D, it's like my ears have popped. I get this beautiful B-flat sound.[12]

Out of the "sunrise" return to the home-key of B-flat major comes an abbreviated presentation of the clarinet canon, joined by flutes in m. 71. After four measures of established canon, brasses and low reeds again begin their series of B-flat major and D minor six-four chords at *pianissimo* dynamic. This material occurs for 10 measures, roughly half of the original presentation of 19 measures, before m. 83 brings a return of the B section's soaring arpeggiations. In this iteration of B material, double-strike arpeggio patterns are added in marimba and vibraphone, with the score indication "make sure this is prominent, not covered up."[13] Use of this technique reinforces the canon, furthering its persistent drive and suggesting that the movement is nearing completion.

Pann takes the canon, grand arpeggiations, and "hammering" effects to the breaking point in m. 88. A sudden *accelerando molto*, described by Pann as a "bel accelerando," paired with a *crescendo* to *fortissimo* with the *tutti* ensemble, serves as an interruption to the ultimate statement of the movement's source material.[14] The composer relates this transitional moment to a mechanical

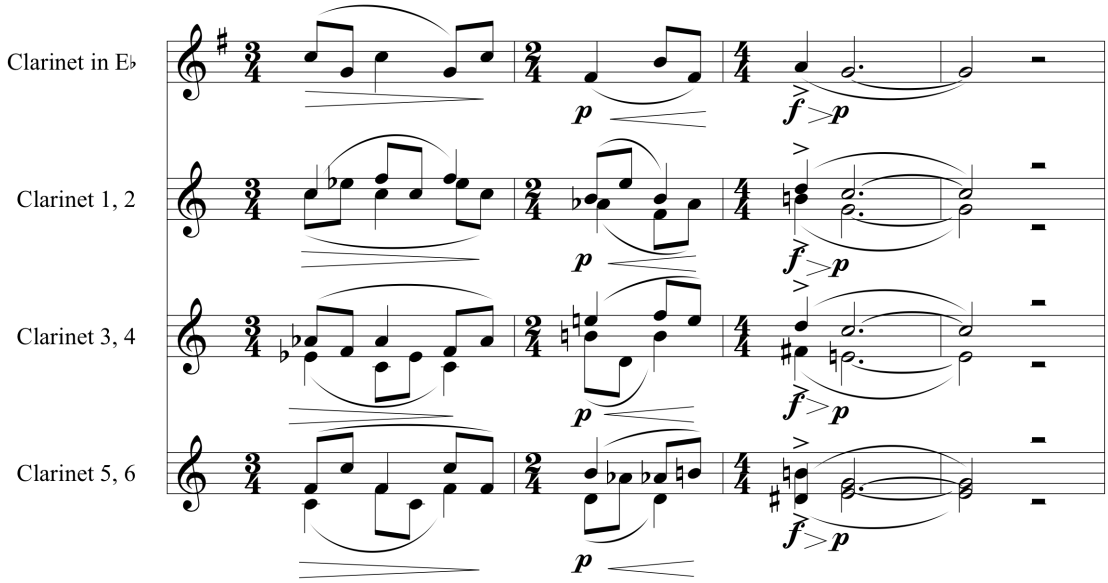
[12] Pann, interview. See Appendix B, p. 130.
[13] Pann, *Four Factories*.
[14] Ibid.

breakdown: “It’s like a machine that a spring broke and it’s still pretty but it’s a little quirky now. Something’s a little off.”[15]

With “At Peace” breaking a “spring” in m. 88, a dramatic reduction in orchestration occurs, leaving seven clarinets alone to perform what remains of the canon. For seven measures, overlapping eighth-notes and quarter-notes wind down from *fortissimo* dynamic to *piano*. Pann has described this clarinet gesture as “heralding,” perhaps due to the large leaps of sixths, sevenths, and octaves incorporated here.[16] An awkward quality is projected from these measures, as clarinets one, two, three, and four repeatedly move across the break. Furthermore, meter changes to six-four, four-four, three-four, and two-four contribute to this uneasy feeling, described by Pann as being “a little off.” Example 4.7 shows the last three measures of “heralding clarinets” as they wind down from the last presentation of the canon.

[15] Pann, interview. See Appendix B, p. 131.
[16] Pann, program notes in score *Four Factories*, n.p.

Example 4.7: Pann *Four Factories*, iii (mm. 94-96) end of "heralding clarinets"



At key moments in the previous movements, Pann utilizes bass trombone and other low brass or low reeds as a terminal force, ushering the conclusion or destruction of an idea. In "Locomotive," trombone and bass trombone glissandi are responsible for destroying momentum in the start-up figures. Likewise, in "Gothic" a trombone and bass trombone glissando rips the movement to sudden conclusion.

As the clarinets of "At Peace" resolve their canonic activity in m. 96, a sudden expansion of forces including woodwinds, brass, and bass drum results in a dramatic visual effect in the printed score. Descending quarter-notes are added in the trombones, bass trombone, tuba, as well as bassoons and contrabassoon. These descending pitches lead to the final cadence point, where Pann creates an F-dominant harmony with D as the bass pitch before resolving to a root-position B-flat major chord. While comparing the effect of this

progression with the modulation from m. 68, the composer describes the inspiration for his conclusion:

> Instead of V-I or instead of the tri-tone substitution, which would be C-flat to B-flat, I do a different technique which is to have the dominant of B-flat, so F dominant, without the fifth, with no C. And the third scale degree in the bass, D below F, A, E-flat, F. That is a Stravinsky harmony. If you put harmonies like that together you start to channel Stravinsky for the dominants. And there's no third in [the final] chord, it's just a tonic and a fifth. I don't need to hear the third, not really interested in giving you that much.[17]

Pann's choice of ending seems to provide him with personal satisfaction. The term "color palette" used to describe "At Peace" suggests an emphasis on harmonic color in the movement. This emphasis is worked out through the mechanical framework of a clarinet canon and series of rich extended-chord harmonies. Development of material from the A section occurs through modulation, expansion of arpeggiated figures, and incorporation of a brief contrasting theme, each placing emphasis on pitch-center and common-tone harmony. These characteristics simultaneously connect the movement to other programmatic ideas in *Four Factories* while maintaining a close, or personal, character suggestive of the title "At Peace." After presenting an abundance of stacked third intervals throughout the movement, Pann's decision to leave out the third of the final chord is noticeable and serves as a nod to the presence of a final movement. Emptiness created by this decision leaves open the possibility of closure in *Four Factories*.

[17] Pann, interview. See Appendix B, p. 131.

CHAPTER 5

MOVEMENT IV: "Mercurial, *with great precision*"

The fourth movement of *Four Factories* presents a fast-paced, frenetic machine that capitalizes on Pann's compositional "muscle" and pushes his factory to its limit one last time.[1] Similarities exist with the first movement "Locomotive," including binary form, an energetic mechanical premise, and use of *Four Factories'* opening material as the conclusion of the work.

The final movement is somewhat more compressed than "Locomotive," however, and presents motives and gestures in rapid succession or simultaneously. Key areas are highly fluid, frequently serving to support specific motives or compositional devices, a quality that undergirds the movement's title. Orchestrational characteristics are varied and change frequently, projecting volatility. Pann employs two codas, the first serving as a culmination of material from "Mercurial" and the second as a conclusion to *Four Factories*. Formal structure, section length, and tonal centers of "Mercurial" are shown in Figure 5.1.

Figure 5.1: Formal structure of "Mercurial"

Section	A	B	A'	B'	Coda I	Coda II
Measures	1-60	61-94	95-130	131-146	147-189	190-219
Pitch Center	B minor/ unstable	D Major	E-flat Major/ unstable	unstable/ E-flat Major	E-flat Major to D Major	G tone cluster

[1] Carter Pann, interview by the author, 7 May 2009. See Appendix B, p. 133.

The *Merriam-Webster Online Dictionary* defines mercurial as "characterized by rapid and unpredictable changeablenss of mood."[2] When asked why he chose the title "Mercurial", Pann gave this description of the movement's nature:

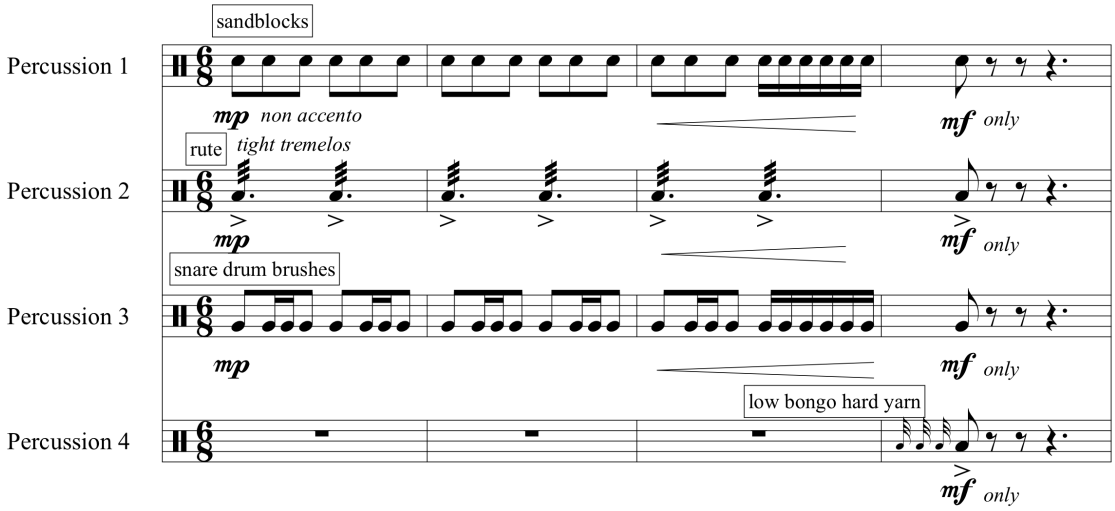
> Well, because there are a lot of different characters in this movement. It's very mercurial and moving around…. It's because there are several different objects in this piece that get treated and sometimes thrown into each other, and thrown against each other.[3]

The remainder of the title "with great precision" is suggestive of great technical demands placed on the performers and the facility required for the movement's performance.[4] These demands become immediately apparent as "Mercurial" opens with a rush of eighth-notes and sixteenth-notes in 6/8 meter played by sandblocks, rute sticks, and snare drum with brushes. Three measures of this percussion device alone, described by Pann as a "tattoo," begin the A section (see Example 5.1).[5] This material jump-starts a streamlined series of start-up figures at a tempo of dotted-quarter-note equals 160, and the "tattoo" allows for a demonstration of technical proficiency in percussion at the outset of the movement.

---

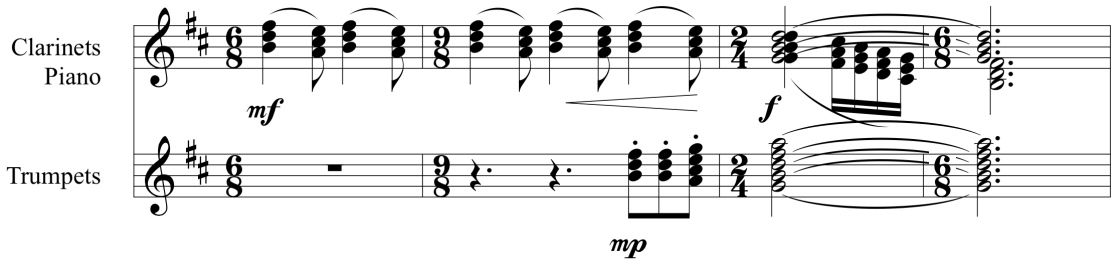
[2] "Mercurial." In *Merriam-Webster Online Dictionary*, http://www.merriam-webster.com/dictionary/mercurial (accessed July 15, 2010).
[3] Pann, interview. See Appendix B, p. 132.
[4] Carter Pann, program notes in score *Four Factories* (New York: Presser, 2006), n.p.
[5] Pann, interview. See Appendix B, p. 132.

Example 5.1: Pann *Four Factories*, iv (mm. 1-4) percussion "tattoo"



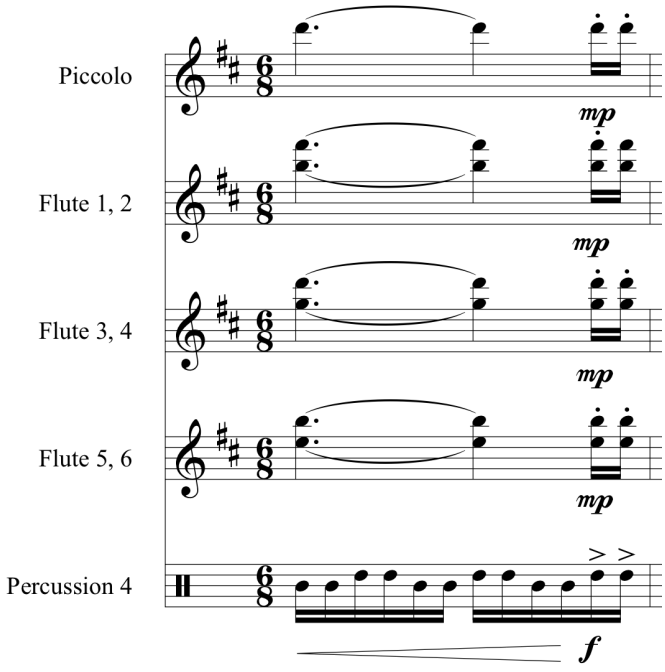
The initial start-up material, constructed on the energy created by the percussion "tattoo," is presented in triple meter as a series of B minor and A major triads in alternating quarter and eighth-note rhythms. This material lacks the arch shape of previous melodies and provides straight-line energy to begin the fourth movement. A 2/4 bar is interjected at m. 6, containing a group of sixteenth-notes, whose comparative brevity furthers the rhythmic energy of this start-up attempt (see Example 5.2).

Example 5.2: Pann *Four Factories*, iv (mm. 4-7) "Mercurial" start-up material



By m. 8 piccolo, flutes, oboe, English horn, clarinets, and trumpets settle onto a G major ninth chord, while log drum played with "hard yarn" mallets maintains momentum with an alternating sixteenth-note pattern.[6] This attempted start is capped with a two sixteenth-note exclamation point at the end of m. 11 (See Example 5.3).

Example 5.3: Pann *Four Factories*, iv (m. 11) piccolo, flutes, and log drum

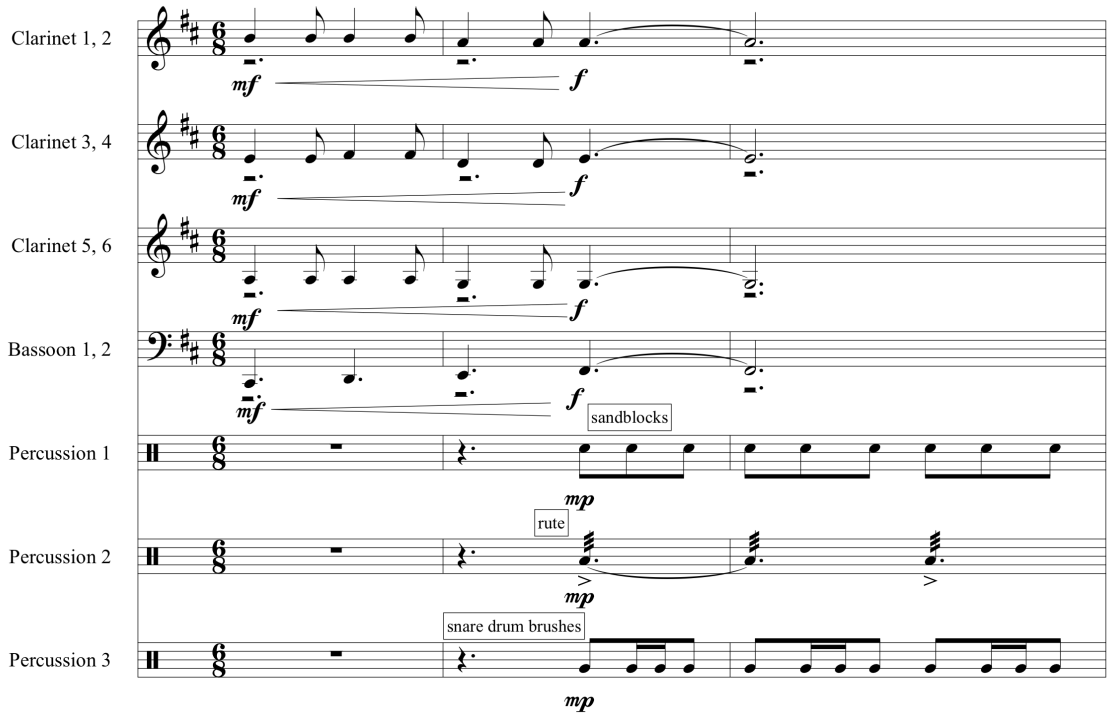


[6] Carter Pann, *Four Factories* (New York: Theodore Presser, 2006).

While the first start-up figure lasts for eleven measures, the second, in mm. 12-27, stretches to fifteen measures. The percussion “tattoo” now lasts for four measures, before giving way to alternating C major seven and B minor four-two chords. Two 2/4 measures interject in mm. 19-20, containing an outwardly expanding rush of sixteenth-notes in clarinets. Upper woodwinds, including soprano saxophone and alto saxophone, join trumpets in m. 23 with a C major ninth chord. Log drum sixteenth-notes once again support the extended harmony and lead to another sixteenth-note exclamation at the last moment of m. 27.

Contrast created by three beats of silence in m. 28 provides additional weight to the second start-up attempt and creates anticipation of an imminent change of direction. Change arrives in m. 29 as the more organized and melodic third start-up features development of alternating pitches through elaboration and a segment of canonic activity. In this final start-up the percussion “tattoo” entry is delayed until three beats after winds and piano begin, creating further momentum (see Example 5.4).

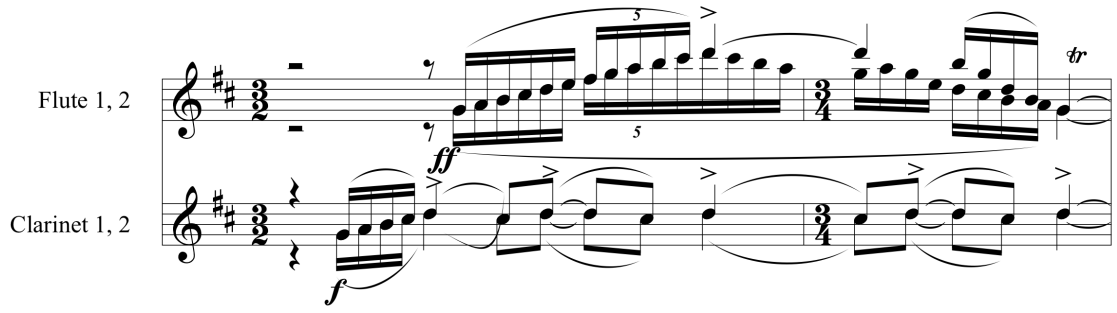
Example 5.4: Pann *Four Factories*, iv (mm. 29-31) "Mercurial" third start-up figure



In a pattern similar to the A section of "Locomotive," Pann's expansion of the third start-up suggests that this machine will soon be up and running. In mm. 40-53, the composer elaborates on the pitch alternation of these start-ups. Beginning at m. 40, clarinets rush upward through sixteenth-note sweeps into repeating series of alternating triads. In mm. 40-41 the alternation occurs between G major and C-sharp minor triads in root position and in mm. 42-43 in first inversion. Flutes join these figures with "rapid" G major scales that extend the clarinet sweep upward, creating further intensity and forward motion.[7] Example 5.5 shows the elaboration of start-up material in clarinet 1 and clarinet 2 and the associated G major scales found in flute 1 and flute 2.

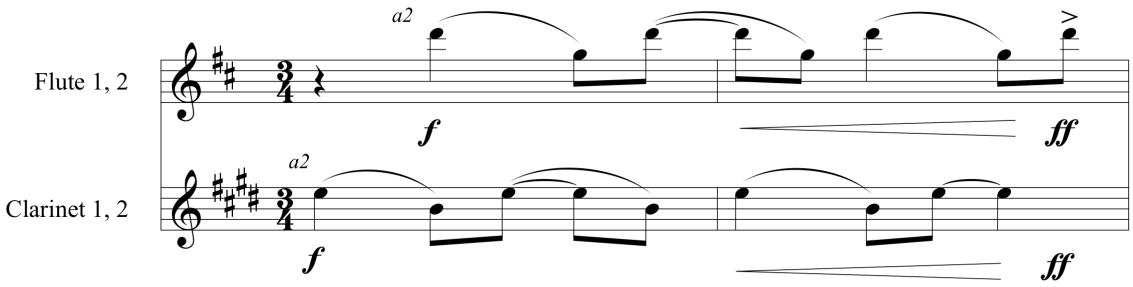
[7] Pann, *Four Factories*.

Example 5.5: Pann *Four Factories*, iv (mm. 40-41) expansion of third start-up



A brief canon reminiscent of material from “At Peace” is created at m. 49 as clarinets precede piccolo, flutes, and oboes by one beat in the alternation of triads (see Example 5.6). These triads now feature an expanded range including D minor and G minor in mm. 49-50 before rising to E minor and A major in mm. 52-53. The dynamic level steadily increases from *forte* to *fortississimo* in mm. 49-52 as the third start-up attempt grows into an unstoppable force.

Example 5.6: Pann *Four Factories*, iv (mm. 49-50) brief canon



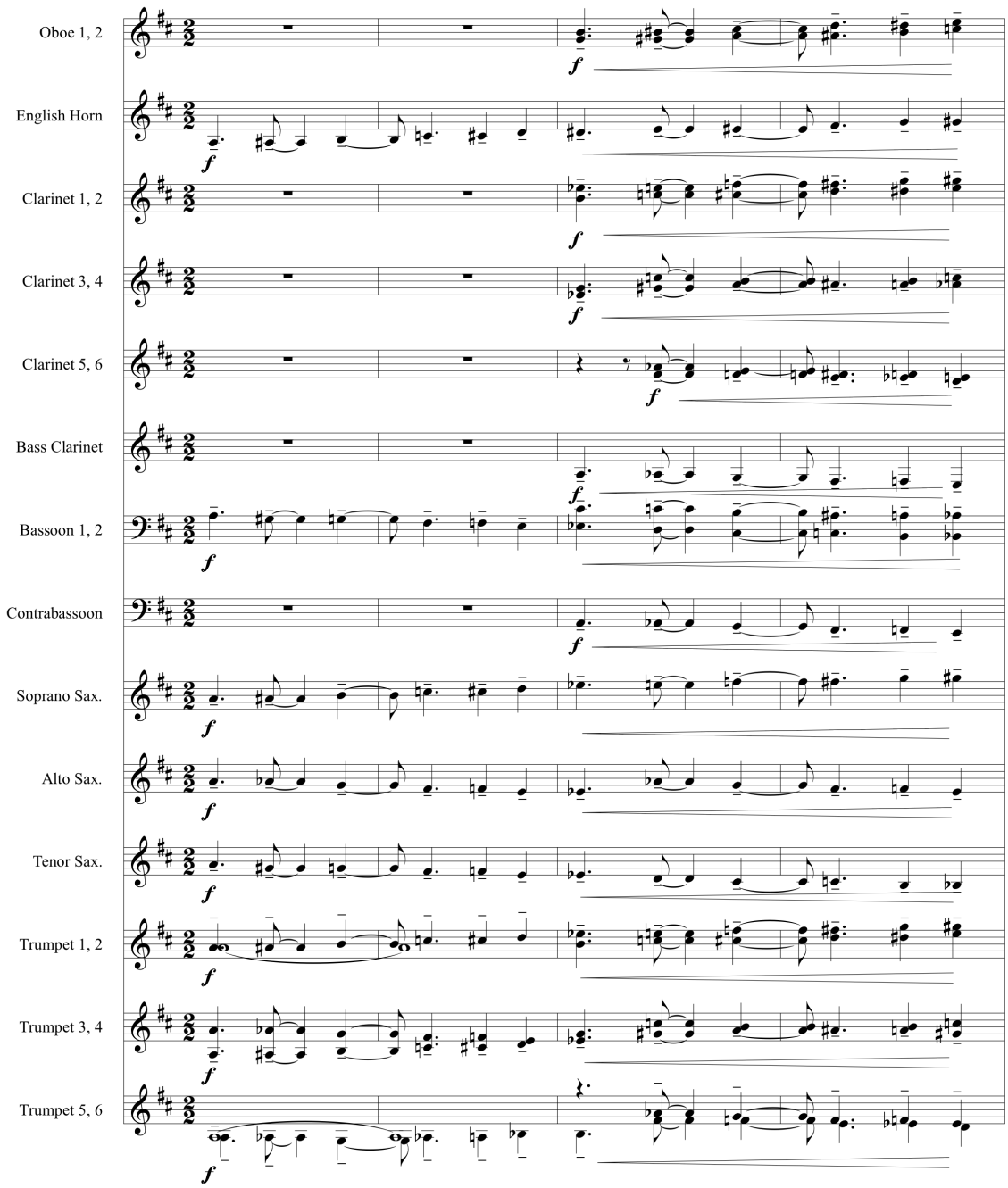
The frenzy of activity that characterizes the A section of “Mercurial” is described by Pann as an intentional phenomenon:

> This is all fantasy. At this point this is less formal and more fantastic. I have no idea where it is going. In fact that's how it was being composed. I didn't know what I was going to do with this material, quite honestly. Through this weird little canonic stuff here.[8]

Measures 53-60 present material that is strikingly similar to the generator motive and its aftermath in "Locomotive." English horn, bassoons, and trumpets begin a syncopated figure constructed with overlapping chromatic lines, which is joined in m. 56 by oboes, clarinets, and contrabassoon. Rhythmic support from two snare drums played with brushes is provided in the form of eighth-notes and later sixteenth-notes, as an *accelerando* indication and crescendo to *fortissimo* bring this syncopated generator motive to the fore. Figure 5.7 shows the "Mercurial" generator motive growing in orchestrational density, dynamic level, and rhythmic intensity.

[8] Pann, interview. See Appendix B, p. 132.

Example 5.7: Pann *Four Factories*, iv (mm. 54-57) “Mercurial” generator motive



To cap the A section, Pann returns to Corigliano “flurries” in the form of overlapping, descending chromatic sixteenth-notes in all six flute parts during mm. 58-59. Similar material appeared near the end of the A section in

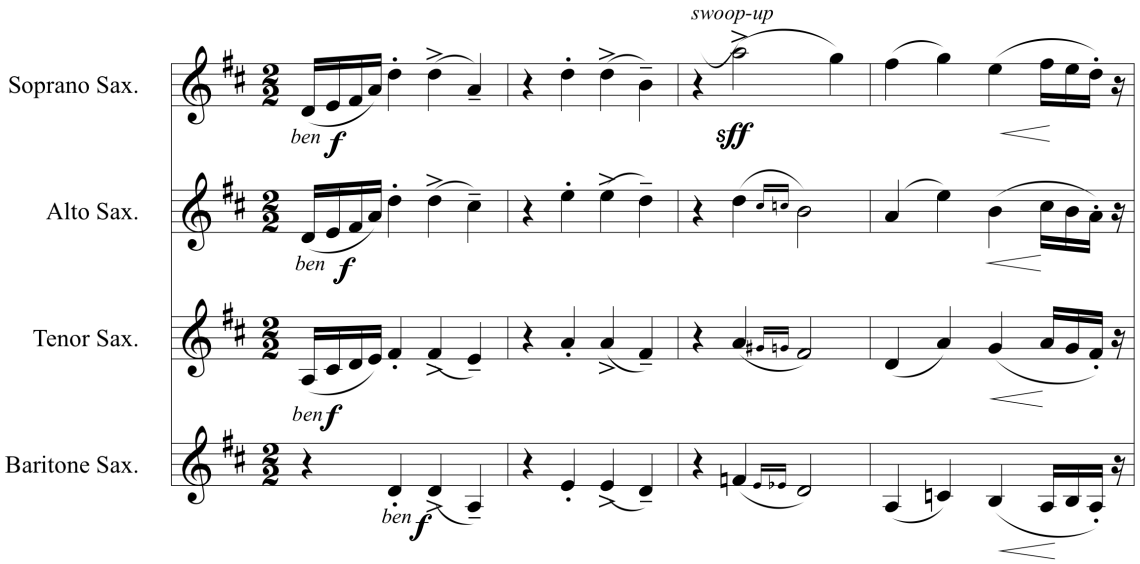
"Locomotive," and once again the "flurries" provide increased rhythmic activity and a rising pitch level. In contrast to the chromatic generator motive, harmonic supply in mm. 58-59 is created by whole-tone clusters, including a rousing sixteenth-note whole-tone scale in horns at the conclusion of m. 59. This marked contrast serves as a signal that the final A section start-up has concluded and is developing into another fully functional machine.

In place of the minimalist-inspired clarinet ostinato found in "Locomotive," Pann now turns to a farcical D major romp. Trombones, euphoniums, tubas, and contrabass storm in with this romp as the B section begins in m. 61. What Pann refers to as a "big motor band" kicks off with alternating eighth-notes in 2/2 meter at *fortissimo* dynamic level.[9] Euphoniums, tubas, and contrabass play on beats one and three with the score indication "heavy accents, moving," while trombones play on beats two and four with the score indication "edged."[10] Tambourine thumb rolls and anvil strikes add further weight to this intense march-like oom-pah.

In m. 65, the saxophone quartet and piano enter with new thematic material, a heralding line evocative of the arch-shaped melodic material found in "Locomotive" and A-section melodic material from "Gothic." Example 5.8 illustrates the saxophone quartet "big motor" theme, with sweeping gestures, rests, and slurs providing emphasis to beats two and four.

[9] Pann, interview. See Appendix B, p. 133.
[10] Pann, *Four Factories*.

Example 5.8: Pann *Four Factories*, iv (mm. 65-68) “big motor” theme



Measures 69-81 contain the type of frequent orchestrational changes that are characteristic of “Mercurial.” The second four-measure phrase reinforces the “big motor” theme with increased forces including English horn, clarinets, bassoons, and trombones. Piccolo, flutes, and clarinet 1, 3, and 5 are offset by one beat to create another brief canonic effect while sandblocks, vibraphone, and snare drum played with brushes enter as reinforcement. This phrase is extended one measure by rising eighth-note triplets in piccolo and flutes in m. 73. Trumpets enter in m. 74, and along with horns and tenor saxophone carry the “big motor” theme as low brass continue their oom-pah pattern. Upper woodwinds rejoin the forces at *fff* dynamic during mm. 78-80, and the theme now becomes rhythmically distorted before giving way to another series of rising eighth-note triplets in trumpets and horns.

Eighth-note and quarter-note triplets in trumpets and trombones, along with horn trills and soaring euphoniums in mm. 82-94, create an interruption to

the momentum of the B section. Sustained pitches in low reeds, trombones, and tuba create an E-flat major four-two chord at *fff* dynamic, a clear break from the previous material in D major. Horns join euphoniums and snare drum with a sixteenth-note punctuation before a *rallentando* and *decrescendo* bring the section to a soft conclusion with a gentle *fermata* in m. 94. Pann describes the grandiose nature of his transition, comparing its dramatic effect to Gustav Mahler's large-scale orchestration and expression of optimism in his *Symphony No. 8:*

> Then all of a sudden we come to Mahler Eight at letter C. This is an interruption. C is an interruption. It's not the big sweeping theme. I call it heroic but that's just a localized way to describe it.
>
> This is an interruption. It serves as a transition. With these lip trills. These trills just don't happen on the horn, you have to make it happen. All this stuff, very Mahlerian scoring.[11]

"Mercurial" is not calm for long, however, as A' begins in m. 95 and presents 30 measures of intensified start-up material with the score indication "Capricious."[12] The composer refers to this development of A material as "more exciting" and "decorated."[13] In this section, the first two start-ups last for 15 measures each and settle onto major four-two chords, before a dramatically shortened third start-up attempt concludes A'.

In m. 95 the triple-meter percussion "tattoo" is back for one measure before the alternating triadic start-up figures return in flutes 3-6 and clarinets 3-6. Piccolo, flutes 1-2, oboes, and upper clarinets provide decorative scalar material

---

[11] Pann, interview. See Appendix B, p. 133.
[12] Pann, *Four Factories.*
[13] Pann, interview. See Appendix B, p. 133.

and a dramatic upward sweep in m. 98, leading to a staccato descending eighth-note answer by bassoons, English horn and oboe. Log drum enters during the final measures of the figure before two sixteenth-notes in piccolo, flutes, and trumpets punctuate the end of m. 109.

Three measures of percussion "tattoo" begin the second start-up, compressing the winds into twelve measures. A triangle roll in mm. 119-124 supports increased rhythmic activity in bassoons, trumpets, horns, as well as the log drum entrance. This energy settles onto a B major four-two chord before terminating with another double-sixteenth-note exclamation in m. 124.

Two beats of silence follow in m. 125 before flutes and oboes break the pause early by intruding with a pick-up to the final "Mercurial" start-up. Previously comprising ten measures during the A section, the more melodic third start-up is now condensed to four measures in A'. This truncated version omits the "tattoo", instead immediately presenting melodic material in clarinets, saxophones, trumpets and piano with arpeggiated "decoration" from upper woodwinds and harmonic support from low reeds and low brass.

In m. 130, Pann interjects the score indication "Muscular suddenly" and returns to 6/8 meter, abruptly ending the third start-up figure and entering into a brief transition built with increased rhythmic activity in horns, trumpets, trombones, and euphoniums. Staggered entrances in these instruments and upper woodwinds provide a heralding effect and appear along with a return of B section material, as described by the composer:

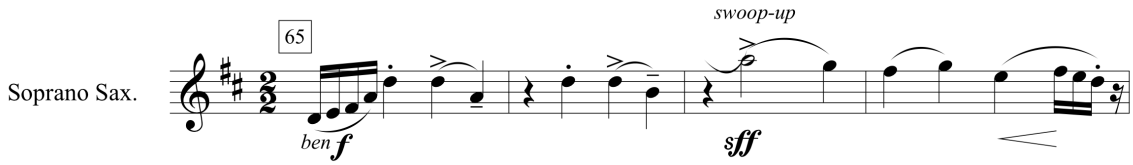
> So, 130 begins [a] variation on the melody of B. Now I'm squeezing things together. They get so squeezed that all of a sudden they're right on top of

each other. That's what you're going to see at F. This is me flexing my orchestration muscles at that point. At "Muscular suddenly" it sounds muscular because I've got F major over a low E bass. How pretty is that?[14]

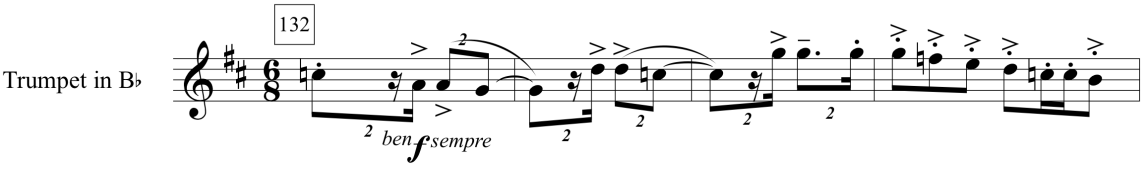
During mm. 130-145, the "big motor" theme reappears, however the upward sweep is now reduced to one sixteenth-note and Pann notates the figure as duplets, providing contrast with the underlying triple meter. Example 5.9 presents the "big motor" theme in both its original form and as it appears during the B' section.

Example 5.9: Pann *Four Factories*, iv thematic comparison

a. 65-68



b. 132-135



The "big motor" theme initially appeared in oboes, trumpets 1-4, and piano. However, in m. 140 the theme's orchestration is larger, including piccolo, flutes, oboes, English horn, clarinets, soprano saxophone, alto saxophone, and tenor saxophone. Energetic rhythms continue in brasses and a sustained bass

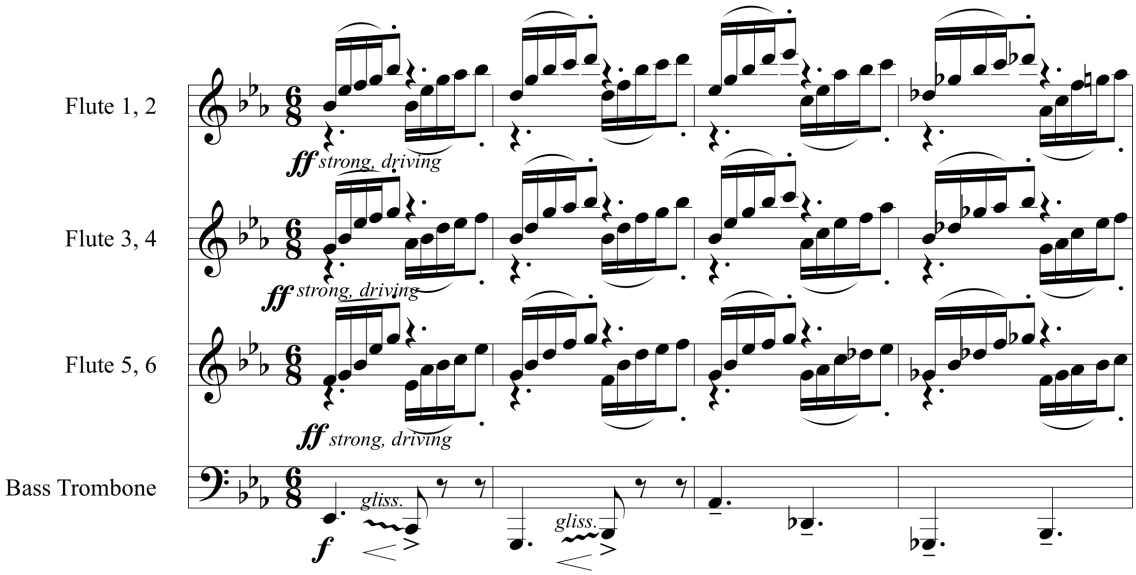
[14] Pann, interview. See Appendix B, p. 133.

pitch of F-flat supports the combined forces in a whole-tone cluster of F-flat, F-sharp, A-flat, B-flat, D-flat, and E-flat. The section ends with Pann's signature double-tap sixteenth-note exclamation at the conclusion of m. 145.

After a dramatic silence created by a whole-rest under a *fermata* with score indication "(short)," "Mercurial" enters into a raucous coda at m. 147. This is the first of two codas in the final movement and it serves as a culmination of material from "Mercurial." Coda I, marked *"Scherzo Brilliante"*, breaks out with an active bass-line featuring *glissandos* in bass trombone and "strong, driving" vertical sweeps in flutes and clarinets.[15] A whimsical, circus-like atmosphere fitting of a scherzo is projected in these first measures in the key of E-flat major. Pann describes his choice of tonal center as a "logistical choice" while seeking an "easy band key" for this section of the movement.[16] Example 5.9 shows the bass trombone bass-line and upward sweeps in flutes that contribute to the coda's circus-like atmosphere. These sweeps are similar to others found in mm. 40-43 and m. 65 of "Mercurial" and serve as a unifying feature of *Four Factories.*

[15] Pann, *Four Factories.*
[16] Pann, interview. See Appendix B, p. 133.

Example 5.10: Pann *Four Factories*, iv (mm. 147-150) glissando bass-line and sweeps

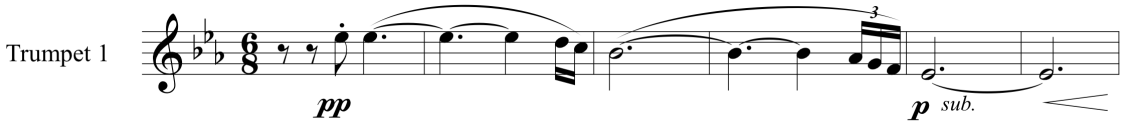


Four measures of this raucous pattern serve as introduction to a new theme that Pann calls the "scherzo-coda melody." This material enters in m. 151 as a six-measure phrase presented in piccolo, oboes, English horn, E-flat clarinet, and trumpet 1, trumpet 3, and trumpet 5. Entering as an eighth-note E-flat followed by sustained E-flat, the "scherzo-coda melody" drops by scale degree to a sustained B-flat, before descending the remainder of the octave (See Example 5.11).

Pann's description of this melody conveys its rhythmic conflict with the prevailing triple meter and the composer's desire for a new idea in the first Coda: "This melody is not found anywhere in the piece. It's a duple feel that is just breaking out. This is the scherzo-coda melody. Something new had to

happen."[17] While this material fulfills Pann's desire for a coda theme not previously heard, emphasis on intervals of a descending fourth and octave found in the "scherzo-coda melody" give it a resemblance to the "big motor" theme in mm. 65-68. This relationship furthers a feeling of closure in the Coda I material.

Example 5.11: Pann *Four Factories*, iv (mm. 151-156) "scherzo-coda melody"



In mm. 157-161 the circus-like introductory gestures return, retaining the bass trombone bass-line but with the upward sweeps reduced to clarinets alone. In m. 161 an abbreviated version of the "scherzo-coda melody" is presented, lasting just three measures in piccolo, flute 1, oboes, and English horn. Descending, accented eighth-notes and sixteenth-notes at *fff* dynamic in upper woodwinds, trumpets, and xylophone violently force the action downward in m. 164.

As in previous movements, Pann now turns to low reeds and low brass as he approaches culmination. In m. 165 bass clarinet, contrabassoon, baritone saxophone, bass trombone, tuba, and piano begin a return of the finale's start-up material in augmentation. Over this underlying material in 9/8, Pann presents a bevy of arpeggiated and straight-line rhythmic activity in reeds, trumpets, and horns.

[17] Pann, interview. See Appendix B, p. 134.

A sudden shift to D major in m. 169 brings a return of the "scherzo-coda melody" in 6/8 meter for five measures before it is once again interrupted by accented eighth-notes and sixteenth-notes at *fff* dynamic. Next, Pann returns to 9/8 and begins an intense series of three-measure bursts of "scherzo-coda melody" each followed by a "turnaround" 3/8 measure.[18] Orchestrational density and rhythmic activity increase from m. 179, and by mm. 187-188 the pianist is assigned to play "large tam-tam" and the largest trombone *glissandi* of the work occur as Pann brings the Coda I to its zenith.

The composer reveals vivid imagery in his description of the repetition and increased energy in these final measures of Coda I:

> You can tell we're coming to the end of this whole piece. When you start to repeat stuff that much, there's a reason. It's different than we've heard before, just keeps repeating this stuff. We have a sling-shot…. I'm just pulling the rubber-band as tight as I can.[19]

The movement's "rubber-band" breaks in m. 189 as the *tutti* ensemble is reduced to a timpani roll indicated for six beats with the time signature 18/8. This gesture instantly wipes away the momentum of Coda I and prepares the listener for a new picture, as if "shak[ing] up the Etch-A-Sketch."[20]

Having completed "Mercurial" by combining elements of the movement's A and B sections with new material in Coda I, Pann is now obligated to provide grand closure for *Four Factories*. Faced with having begun a massive generator

[18] Pann, interview. See Appendix B, p. 135.
[19] Ibid., p. 134.
[20] Ibid.

in the first movement “Locomotive,” the composer opts to complete the engine’s lifecycle by repeating the opening measures of the first movement:

> And this is completely unexpected at H, which is the opening of the first movement of the piece. This was the best idea I could come up with for this movement, to put the very opening of the first movement at the end of this piece. I wasn’t going to do that. I remember making this decision to spend all the time it would take.[21]

A nearly exact copy of the first two measures of “Locomotive” appears in mm. 190-191 of “Mercurial,” beginning Coda II with a familiar gesture. The opening fanfare figure returns, presenting rising major seventh intervals throughout the ensemble, while three of the woodblocks parts enter in the second measure, once again supporting the engine with layers of polyrthythms. Subsequent measures contain overlapping eighth-note triplet figures in E-flat clarinet and saxophones, supplemented by energy from upper woodwinds performing alternating static sixteenth-notes on successive beats.

Pann does not kill off this final start-up quickly. A secundal tone cluster constructed over a bass pitch of D remains for 26 measures and becomes a dying moan as dynamic undulations of instrumental color are added from m. 193. Reeds, timpani, and suspended cymbal alternate swells with brasses in increasing frequency as the generator enters its final death throws. Orchestration begins to diminish in m. 210 and cessation of rhythmic activity in the winds occurs in m. 214. The composer describes this extended look at *Four*

[21] Pann, interview. See Appendix B, p. 134.

Factories' opening material as an opportunity "to see what it sounds like" by "putting it on a pedestal and walking around it."[22]

Woodblock polyrhythms now turn into a rush of thirty-second notes as a final *glissando* rips upward in bassoons, horns, trombones, euphoniums, tubas, and contrabass. Saxophones, trumpets, and piano respond with a quick, chromatic riff indicated "shrill", leaving behind one last tone cluster, with a bass pitch of C, in piccolo, flutes, oboe, English horn, clarinets, and vibraphone.[23] Pann begins this cluster at *fff* and allows it to slowly fade away under a fermata with score indication "long."[24]

The Coda II of "Mercurial" ends with a predictable programmatic feature, the final statement of Pann's machinery. Return of the opening fanfare immediately followed by a sustained tone cluster brings *Four Factories* to a dramatic, but eerie, uncertain end. When asked to describe these last measures, in addition to comparing them with "the Borg," Pann discussed imagery and a comparison with features from the first movement:

> This is the most alien sound I could come up with for just the winds. It was just a scoring choice on my part to swoop all the brass up, give you that first gesture in the trumpets that looks like it's from the very first page of music in the score. And then have this chord, which is a non-chord. It sounds to me like a wall-socket that has just been flanged or been short-circuited.[25]

Pann chooses "Mercurial," the final movement of *Four Factories*, to present one last fast-paced, frenetic machine. With diverse features and an

---

[22] Pann, interview. See Appendix B, p. 134.
[23] Pann, *Four Factories.*
[24] Ibid.
[25] Pann, interview. See Appendix B, p. 134.

impetuous spirit, the fourth movement demonstrates Pann's ability to combine straight-line and arch-shaped melodic material, colorful harmonic language, rhythmic energy, and frequent orchestrational changes to produce a thrilling *scherzo* romp. Through the use of fluid motives and key areas, orchestrational variety, dramatic programmatic elements, and a return of the opening material from "Locomotive," the composer "flexes his muscles" to drive *Four Factories* to its breaking point and provide closure for the work as a whole.

CHAPTER 6

SUMMARY AND CONCLUSIONS

Four Factories is a highly compelling work for wind symphony that is reflective of Carter Pann's "DNA as a composer" and deserves continued study and performance.[1] As discussion of compositional characteristics enlightened by interviews with Pann clearly shows, *Four Factories* offers a captivating premise, dramatic programmatic elements, and intriguing compositional characteristics. The composer is successful in creating a spectacular work that melds many influences and reflects his own unique style.

Pann indicates that a reading of Ayn Rand's *The Fountainhead* and an interest in the music of George Antheil served as inspiration for *Four Factories*' large scale and programmatic features. This motivation is worked out through sweeping arch-shaped motives and themes that appear throughout the composition and contribute to a sense of height and grandeur. Massive orchestration, including six flute, clarinet, and trumpet parts, provides powerful forces for moments of rich color and extreme intensity. Extensive use of percussion, including siren, ratchet, woodblocks, and anvil, contributes to a varied soundscape, including mechanical sounds fitting of the work's premise. These highly expressive characteristics reveal Pann's uninhibited desire to create music for wind symphony influenced by the scale of Howard Roark's landmark buildings and George Antheil's fearless compositional practices.

---

[1] Carter Pann, interview by the author, 7 May 2009. See Appendix B, p. 107.

Orchestrational challenges result from this inhibition, however, particularly with wind and percussion parts that require virtuosic skill, and brass parts that extend into upper registers. Technical demands for woodwinds are significant, including the flute, oboe, and clarinet ostinato figures in "Locomotive" that alternate as if performed by separate hands at the piano. This sixteenth-note pattern is a daunting task to perform cleanly at tempo of quarter-note equals 160 for more than 100 measures! Another orchestrational challenge is the initial trumpet one entrance on high A in "Locomotive" which has led to inaccuracy in live and recorded performances. Pann's abilities as a virtuosic pianist, and his experience composing for strings likely lead him to take these risks for winds and percussion. To his credit, Pann admits a strong desire to learn from orchestrational choices such as the opening trumpet pitch:

> The A that the trumpets come in on, that's a hard note to catch right on. A hard note to hit right on. I didn't realize that. I thought F was the hardest note, but no it's A. I'm noticing every time I hear the first note of Four Factories, it's cracked. It's got to be that note. You learn these things. This is how you learn, and I won't do that again.[2]

Four percussion parts, each with an extensive list of instruments to be performed, add timbral color and interest to *Four Factories*. These requirements are not without challenges, however, as percussionists must make frequent instrument switches or assign more than four players to cover all parts. For example, in mm. 68-105 of "Locomotive," the percussion three player must cover medium low wood block, suspended cymbal with brushes, and snare drum. These changes come with fewer than four measures of rest at a tempo of

[2] Pann, interview. See Appendix B, p. 130.

quarter-note equals 160, creating a need for detailed planning by performers and consideration for modification of part assignments or the addition of players.

The outer movements of *Four Factories* feature highly effective programmatic elements that depict large machinery. The first movement "Locomotive" suggests the start-up, life, and destruction of a large engine or generator through heralding figures, a minimalist-inspired ostinato, and dramatic winding down of rhythmic and textural elements. Similar programmatic gestures return at the conclusion of the intense fourth movement "Mercurial" to provide *Four Factories* with closure. These effects are generally very successful, with aggressive trombone *glissandi* and other dramatic moments of the work often startling first-time listeners.

The inner movements of *Four Factories* demonstrate diverse compositional techniques. Baroque features, including a *basso continuo*-like texture, are utilized in movement two "Gothic", while a beautiful clarinet canon in movement three "At Peace" reveals Pann's sensitive nature with a "color palette" of harmony.[3] While pitch centers among the movements primarily reflect a tertian relationship with G, a shift from B minor in "Gothic" to B-flat major in "At Peace" serves to cleanse the listener's palette and emphasizes the third movement's harmonic focus. Figure 6.1 provides a description of distinguishing features and pitch centers of each movement.

[3] Pann, interview. See Appendix B, p. 127.

Figure 6.1: Features of each movement of *Four Factories*

Movement	Features	Pitch Center
I. Locomotive	programmatic elements, arch-shaped melodic material	F Major/ G minor
II. Gothic	Baroque characteristics, arch-shaped melodic material	B minor
III. At Peace	harmonic focus, motorized color palette demonstrated in clarinet canon	B-flat Major
IV. Mercurial	varied orchestration, metric instability, return to programmatic elements from "Locomotive"	D Major/ G tone cluster

Melodic material in *Four Factories* consists primarily of arch-shaped figures that are generally constructed with step-wise intervals or consistent patterns of intervallic leaps. Pann states that he takes care to create balanced melodic lines that "soar" and "then come back down to earth."[4] These arch-figures serve a dual purpose as sources of optimism and reminders of the frailty of each of the composer's machines.

Another of Pann's compositional characteristics is the use of extended-chord, common-tone harmony that often includes the use of stepwise "walking" bass-line motion. When combined with the relatively unexpected sounds produced by these chord series, this active bass movement provides a degree of predictable function. Pann describes his innovative use of harmony as a hybrid of styles:

[4] Pann, interview. See Appendix B, p. 94.

> My harmonic palette has one foot in traditional Western grammar, sentence structure, functional harmony. One foot in it and the other foot in 1970s major and minor seventh chord pop. It's like a hybrid. For me that is as exciting as anything. I'm channeling the way Stevie Wonder uses harmony or the way Steely Dan would use their extended chord harmonies that are so frustrating to try to play from the radio.[5]

Pann's harmonic palette shows that he is influenced by popular music from his childhood alongside his formal education. The use of common-tone, extended-chord harmony is also reflective of his strength as a pianist. Much of Pann's compositional process occurs at the piano, where slight hand changes may produce innovative harmonic progressions. The composer indicates bluntly: "I write what sounds good at the piano."[6]

Rhetorical devices are employed to great effect in *Four Factories*, often in an effort to reinforce or develop a melodic idea, or indicate transitions. "Bullet shots", or repeated pitches that create a hammering effect, are used in "At Peace" to reinforce B material and in "Mercurial" to add intensity and create textural contrast in Coda I. *Glissandi* appear in three of the movements, including during the opening material of "Locomotive," as a destructive force in "Gothic," and at the conclusion of Coda I material in "Mercurial." The use of bass trombone and low reeds, particularly the bass clarinet, is notable in key moments. Pann states that he has a preference for bass clarinet and bass trombone colors, and this preference is made manifest during the minimalist bass clarinet solo in "Locomotive", and appearance of descending lines in trombones

[5] Pann, interview. See Appendix B, p. 99.
[6] Ibid., p. 132.

and low reeds at the conclusion of "At Peace."[7] These devices are highly expressive in nature and reinforce the dramatic character of *Four Factories.*

The final page of "At Peace" includes a sudden reduction of orchestration from *tutti* ensemble to clarinets alone for seven measures, before a return to larger orchestration for the final measures of the movement. These changes create a striking visual effect in the score, perhaps a nod to Pann's experience creating decorative scores during studies with Joseph Schwantner.[8] Diverse compositional techniques bring variety to *Four Factories* and reveal the composer's ability to craft a work that offers appealing characteristics beyond sheer programmatic effect.

The freedom given to Pann to compose *Four Factories* with such large forces and expressive characteristics is a credit to the composer's shared background at the University of Michigan with conductor Kevin Geraldi. Aware of the *SLALOM* transcription's initial success, Geraldi sought Pann as a familiar composer during UNC-G's commissioning process. During initial conversations regarding the *Four Factories* commission, Geraldi gave Pann "carte blanche" to compose with large forces and of a grand scale.[9] This outcome demonstrates that while Pann did not write for wind and percussion ensembles as a student at Michigan, his relationship with Stuart Sims and Kevin Geraldi, conducting students of H. Robert Reynolds, has proven fruitful.[10]

---

[7] Pann, interview. See Appendix B, p. 99.
[8] Ibid., p. 112.
[9] Ibid., p. 116.
[10] Ibid., p. 117. Stuart Sims, Director of Bands at California State University-Stanislaus, led the consortium that commissioned *American Child* in 2003.

A dichotomy exists between Pann's demonstration of soaring, arch-shaped melodies, use of lush tertian harmonies, and a recurring destructive tendency that in each movement answers beauty or success with a form of ugliness or pain. Each of Pann's machines is pushed beyond its breaking point before self-destructing in dramatic fashion. In the first movement "Locomotive," Pann's "soaring tune" re-appears in an expanded form before being interrupted by heralding horns and losing rhythmic energy in an unwritten *rallentando*. After establishing a rondo phrase structure in "Gothic," Pann creates an unmetered chromatic interruption and concludes the movement with explosive trombone *glissandi*. The pervasive clarinet canon that characterizes the third movement "At Peace" ends in an awkward self-destruction, and the fourth movement "Mercurial" brings a final conclusion to *Four Factories* as Pann's machinery slowly terminates as a sickly tone cluster.

I observed during personal interviews with Dr. Pann that he kept a black shirt nearby featuring the slogan "Too tough to die," leading to my speculation regarding Pann's personality and its affect on the outcomes in each movement of *Four Factories*. While the composer denied being a "bad-boy" like George Antheil, he did admit creating *Four Factories* with such an attitude in mind.[11] Pann's tendency toward destruction in each movement serves as a unifying characteristic of the composition and simultaneously reflects a balanced compositional approach, much as his arch-shaped melodic material does. When asked if this tendency fulfilled a specific motivation, Pann responded:

[11] Pann, interview. See Appendix B, p. 123.

> Each of these movements ends in a similar way and you've pointed that out, and that's a unifying characteristic.… All I did was blow up this balloon to varying degrees to see if it was going to pop… and then I let go of the balloon instead of popping the balloon. That's mass capacity of sound and color and brightness for these pieces and then it sort of fizzles like a sparkler. That's how I decided – I made a conscious decision to end these movements like that.[12]

While Pann may not be society's "bad-boy" or a social outcast, his "conscious decision[s]" while composing *Four Factories* suggest a kinship with Howard Roark. Just as Roark's designs paid no homage to his contemporaries, Pann aggressively writes music that is independent of others. Like contemporary architecture, *Four Factories* is a fearless composition that is highly expressive, technically difficult, and is as likely to frighten the listener as it is to please.

Compositional choices made by Pann in *Four Factories* have created a work that is representative of his "DNA as a composer" and worthy of study and performance. Illumination of *Four Factories'* compositional features reveals unifying characteristics that also serve to define the composer, such as arch-shaped melodic material; use of common-tone, extended harmony; creative use of large scale orchestration; depiction of industrial themes inspired by Rand and Antheil; and a propensity towards destruction of the beautiful. These conclusions are reinforced by personal interviews with the composer and reveal a work that offers a captivating premise, dramatic programmatic elements, and intriguing compositional characteristics reflective of a highly capable musician. This "bad-boy piece" deserves a continued place in the repertoire for wind symphony.

---

[12] Pann, interview. See Appendix B, p. 120.

SOURCES CONSULTED

Articles

Kilpatrick, Barry. "Redline Tango." *American Record Guide 69*, no. 5 (September 2006): 257. Academic Search Elite, EBSCOhost (accessed June 8, 2009).

Nelson, Catherine. "REVIEWS CDS." *Strad 115*, no. 1375 (November 2004): 1231-1231. Academic Search Elite, EBSCOhost (accessed June 8, 2009).

Von Rhein, John. "Chamber music has a cozy home in Chicago." *Chicago Tribune* (IL) (August 11, 2006). Newspaper Source, EBSCOhost (accessed June 8, 2009).

"Minimalism." In *The Oxford Dictionary of Music*, 2nd ed. rev., edited by Michael Kennedy. *Oxford Music Online*, http://www.oxfordmusiconline.com/subscriber/article/opr/t237/e6824 (accessed June 20, 2009).

Books
(including dissertations and reference works)

Fletcher, John. “Joan Tower’s *Fascinating Ribbons* for Band: Genesis and Analysis.” D.M.A. diss., University of Oklahoma, 2002.

Johnson, Erik A. “Interpretive Analysis: *Piano Concerto No. 1* by Carter Pann and *Serenade in C minor KV. 388* by Wolfgang Amadeus Mozart.” M.M. thesis, University of Colorado at Boulder, 2007.

Lynch, John P. “Teacher Resource Guide: *SLALOM* by Carter Pann.” In *Teaching Music Through Performance in Band*, vol. 6, edited by Richard Miles, 882-886. Chicago: GIA Publications, 2007.

Nguyen, Vu. “Carter Pann.” In *A Composer’s Insight*, vol. 5. ts, 2009.

Pann, Carter N. "Concerto for String Quartet and Orchestra." D.M.A. diss., University of Michigan, 2004. In *Dissertations & Theses: Full Text* [database on-line]; available from http://www.proquest.com.ezproxy.lib.ou.edu (publication number AAT 3138216; accessed June 8, 2009).

Rand, Ayn. *The Fountainhead.* New York: Signet, 1971.

Whitesitt, Linda. *The Life and Music of George Antheil: 1900-1959.* Ann Arbor, MI: UMI Research Press, 1983.

Zuback, Amy. "An Analysis and Discussion of Ray E. Luke's *Sonata for Flute and Piano.*" D.M.A. diss., University of Oklahoma, 2007.

Interview

Pann, Carter. Interview by Russell Pettitt, 7-8 May 2009. Austin, Texas.

Programs and Brochures

College Band Directors National Association Conference. Austin, TX, March 25-28, 2009. Program book. *Four Factories.*

College Band Directors National Association West-Northwest Regional Conference. Reno, NV, March 20-22, 2008. Program book. *Four Factories.*

University of Georgia Wind Symphony Concert. University of Texas at Austin, March 26, 2009. Concert Program. *The Wrangler.*

University of North Carolina at Greensboro Wind Symphony Concert. University of Texas at Austin, March 27, 2009. Concert program. *Four Factories*.

Scores

Pann, Carter N. *Four Factories.* New York: Theodore Presser Company, 2006.

----------. *Slalom.* New York: Theodore Presser Company, 2003.

----------. *The Wrangler.* New York: Theodore Presser Company, 2006.

APPENDIX A:

IRB Approval Letter

The University of Oklahoma

OFFICE FOR HUMAN RESEARCH PARTICIPANT PROTECTION

IRB Number: 12585
Approval Date: May 06, 2009

May 07, 2009

Russell Pettitt
Music
500 W. Boyd Street, CMC 116
Norman, OK 73019

RE: Analysis of Carter Pann's Composition of Four Factories

Dear Mr. Pettitt:

On behalf of the Institutional Review Board (IRB), I have reviewed and granted expedited approval of the above-referenced research study. This study meets the criteria for expedited approval category 6 & 7. It is my judgment as Chairperson of the IRB that the rights and welfare of individuals who may be asked to participate in this study will be respected; that the proposed research, including the process of obtaining informed consent, will be conducted in a manner consistent with the requirements of 45 CFR 46 as amended; and that the research involves no more than minimal risk to participants.

This letter documents approval to conduct the research as described:

Consent form - Subject Dated: May 05, 2009 Revised
IRB Application Dated: May 01, 2009 Revised
Survey Instrument Dated: April 24, 2009 Interview Questions
Protocol Dated: April 24, 2009

As principal investigator of this protocol, it is your responsibility to make sure that this study is conducted as approved. Any modifications to the protocol or consent form, initiated by you or by the sponsor, will require prior approval, which you may request by completing a protocol modification form. All study records, including copies of signed consent forms, must be retained for three (3) years after termination of the study.

The approval granted expires on May 05, 2010. Should you wish to maintain this protocol in an active status beyond that date, you will need to provide the IRB with an IRB Application for Continuing Review (Progress Report) summarizing study results to date. The IRB will request an IRB Application for Continuing Review from you approximately two months before the anniversary date of your current approval.

If you have questions about these procedures, or need any additional assistance from the IRB, please call the IRB office at (405) 325-8110 or send an email to irb@ou.edu.

Cordially,

Lynn Davenport, Ph.D.
Chair, Institutional Review Board

APPENDIX B:

Personal Interviews with Carter Pann

(Abbreviations: C = Carter Pann; R = Russell Pettitt)

The following is a transcript of interviews with Carter Pann conducted by the author in Austin, Texas, on 7-8 May 2009. This transcript has been approved by the composer.

7 May 2009

R: Good evening Dr. Pann, how are you?

C: Great. It's great to see you, Russell.

R: Thank you. I really appreciate the opportunity to get to spend time discussing *Four Factories* with you.

C: Yeah, this will be exciting. This will be a first for this piece and I'm happy that it's coming around. I'm actually very happy that it's you who is doing it.

R: Well, thank you. If we could begin broadly, what considerations did you have regarding the overall structure of *Four Factories*? What relationships exist among the movements?

C: There are a couple of different relationships. One is not quite so formal in that all four movements are evocative of factory generators or what I might call different sized motors. That's how I've put these pieces together and how they might sound. The other more formal relationship between them from a listener's standpoint can be picked out from the first and last movements. The big generator that you hear in the first movement comes back at the end of the last movement – sort of the last dying gasp of this piece. These form a sort of bookend, encapsulated structure, or the two pillars of the arch that hold this piece together. And this generator that I'm speaking of is a very distinct sound in this piece because Four Factories is very tonal and yet this big generator is the most atonal and somewhat sinister sound in this piece. It's really like a boiler room that's sort of steaming over.

R: Are you saying there are thematic relationships between the first and last movements?

C: No, I think thematic is too specific. It's just to those who listen to this piece, unless they're incredibly educated and can listen to the middle-ground as

they're hearing the piece for the first time, then most people are going to hear this depiction of a big generator throughout the first movement and at the end of the last movement. There are no motivic similarities other than this character. And this character is not something that is full of motives. It's just a musical verticality. It's a big, big wall of sound.

R: And so then, are the individual motives unrelated in each movement?

C: You listen to this piece and you know that there is only one composer behind it. There are certain things in the second and third movements that are similar in the way that I write a tune and they way the gesture unfold and the shape and contour of the proper tunes. My legato tunes all have a certain shape that I'm only just recently objectively realizing I can call my own. It's not that other composers don't do this, it's just that I recognize this as something that I am drawn to doing.

R: Is that shape found in the melodic line? How is it presented?

C: The shape of a legato motive that is a particularly important motive. Let's talk about the second movement. In the second movement you've got this movement called "Gothic." The first three are not what I'm calling legato lines. It's these in measures four and five, you've got this antecedent and consequent, and then a repeat of that in measure six. It's sort of a truncated form of that – they swoop up then the answer. It's these pairs of bars. The pairs go all they way until measure twelve where you have the consequent lengthened, there's an extension here.

Now you look at these lines and they are stepwise basically, down and then up with a few skips. We have these pairs of bars. Even in this extended flowing line at bar twelve, you look in bar fifteen and there's a mini-extension on this. It's always delaying, trying to find a way to juice the harmonies to delay them for these pairings of bars. It's a very square movement in this regard. More square than the slow third movement.

I'm trying to draw a similarity between my legato writing in this movement and the legato writing in the third movement. If you notice you either have stepwise motion that moves up and then comes back down, or stepwise motion that moves down and comes back up. That's for me a balanced motive. It doesn't have to be six, five, four, three, two, one, steps, two, three, four, five, six. That's very straight-line down and up. If you can draw the shape of these tunes, usually it follows its own arch structure, whether it's upside down or an arch. The tune in the third movement *At Peace*, at rehearsal A, is that, but I just take all the steps and turn them into skips. At rehearsal B, at the key change to B-flat, this big tune in the trumpets, and in flutes as accompaniment.

I favor balanced contour in the tunes I write that are singing melodies. Generally that means start in a place, go somewhere, and come back to a place. It's very basic, composing 101, where you try to teach young composers to notice something in music that they love. It's one of the first things that you talk

about, how do you write a melody that soars and then comes back down to earth. It's like throwing a ball or pitching an idea, and then it comes back down to the conference table and everybody votes on it.

R: What other music do you find that behaves that way? Or is there a specific piece that is a favorite of yours, or influenced you?

C: Well, the pieces that I adore are the sort of grand masterpieces in the literature. Tchaikovsky's *Sixth Symphony*, those tunes are so balanced. The 5/4 waltz in the *Sixth Symphony*. Prokofiev's *Fifth Symphony*, that's another one. That's a pillar in my musical world, that's a desert island piece. The *Four Last Songs*, those are.

It's funny because you are nodding your head because you agree. We have these same pieces in common. Great music doesn't escape.

R: So you see this arch-form, if you will, in the lyrical writing, and you don't see that so much in the other music?

C: We were just talking about the inner two movements of *Four Factories*. The outer movements are *scherzi*. It's a different style of writing. In fact, the prime mini-motive that you see throughout the first movement, is an arch. It's just up and down. But in that character, you can see that those are just effects. This whole build-up to letter B in the first movement on the micro level….

R: In the program notes, you mentioned "motorized color palettes." Can you expand on that?

C: I do a lot of talking about music in terms of painting. I do that a lot. It has a lot to do with the fact that I once tried to explain my music to my parents, whose opinion I really value. They both have bachelor of fine arts and they are both painters. I'm writing that, and in this style, to call these motorized color palettes, it was really taking that notion all the way. That's how I visualize these pieces. Think about a canvas in which you slap paint. Think about that canvas as having movement or motion. You can visualize a grid that's humming along or shaking or moving along on a track or a conveyer belt.

And so, not to get too literal. So motorized color palette was an evocative term that seemed to give a lot of bang for my buck on how I think of these movements. It's like slapping color and brushstrokes onto trains, and conveyer belts, and motors that are moving along. You listen to the first movement of this and when you finally get to rehearsal B, the generator is revved up, and then rehearsal B is a conveyer belt. Is it written in the part? I thought I put *mf* conveyer belt. It was intriguing for me to score music like this because I don't know much music like this, unless you want to talk about Steve Reich. Actually, Steve Reich is the one minimalist composer who made the boldest mark on me as a kid listening to different kinds of music and familiarizing myself with the minimalists.

So, this at letter B, is as Reich as I get, and yet it's not. It's too brightly colored, almost pastel. It does too much harmonically way too fast. See, that is me doing minimalism. I don't have the patience for the dearth of that kind of working. This is still me writing this thing that flutters and flutters and flutters and goes along and is less organically melodic than it is insistent and megalomaniac music. It's megalomania music.

R: So, you see your use of ostinato as a minimalist trait?

C: My use of the ostinato in the first movement is not to tip my hat to being minimalist, it's really just a part of the first movement which is a technique to write this extremely bright color for this particular motor palette.

R: Using the term color palette, and you mentioned the grid for sound color. Does this imply that the melodic content emanates from these churning harmonic figures that are being repeated?

C: Yeah, it subtly does. Part of the gist of letter B in the first movement is to see how far I can go with just that. And to not introduce melodies or tunes and just go with a bright color. And I love the grand theme in music, but sometimes it's nice….

R: It's not until 88 that we get a theme.

C: Right. In the second trumpet.

R: How do you classify the material that happens in the bass clarinet?

C: It comes out in certain recordings and it's really just accompanimental. I think it was an interpretive option that Kevin Geraldi took in the premiere. It sticks out because we haven't had it and then it comes out. I wouldn't call that a tune, I would call that just a hook, a fragment, let's call it a fragment. I don't even really think the tune in 88 is a tune, I think of it as a hook, however it's a tune in second trumpet.

R: Because that material returns at 175.

C: That's right, it returns at the end.

R: Could you explain your choice of such large forces for *Four Factories*? For example, piccolo plus six flute parts?

C: That was because this commission from University of North Carolina at Greensboro was a carte-blanche commission. They wanted a big piece and had funds for it. I had just come off a wind ensemble piece before this called *The Wrangler* which uses six flutes and six trumpets. This ensemble, in fact, is just

about right on the spot the same as *The Wrangler*. I had been used to scoring that large. And so I decided to stick with that for *Four Factories* and exploit them, because I knew what I wanted to do for this first movement. I knew what I was going to do for the first movement and I thought it would be just brilliant in terms of color to have this many flutes and this many clarinets.

The size of this band is defined by how many flutes, how many clarinets, and how many trumpets. Six, six, and six. And then you have your normal allocations. SATB, I completely prefer SATB saxophones to alto, alto, tenor, bari. However, alto, alto, tenor, bari is a high school band standard. It is and there is no getting around it. I'm not going to ask a high school player to drag out the soprano sax they don't have. I had the ability to do another piece with large instrumentation, so I took the opportunity.

I revel in vertical color, so it was indulgent to do another one with six, six, and six.

R: What about the indication of "piano with large tam-tam"?

C: Only at the very end of the last movement did I want a huge gong hit. And there was nobody to do because I had all this percussion going on at once. The changes couldn't happen quick enough – there are four players and they are all going gang-busters at the end. I decided to give the pianist the tam-tam. I'm a pianist and I've played in large ensembles. When I have to hit a triangle or I have to do something that is kind of cool, I like it. You can get a gong on a rack and a pianist can hit it. I have yet to hear that, although I don't know what happened at CBDNA.

You don't see a celesta and you don't see a harp. And there's a reason for that. That is logistical constraint that I've put on. Not every place has a celesta that's good or has one. And harp is hard to come by at most schools. Is there a harp studio at Oklahoma?

R: Yes, however I've heard that OU's celesta was lost on the tarmac of the Moscow airport. Each of the movements of *Four Factories* appears to wind down or break down. Did you intend this?

C: I did intend it over time. I didn't go into this piece, just before writing it, pulling out the blank staff paper and saying I'm going to write four movements that die at the end. I didn't say that.

I wanted to write movements that could stand on their own. These are four movements. This is not a suite, a dance suite, a generator suite. It's four movements, it's Brahmsian in that regard. It's just big. It's huge.

When I listen to the third movement, "At Peace," I think this is like Mahlerian, its sweeps. I'm not trying to equate it. It's a world unto itself, that third movement. These are distinct characters. They are four different siblings of the same family.

R: Within your compositional style, what roles do harmony and modulation play?

C: Harmony is the greatest contributor to structural integrity. It's the greatest contributor to the speaking of the alphabet through music and what holds it up structurally. It's also the speed with which harmonies come.

R: Are you referring to progression?

C: Yeah, that's what I mean. It's as important to me as anything in the music. There are all these other factors. It's like asking a kid, "how many things can you say music is about?" Well, there's harmony, there's tempo, soft, loud. Melody, harmony, sad, happy. But, I lean on harmony heavily.

It's the most impressive thing for me to hear today, a young composer, or a composer who's my age, or just a living composer, how rare is that? A living composer who has a grasp on harmony, whether it be functional or just their own unique way of manipulating it like a ball of clay in a very facile but not cavalier way. I'm extremely impressed and I seek those composers out. Prokofiev does it. That's why I go back. Because today, it's not about harmony. We're about hooks and drumbeats. We're about bizarro. I have to look back. That's a real art, manipulating harmony.

R: Do you begin with harmony before moving to other features, such as melodic or motivic concepts?

C: I wish it were that cut-and-dried. I wish it were that systematic, it would make my life a lot easier. Because I would know exactly how to start every piece. I would find a system and do it. But it's not quite like that. What ends up happening when I start a piece of music, is I go through a visualization game. I visualize what I want to happen on stage with who doing what. I come up with a…. Like I want this affectation to happen and so I try to convince myself that that's a worthy thing to try to design musically. This is before even thinking about how to score for what instrument. This is a grand, large idea thing.

R: Are you asking "what is the purpose"?

C: No. I'm not asking what's the purpose. But I know where you got that. I'm asking if the idea I have to design four minutes of music, or eight or ten minutes of music, if that is worth spending however long it's going to take to design the music, and whether it's going to work.

So, worthy starts to sound like "is the subject matter worthy." But, whether it's possible. I think I know my limitations or what I do well. So there's this yeng and yang. I want to sort of shoot-the-moon always and see if I can stretch me, just a little bit more that way. Like I did with the concerto. *Concerto Logic* stretched me.

R: At the time did *Four Factories*?

C: Yeah. *Four Factories* is the biggest thing I'd done next to my piano concerto, the first one.

R: Did you get a taste of wind writing with *Wrangler* that prompted you to continue?

C: *Wrangler, SLALOM,* and *American Child* before *Four Factories.* But with *Wrangler* I had a taste of this exact instrumentation. You know, when you are juggling six flutes, six clarinets, six trumpets, it's different than juggling three clarinets. Everything is doubled. You have all of this verticality to fill up and options for sitting players out. All these options and the infinite amount of things you can do with this instrumentation makes for a whole lot…multiple it by factorial, that many more problems.

It's funny, I made a joke. I have to perform this concerto around a lot, and I'm performing on these nine-foot Steinways in these halls. And I say, "well my mistakes are going to be nine-foot mistakes." If I was on a six-foot grand at home it's not so bad. But, back to *Four Factories*, with all of these instruments to work with, you have to reign yourself in as a composer and you have to come up with a way to sort of do it systematically so that every page of blank staff paper you're not just facing Pandora's Box. There's so much color in a band, when you make it as big as this band for *Four Factories.* You have to watch out.

R: So that's one of the reasons that the conceptualization process is so important?

C: Yes, absolutely. If I didn't have an idea and I just started throwing notes down, it would sound like gibberish. On a palette that is this big. On a color palette that is like a color wheel that is really large and has all these different slats. What I have to do is before I start writing, I have to think big picture. I have to think about assigning colors to certain parts of the wheel. These colors are going to go together well for the sound of this piece. These are not. It's almost like shuffling cards around. But all in my head at first.

R: Did you plan a set of colors to *Four Factories* or for each individual movement?

C: I'd like to say it's specific to each movement. That goes to say that each of these four movements is sort of a piece and world unto itself. If you were to look throughout all of my band music, you would see that I favor certain doublings. *Four Factories* is as good a piece as any as a testament to all of my unique doublings.

R: Can you be specific about those doublings?

C: Sure. This is not unique to me by any stretch, but I like to use bass clarinet. I lean on bass clarinet heavily. I'll double the bass clarinet with contrabassoon and tuba and bass trombone. I will use the bass trombone. Of all the brass instruments I lean on the bass trombone the most for what I call more focused, edgy, low pitch. More than the conical tuba or euphonium, I'll use the bass trombone. When I've got a tuba and euphonium line, and I want more than one instrument on it, I will duck the euphonium out of it and put a bass trombone on it with the tuba, because it will focus the pitch as it's going.

So, the equivalent for me in the winds is the bass clarinet. The bass clarinet is my bass trombone of the winds. Obviously it's not the lowest wind. I love that sound of the bass clarinet. I love it. In fact, if there's any way I can clear all of the other instruments in that range away from it, I'll use the bass clarinet as the solo bass instrument, like you'll see in the third movement of *Four Factories*. When you get the soloistic passages, you'll see the bass clarinet as your bass. Maybe a bassoon comes in. But even in the "Rubic's Cube" of the piano concerto, you'll see this. I would love to write a bass clarinet concerto. I think it would be great and would be especially unique for me.

R: I know a clarinet player who would enjoy playing it. A couple of things I'd like to pursue a bit more. We talked about harmony. How would you describe the Carter Pann system of harmony?

C: It's funny. My harmonic palette has one foot in traditional Western grammar, sentence structure, functional harmony. One foot in it and the other foot in 1970s major and minor seventh chord pop. It's like a hybrid. For me that is as exciting as anything. I'm channeling the way Stevie Wonder uses harmony or the way Steely Dan would use their extended chord harmonies that are so frustrating to try to play from the radio. I could play any Billy Joel tune or Elton John tune by hearing it after a while. You hear it enough and I could sit down at the piano and pick at it. I can't do that with these other guys.

That's the mystery that I like. Since I have time at the piano while I'm writing, I just pick out those mysteries and put them in a compendium of functional harmony with a sentence structure that we're used to. It's like speaking sentences that make sense, but using dialect that's different, it's newer than you would say is Old English. Nothing about this is new except for my fusion. I've been banging my head against it long enough so that my fusion of it is becoming more refined. It's starting to feel like me. So, when you say "what is Carter Pann's harmonic system" I can actually write down a lexicon of harmonies that I know I will use again. In pieces that I don't even know are coming I can tell you that these harmonies. There's a risk there. You have to change it up. I can't just use the same twelve harmonies for the rest of my life. I know composer who do that and it's not as much as twelve.

R: How do you incorporate development of themes into your music? What role does development play?

C: That's an interesting question. There are different ways of defining development. My tunes are not developed the way they are in sonatas or rounded binary form. The big sonata-allegro form. I don't do that in these movements. I've done it and I've done it since this piece and I can point to that specific point. But the development of these tunes, since we are talking about motorized color palettes, they're just how can I design the four minutes, which is the average length of these movements, and develop the color by using these tunes.

I like A-B-A structure, I like it. And that's arc. It's just like my legato lines, you start somewhere, you go somewhere, and you come back. It's the same on that structural level as it is on the motivic, localized level. If you want to talk about developing motives, it's that shooting, throwing your motive away from itself and see what happens. It's a kind of a fantastical way of developing the motives in this piece. The first movement of *Four Factories* is kind of unlike anything else that I have. And I don't think of it as melodies that are being developed. In fact, developing melodies is a very, very sort of old antiquated concept that doesn't find itself done traditionally in this piece. And I underscore that.

The third movement, the song, is just melody. It's like Rachmaninoff's longest line. How long can this line go? To talk about development, go to rehearsal C. Rehearsal C in the third movement is as far away from the original tune as I can think of.

R: It's after the modulation.

C: It's after the modulation. Here's your bass clarinet.

R: This is your "Heroic Anthem" at C, right? And it serves as development?

C: That's it. C is the "Heroic Anthem." In a non-traditional way to develop a theme, I'm presenting a contrasting moment. A contrasting moment that is far from where we started. It's going to come back. You'll see how it comes back in this movement.

There's something about this movement that I need to point out that actually is akin to sonata-allegro form. This is a contrasting theme to the earlier one that just goes up and up and up. This one is more pedestrian, however it's scored so heroically and so grand. We only get that much of it and then we get this transition at 59. 59 to 69 is a transition back to the recap or the A prime. So it's a really truncated development, it's not really a development, it's just contrasting material.

So, the one thing about this third movement that channels sonata-allegro form is that the recap, the return of the melody at E, is in the tonic. It's like in sonata-allegro form, the second theme comes back after the development in the

tonic. It's just what it was. I could have gone back to G major and done that theme.

Here's another thing. This is a tertian relationship. This isn't a one-five-one relationship. The piece starts in B-flat and the theme comes in in G, G major. And that was intriguing to me. It makes sense because this third movement is based on the third. The whole thing is.

R: With the alternating pitches in the clarinets.

C: And the key centers are related by thirds as well.

R: Another general question about the timings of the four movements. They are roughly equal with the second being shorter. Any plan for that?

C: I knew that the outer movements were going to be big and bulky. That spoke to me. The inner movements, one of them would be a slow movement and the other a scherzo, *vivace* movement. The second one, the shorter movement, is not quite vivace, but it is dark in tone, poppy-dark in tone. The third movement is big and sweeping, large and "here I am, I'm going to be as beautiful as I can be, and as far-reaching and sweeping as I can be" in that heroic theme. It's drama. It's balance.

R: There is emphasis on the third movement.

C: The inner movements are more about the third movement. However, the fact that the second movement is so short, it is balanced because it is distinctive in style. It's like you're walking over hot coals in this Baroque saxophone, piano, and bassoon.

R: You're referring to the near constant sixteenth notes?

C: Yeah, and constant B-minor.

R: What's the premise behind the title "Gothic"?

C: Well, that's a visual evocation. I always say to audiences about this movement. It's like I'm in a huge stone mason's cathedral where these guys are just pounding metal onto anvils. They are making this hot, hot metal. They are in this big, huge structure from the 1100s. This opening is, to me, is like big staffs that court musicians had to play to. It's that kind of thing, one-five-one, very in your face. They're very square.

R: I had wondered if the sweeping gesture acted as an interruption of sorts?

C: No, it's not really interruptive. It's like heralding each of these melodies. Like trumpet calls.

R: If we could take a look at the first movement, and I assume that "Locomotive" refers to the factory theme.

C: Yeah, this factory happens to be an evocation of a steam engine.

R: Would you say that's represented at letter A, measure sixteen, by this generator idea that begins to rev-up there? Which translated is a diminution of rhythmic values.

C: Everything before letter A is two attempted start-ups. These two attempted start-ups just die. Actually they short-circuit. At letter A you have this grinding of gears, which is sort of very muscular. This is just how can I unearth this thing that wants to start and you see it in this very strident writing. It's like trying to write electronic music concrete for band. Those two first bars of A, and even in the third bar of A with the big swoop down, and finally the monster in the basement gets it's way and starts to just breath at 19, 20, 21, and 22. And then you get that chord, how does one choose his notes, but chords stacked in thirds with major and minor relationships, and then you put enough of them together and you are going to get this very resonant but very wrong sounding brutish harmony. In fact it's written here "heavy but not accented, brutish." Crude, but this is really just a caged beast at letter A. (sings) And it is a written out accelerando. But the wood block part actually is nothing more than an evocation of machine sounds and clocks that keep ticking. Mechanical sounds but in four different color woodblocks. I didn't want to put them in metals, because metals would just completely eat up the sound, just eat up the soundscape, so I had to put them in woodblocks. When it starts to accelerate, it's easy for people to hear something and then they start to accept it. You want to go forward. It finally revs, with these diminutions of note duration here and then all of a sudden…

R: That's your generator starting to fire up.

C: On page five we really hear that it is starting to fire up with the chord glisses. This chord happens to be a six-four chord for analysis that is again just tertian harmony that slides up. Those kind of chords have the most resonance. With all this other stuff going on you can still hear those trombones glissing up. Then you have what I call Corigliano 'flutters' or flurries, these sorts of streaks. These are all over the place in his First Symphony, I copped those.

This is just creating wind, this is like creating wind for trumpets. All of this is in service of building up this generator.

R: So the tension is increasing?

C: Yes. In fact at bar 29 it reaches its climax with the trumpets.

R: And suddenly then we see the shape of the lines change.

C: Yes, and you even see it in the high winds. In fact when I said wind before – this is wind. This is like a wind tunnel. This effect at 29 is an orchestration trick, dove-tailing.

R: Is the focus on creating texture, more so than harmony?

C: Yes, absolutely, it is creating a gestural effect. And this whole page six, bar 29, 30, 31, 32, and 33 is in fact an extension of this whole gesture before it. As if this whole gesture were a phrase, this is the extension. We've just dropped, we've just tumbled down in the trumpets. So, what's going on here is delaying the gratification.

And then this bar 33 is like the sentinal of what happens at B. It happens again at the counterpart later.

R: So how do you describe what is going on harmonically in 30 through 33?

C: 33, you look at this clarinet gesture and it is sort of like boot straps or a belt that gets so tight that it breaks. Or suspenders that get stretched and snap.

R: You have a slapstick at the end of that figure as well.

C: Well, yes at B, but this is just sort of like unbelievable giddiness at 33. It goes from an F six-four chord to a Bb major 7^{th} then F is the big key at B. It's kind of plagal!

R: So then at B, we get the ostinato figure that going to go for a while. You've described that before as quasi-minimalism.

C: And actually to be more specific, right before that is a cadential six-four, however the dominant part of that is more of a decoration.

R: We had discussed thematic material all the way over at 88 in second trumpet, however we loose the ostinato figure at 62 for six measures. Is the pitch set that would be in winds replicated by 16^{th} notes in piano, and percussion?

C: The piano is a reduction of the harmony. The whole reason for 62 through 67 is a turnaround. Finally at B my F major-ness is getting off track. It gets further away from F major, in fact so far away that we get to G major six-four at 60 and finally we've got the big huge dominant Roman numeral dominant to get us back to F major. So it's basically the end of a verse and it's a cadence. It's one of those big cadential six-four's and I needed to change the texture. We loose the swooping etude, that's an etude. And then we get this because it's a

turnaround. You know in drumming we get a turnaround. It had to be a very bright change in texture or else there's only so much of the other that I want to hear.

R: Speaking of bright texture, we have trumpets with quintuplets.

C: Yes, exactly. Because we haven't heard the trumpets since B.

R: Good to use them again so their egos won't be damaged.

C: Oh, the trumpets are all over this tune!

R: So, we're back in business at C.

C: Yeah, we're back in, with a few more decorations. And then the texture starts to get a little more fancified. For instance at 75 we didn't have any…at B.

R: So if we make a comparison of 88 and 113, I'm considering 88 theme A is presented and 113 theme B. Do you see the material in the two places as that different?

C: Actually it's really tempting to call this a theme, but that's a little strong. All these eighths are little more than just repeated notes. (sings) It's a really pedestrian tune.

R: My thinking was that it comes back later and this transition from 96 to 112 exists between them.

C: Right, but these are different subsections of this train. They are like different cars on this train, that you're walking from one train car to the next. And hearing different sounds, so it really is just gestural.

R: Ok, so a gestural idea at 88, a gestural idea at 97. We get the same gestural idea at 105. And then 113 you consider to be the primary theme?

C: Yes, and then it comes back again much bigger, it goes further. It's always about saving it and then repeating it and doing it more.

R: And then the crowd goes wild.

C: Yes. Very sing-song-y there. That's a motive, a soaring tune right there.

R: And then we get more transitional material at 122.

C: We are getting to the middle of this movement and coming back to the generator again.

R: At letter F we start the generator again.

C: Actually the generator begins at 129. Right there, with the woodblocks. And that chord. You're going to hear a similar chord on the last chord of the piece. And what happens at F is like a caged animal, this generator that's trying to start up again.

R: Ok, I see, we've got the woodblock after E, but then it goes away, then the polyrhythms at 1 after F like earlier.

C: Yeah, exactly, so F is where this generator has taken. You notice the clarinet gesture at F and its predecessor at third bar of A. This is that caged animal that is finally starting up now.

And it lasts longer because it's the second time and the middle of the movement. And plus 149 is different from the first starting up – these chords are scored for more brass instruments and they're rising by half-step. I added contour to this and it adds excitement.

And we get finally to the climax which is at 163. This is followed by the big tune.

R: And at that climactic moment we have four f's in the low brass and triple f in the woodwinds. And the siren. Do you know if this is close to the Golden Mean?

C: Yeah, I'll bet it is.

R: So we present some of the earlier material again at 175, but you're not describing this as thematic, right?

C: There are tunes that peak their head out in this movement, but they're not tunes the way the tunes are in the second, third, and maybe even the fourth movements.

R: Does this reflect the minimalist quality you've sought to give the first movement?

C: Yes, exactly. This is dripping with minimalism but it's not acting its part. It's not acting the way it should. These little snippets, even this big climax (sings), that's note really a tune.

R: Yes, I should ask, is that related to previous material or is this just an heroic construction?

C: It's taking the notion of climax all the way. This is huge horrifying tune and that is a beautiful note on the horn right there, the A-flat, it's so easy to catch.

R: I see intervals of 4th, 5th, 6th, so very open sounding intervals and in an arch shape.

C: Well, what's the whole etude? (sings ostinato pattern) And all of those are skips. So, it's a shape thing.

R: So, you're beginning to summarize then?

C: Yeah. That's a good way to put it.

R: After you've passed the climax?

C: Yes. Passed the huge climax.

Alright, I'm going to tell you this. From bar 171 to 173, those two bars. That's the fastest way, I needed to get out of this climax really fast. I'm amazed at how fast, it just took two bars to get back to this thing here.

And now, actually this recap, how do you get to an F major 6/4 chord and then your nice huge poppy chord out of this fire and brimstone. That's what I had to do in those two bars. And it has to do with the chord that I decided to land on in the trumpets and bring it down subito.

At G, which is A prime or the recap, I've got piano playing the part of a harp. Everything's jacked up and turbocharged. I've use a few more instruments than at B.

R: So the second trumpet part from B, now we have more instruments playing it at this point.

C: But it's not as tuneful as that point. That will come back in G. This is the same music, but now its stronger. This music went through a world of hurt and now it's stronger.

Now, also, I wouldn't even call this a tune. It's soaring and skyward. The saxophones are really riding the crest of a wave. I needed variance. I go on a lot of intuition. I needed something here and what's it going to be? It's saxophones singing their hearts out on this thing that may have no relation by pitch to any motive that we're going to hear later on in the piece. There's a space that needed to be filled on the recap of this etude. We've already heard this etude. We need to hear something more or in addition to it. I think I have a short attention span. This is what makes music alive.

R: And you're making hairpin shapes?

C: I'm making hairpin shapes. It's not a flatline.

R: And then from letter J where we're winding down, are the percussion rhythms related back to the woodblock parts?

C: The theme before J is that extended theme.

R: Tell me about the extended theme.

C: That quarter note theme is extended. At J, the woodblock and anvil. What I wanted to do is evoke jack-hammering in the street in the city. How am I going to do that? I'm going to do that with an anvil and two carpentry hammers, a bass drum, get the woodblocks in there, and just start hacking away.

R: So, this is related to the woodblock parts we had earlier.

C: It is. But I add different colors.

R: But it's beefed up?

C: Yes, a little beefed up, just like G, the recap of the etude. And this is going to take us out. This is such a bold movement that I wasn't going to end it on this chord, that is the tonic chord.

R: This movement, like the others, seems to wind down or break apart, right?

C: Right.

R: We have to break it down, we can't just end heroically, right?

C: That wouldn't be as mechanical as I want these movements to be. That would be too organic a way to end these movements. I like organicism inside these movements but that would be too soft for these movements. Other pieces can be soft and cushy. You picked a mean piece.

R: So, tell me about intended similarities among the movements.

C: You can look at each of these movements and deduce my DNA as a composer. My rhythm of musical import from the beginning to the end of these movements. Where do the high points come? Where do the points of massive orchestration happen? The thinning out. You know, I breath at a different rate than everybody else, and you do too. That's a little less than specific but it would be quit a feat to try to find the unifying characteristics of Four Factories. If you can do that, I would applaud you.

R: Did you set out to create a work that is challenging for the players?

C: It's like a thumbprint. Equal parts for each player in the band. Third oboe, second bassoon. I treat them basically just like an equal with the first. Because I have to put myself in the seats of these players. I want these pieces to be players pieces along with audience pieces. There is no sense in writing a piece that is just brutal masochism from the seats of the players. I just don't like that. To get some affectation across, you ought to be able to do both as a composer. I'm not just trying to serve up a way to spend five minutes of your time, I want the players to get something out of it too. I'm totally egalitarian when it comes to orchestration.

R: Do you think that comes from your background as a pianist?

C: Yes, absolutely. And as a performer, the last thing I want to do is see a part in a piece like *Four Factories* that is just hum-drum. It would be an insult. I wouldn't do that to a player. I don't want any of my players to be disengaged and they will be with a part that they believe they don't have to concentrate on nor practice.

8 May 2009

R: Okay, Dr. Pann, so you were born and raised in La Grange, Illinois?

C: Born in La Grange, raised in a suburb right next door called Western Springs.

R: And did you attend public school or private school there?

C: I did, public school from the very beginning all the way through high school.

R: Were you involved in music in school?

C: Yes, in middle school I was a trombone player in the band. I wanted to be a tenor sax player, I remember that. I played that instrument for two and a half years, and also a little bit of baritone horn in middle school concert band with my director Bob Bajek. I promptly let go of it, I didn't continue in band in high school. But in high school I joined the choir – that became my sort of musical thing in high school and went all the way through to what was called Varsity Choir. I did some arrangements for the choir, accompanied them quite often, and sang some solos. The director, Robert A. Boyd, was a big mentor of mine, and in fact he is a composer and he wrote a piece and dedicated it to me for the Varsity Choir and had me sing a solo in front of the chorus. At the end of that whole senior year experience I ended up getting the "Best Senior Musician Award" for the school at the large assembly. My picture is up on the wall at the high school. It's like the big fish in the small pond.

R: Well, congratulations on that award!

C: Thank you!

R: Your piano training had occurred outside of school?

C: My parents put me on the piano at four years old. They started me with Suzuki, learning with a nun, Sister Mary Joseph. Then I took a year off when I was five, and then back at the piano with my grandmother, and she took me for piano lessons from six years old to about eleven. My hands started to grow fast and I got stronger, then I started to play a lot of repertoire very fast and I became obsessed. A light bulb went off in my playing and my thinking about music.

I then switched over to a local teacher Doreen Sterba and she took me all the way until fifteen and said I can't teach this boy anymore, you have get him to Emilio Del Rosario, who is a real magnet teacher in Chicago. In fact he was such a magnet that people from all over the country would come study with him, namely students would fly in for weekly or monthly lessons with him. He was probably the brightest light of piano teachers in all of the Chicagoland area for pre-college kids. This was when I was in high school, I started studying with him when I was fifteen. That's my piano training.

R: Was your grandmother a trained pianist?

C: She was not a trained pianist. She took piano when she was small, but she always kept it in her. She was talented, so even up into her fifties and sixties she could still sit down at the piano and play. She loved to play Deep Purple and she loved Leonard Bernstein. And she loved Leonard Bernstein's playing and conducting of Gershwin's *Rhapsody in Blue*. He was a bit of a hero to her. So it kind of rubbed off down to me. Her taste in music was pushed on me at the piano. From six to ten what am I playing at that age? Just a small kid.

R: Is she still living?

C: No. She died in 1995.

R: What was your grandmother's name?

C: My grandmother was Emily Kvavli, a Norwegian name she took from her husband.

R: So at what point did you start to develop an interest in composition?

C: Very early. I started to write music in a really small half-letter sized notebook of staff paper. I started to write these piano waltzes that still exist somewhere. And pretty much all of them are in C-minor. They were these little

piano waltzes that were written for me and snippets of things that I've heard. I listened to the *Nutcracker Suite* over and over again for my entire eighth year. And so a lot of these piano waltzes sound very Tchaikovsky-esque. They are really very cute and quaint. That was me starting to write music.

R: What age?

C: Eight, Nine. I remember a trip that we took where my parents took me to Disney World in Florida with my two younger siblings, a brother and a sister. I remember walking around with them in my hotel and in and out of Disney World with a tune going in my head. I was writing something in my head and it was the first time away from a piano. I had to get my hands on paper and draw staff lines. I remember I had to write out staff lines on a piece of notebook paper. And in the car down in Florida I was writing this piece to the best of my ability with the limited ear that I had away from the piano. It was like a scientific experiment for me to do this. I was so excited to see how much of this I could get down and then when we got home I would check it on the piano. I was like nine years old, so that was a really cool experience!

That got a bit excessive. The composing just came more and more and more. I wasn't studying composition with anybody until I was sixteen.

R: So who was your first composition teacher?

C: His name is Howard Sandroff. I had done arrangements for my choir in high school. That was kind of coming to the fore. I grew such a good ear at that point that I could hear anything and write it down or transcribe it or arrange something for another set of instruments.

Then I started studying with Howard Sandroff as one of his high school pupils. He was on the faculty of the University of Chicago at Hyde Park. This was 1988.

Howard put me on a regimen of studying the Bach chorales. Analyzing just the Bach chorales and looking at music. Ralph Shapey was his mentor and he would put me on five-note objects. He would make me write down a five-pitch object, just note heads. And then we would determine how useful it was by putting it through a series of vectors. I would circle them and then we would see where the circles around these objects coincided for different transpositions. It was kind of like working with different matrices.

It's not Ralph Shapey. It's Morton Feldman. I think Howard Sandroff was giving me a bit of Morton Feldman. And Howard gave me a good diet of his music too. He's very much a modernist. I only had him for two years.

This is very much a composing event in my life when Howard gave me the Steve Reich *Octet* album. It's the Steve Reich Ensemble playing *Music for Large Ensemble*, the *Octet*, and *Violin Phase.* He gave that to me and I had no idea what it was. He was going to let me borrow it for a week and on the way out of my lesson I asked him if he liked that music. He said, "No I don't like that music, I'm having you listen to it for pacing in your own music." And so I went home and

promptly put that album on my sister's plastic turntable in her bedroom and just soaked myself in the sound. It was the most beautiful thing, I was not expecting what I heard. It was really gorgeous to me. I had not heard these colors put together in that way. And I thought all modern music was spidery and thorny because he represented it to me at that point. But this Steve Reich music was bold primary colors of this beautiful tonal soundscape that just rolls, just rolls along. I thought to myself, Howard, my teacher, doesn't like this stuff? I became like a junky on this stuff. I surrounded myself with it.

R: So, did these experiences influence your decision to attend Eastman?

C: I was becoming a composer in my head, it was a dream, and I wasn't letting go of that dream. I was also at the apex, the pinnacle of my pianistic abilities at that point. I was practicing seven hours a day. I was just feeding this fire of feeling good about music, and feeling confident that I could do it – I have to attribute that to my parents and their encouragement.

I only applied to the University of Illinois and the Eastman School of Music and I did it because I desperately wanted to go to a conservatory. I read up on Julliard, Eastman, even Rice and Peabody, and I wanted to go to Eastman because Emilio del Rosario, my piano teacher mentioned that I should study with Barry Snyder. I had no idea who was where around the country, though I had met Barry Snyder the year before at a piano institute.

So I applied to Eastman and Emilio wrote a recommendation. Howard Sandroff wrote a recommendation, too late, I found out. And I almost did not get in. Sam Adler did not accept me until he received Howard Sandroff's recommendation letter past the application deadline. He said "too bad he doesn't have a composition teacher, do not accept," like in high school, because they wanted to take people who were already doing it, already taking formal lessons.

R: Before we move forward with Eastman, are your parents musicians, and were they formally trained?

C: No, they weren't formally trained. My mother could play some Mancini on the piano, but she doesn't do that anymore. And my father has no musical background. He would pick up an accordion and play it as a joke – he'd get around it a little bit.

R: But they were highly supportive of your pursuits?

C: Very. It's because of my mother. At that young age, my mother was the head on their shoulders. My father was very supportive, but my mother wanted to raise her first son correctly and put him on an instrument, because her mother, my grandmother, was a musician. A lot of her cousins had a musical bent. My grandfather, her father, was musical too. I don't know about my father's parents, in terms of their music.

R: So, what were the highlights of your experience at the Eastman School of Music?

C: At Eastman I was four years there and it was my first befriending of a lot of people doing the same thing I was doing. A lot of musicians, a lot of composers. I was in a college with some stellar musicians, and I wasn't surrounded by that in Western Springs at my high school which was Lyons Township High School, a big public school in Chicago.

But Eastman was an incredible experience. I was very young and in party mode. I ran with a crowd of composers and some instrumentalists who are to this day some of my best, deepest friends. I got to hear orchestral concerts regularly. I went once or twice to the wind ensemble concerts. I wrote a lot of music. I put it into high gear. I put my engine into fifth. I was obsessively writing and practicing, playing the piano constantly and writing music. I studied with Sam Adler for my freshman year. I didn't realize how important that was, that Sam Adler is this pedagogue in the country who finds himself in encyclopedias. And he's written an orchestration treatise that is sort of in line with the great treatises in the past and all the way up through the 20th century. The Piston, Blatter, the Kennan, and the Adler. Back before that the Rimsky-Korsakov and the Berlioz.

So, he was a great mentor to have upon entering college just out of high school. I learned a lot from him. He put all of the freshman class on a trickle-down regimen of ten melodies, we'll pick a good one and hone it and it will become a solo piece. We'll write five duets. So then the first piece you write is a solo piece, the second piece you write is a duet, and then we go up from there. And then he let us go where we wanted to go.

He introduced me to the music of Joe Schwantner. I know this was engineered because the whole freshman class was going to move to Joe Schwantner the next year and study with him. So he introduced me to a piece called *Sudden Rainbow*, it was an orchestral piece. And the music of Chris Rouse, he did that too. And so I went up to the Sibbley Music at Eastman and just ate this music up. I would just sit there at a turntable and just soak it up, I couldn't get enough.

I studied with Joe Schwantner and I tried to write like he did. He became a hero. He comes from Crumb, George Crumb. And so the score is beautiful, almost embroidered in manuscript and calligraphy. It's just a pristine score and I got swept up in that and I started to make my scores beautiful as a sophomore in college. I needed to hone my music and here I was making the prettiest scores I could. I was very confident, I thought I knew what I was writing and I might as well make it look good.

R: Were you writing anything for winds at this point?

C: No, I wasn't writing anything for winds. I tried to write a woodwind quintet, but I wasn't writing anything for wind ensemble. That didn't happen. I didn't know wind ensemble music very well at all.

R: You mentioned you had attended some of the Eastman Wind Ensemble concerts.

C: I attended a couple and a Lois Ferrari was the conductor, maybe she was under Hunsberger. It didn't strike me to go to wind ensemble concerts. I was looking right to orchestra. I was looking right to concertos, to chamber orchestra stuff, to solo piano stuff, to pretty much anything I could write for.

R: So, was there a break between your time at Eastman and Michigan, or did you go straight through?

C: I went straight through. I studied with Warren Benson my junior year and then David Liptak my senior year at Eastman. And then I went straight to the University of Michigan. I went there because of Bill Bolcolm and Bill Albright, they were 20th century ragtime masters. So I went straight there and had a two-year master's degree from 94 to 96. And then I went right into my doctorate with no break. I entered as a Ph.D. student and took another semester with Bill Albright. Eventually along the way I studied with Bright Sheng, and Evan Chambers and Michael Daugherty as well.

I went straight into my doctorate as a Ph.D. and then stopped, took a year off because I needed a break. I thought I was in the wrong degree, thought I needed to be doing a D.M.A. That is because a D.M.A. is a performance-based degree and that is still what I was. I was the pianist for the Contemporary Directions Ensemble under H. Bob Reynolds. I got a lot of performance in Rackham Hall and I realized if I was going to continue to do this I did not want to get a Ph.D. which was a literary degree as a composer. And I wanted to do a D.M.A. which would allow me just continue to write music and allow me to amass credits in performance.

I was teaching at the University of Michigan as a graduate assistant. I was teaching aural skills, I taught a little bit of written theory, and some keyboard skills classes. I quit school like three times, I think. I spread my doctorate out like piecemeal, I really did cut it up. And in order to make ends meet, I was writing a lot of commercials. Doing music for radio commercials and t.v. commercials because that was a big paycheck that even though it was far between, they were big enough to sustain me while I was living very poorly.

R: What were some of the commercials that you wrote music for?

C: They were all hospital commercials. I wrote incidental music for hospital commercials. Music that would be going along – music that the Saint John Medical System wanted to be their theme or the City of Hope in L.A. wanted to be their theme. So I got into that because my father is in an advertising agency. Their ad agency, which he owns with his partner, had a healthcare niche, so not every father has a composer for a son, and he knew it

would help me out, because I was living hand to mouth. It was nice and very interesting. I did that for twelve years, sporadically, in and out, for twelve years.

R: So, when did you finish at Michigan?

C: I finished at Michigan, finally finished in April 2004. And got my official degree in August 2004.

R: And when were you hired at Colorado, immediately thereafter or was there a break?

C: I was hired to start in August 2005. So I graduated in 2004.

R: And in the interim period?

C: In the interim period I lived in Steamboat Springs, Colorado, and wrote music there. And I also lived at home. I was living in Chicago and Steamboat, back and forth, and rented a couple of places in Steamboat. I wrote a lot of music there, chamber music, this trickle of commissions that were perfect timing.

I went to New York City and played chess for a whole month when I was down on my luck. When I felt really down in the dumps. This was April and May of 2005, just before I even heard that the University of Colorado was looking to hire me. And I was ready to give it up, I was ready to give music up. And I got that far with it. Let's obsess about this now. Let's turn the page and have this happen. So, I'm so glad I didn't do that.

I took an interview with the University of Houston and went down there for a gig and didn't score it. And was thankful for that. However I didn't hear from the University of Colorado until very late. I only heard in May that the Dean called and said that they wanted to see if I would be willing to come and teach in the Fall of 2005. And the University of Colorado was one of seven schools I'd applied to for an appointment in the Fall of 2005 and it was at the very top of my list. It was the school I'd wanted to go to. I was lucky, very, very lucky.

R: Congratulations. So, when was *American Child* written*?*

C: *SLALOM* was written in 2002. *American Child* was written in 2003.

R: Had you already done the transcription of Slalom for winds when you wrote *American Child*?

C: Yeah, the wind transcription was 2002.

R: Did you experiment or try some other works for winds before then?

C: No. I hadn't written a wind ensemble piece.

R: So, *American Child* was the first work intended for winds from the outset?

C: Yes. I had a short score of *American Child* that was from a piano trio that I wrote. That movement, from Mickey's Trio, *Piano Trio No. 1*, is called *American Child*. That was written just after Slalom for Winds was arranged. I had this commission to write for a consortium of nine universities and high schools and I took that movement from the piano trio as a short score and blew it up. That's *American Child*, the slow movement from that piano trio.

R: How did that consortium come about?

C: Stuart Sims is a great friend who at the time was director of bands at CSU-Stanislaus. He performed *SLALOM* and he organized the consortium for *American Child*.

R: So, that transcription of *SLALOM* was a spark for your other wind writing?

C: Yes, doing *SLALOM* for John Lynch at the University of Kansas was a spark. He knew that he was going to get a transcription. He had heard the London Symphony recording of *SLALOM* for orchestra and we agreed that it would be smart to do a band transcription of it. And that was the first band anything that I had done.

R: Was that his idea?

C: His idea was for an original work to be delivered to him in two and half months based on our phone conversation. Since I had not written a band piece, and even if I had, I would not have accepted that time span. So, I suggested to him that I have this piece. You like it. The reason you're calling me know is because of that piece. He was thinking "I like this guy, I want him to write an original." And I said, why don't I just write *SLALOM*, for band?

R: Was it initially difficult to write for winds? What challenges did you face?

C: Yeah. I had leaned heavily on string writing for orchestra and I had to rethink the whole ensemble and I had to find a way in *SLALOM* to write that string lick for winds. I pushed through it mentally. It was all virtual for me because I hadn't had any experience writing for winds and I hadn't heard a lot of band pieces. It was just using an orchestration muscle that wasn't used very much. I was trying to import my strength from orchestrating for orchestra.

I was going on faith that I could hocket the clarinets to do this lick, and do it as an etude for a very long period of time. I did a very thoughtful job with the orchestration of *SLALOM* for orchestra that all I needed to do was translate it for

winds. I didn't have to rewrite the piece. You know, *American Child* was a piano trio. That's rewriting a piece for winds. Pacing for three players and pacing for band is different. Bars have to be added or taken away. Phrases have to be redesigned. All that kind of stuff. There was not a lot of redesigning for *Slalom*.

I had to go on faith that it would translate for winds and I knew how to write for winds in orchestra music, so I had to just take out the strings and bolster up the winds. So, Stewart heard that and commissioned *American Child*, so I decided to do a transcription of the piano trio. That had to do somewhat with the timeframe. I'm not the fastest composer out there, by a longshot. When I have a very truncated commission schedule for a piece, I don't want to go late on it, so I have to figure out at the start of it how I'm going to make this happen.

So, I've stolen from myself. There's a stolen movement in *Four Factories*. But only one. Actually two, but they're so different that I end up having what I call sketch-books. Like they end up being in sketch-books of stuff, that are written in the past that can translate maybe to winds or can translate to orchestra. Smaller stuff that's written on two staves or four staves. It's a notebook of music.

R: In the scheme of your wind writing, this brings us to *Wrangler*. How did it originate?

C: Actually, you're going to find that of all the band music I have, the majority of it is transcription. So, *The Wrangler* was a reworking of the last movement of the *Triple Trombone Concerto*. And it's a gallop. And so *The Wrangler* is a gallop, but it's so different because it's been lengthened and it's been exploded.

R: It was in *Wrangler* that you used the enlarged instrumentation.

C: Yes, exactly.

R: Which then brings us to *Four Factories*, and wanting to do a work on a larger, grander scale.

C: Yeah, that's right. My discussion with UNC-G and Kevin Geraldi, in particular, was that I would write a piece that was not six to ten minutes, but I would write a piece that was thirteen to eighteen minutes. That meant to me that I would be writing multiple movements, because I don't write music that is more than twelve minutes long that is straight through. At least not yet. They gave me carte blanche, and I said to them that I just wrote a piece – I was referring to *The Wrangler* – that was six flutes, six clarinets, six trumpets, and the rest of the band standard scoring. They were like, go for it, we have those forces.

And so I took the opportunity to write something explosive, something on a grand scale. Even though there are four movements that can be performed separately, I do kind of feel that all feel together are the sort of grand band stroke for me. So that was where that came out of.

The Wrangler was commissioned by Ramiro Barrero at James Logan High School in California because of Stuart Sims. And Stuart Sims, who commissioned *American Child*, was good, good friends with Ramiro. And then, *Four Factories* was commissioned because Kevin Geraldi heard *SLALOM*.

R: Was there some relationship that you had with Kevin Geraldi?

C: Kevin and I were at the University of Michigan together. He was a conducting student under Bob Reynolds and I was there as a composer. We were there at the same time. As was Stuart Sims. The friends you make in college, they grow up at the same rate you do and they can become your greatest advocates. Kevin Geraldi, we knew each other but I never did hang out with him. Then I got this cold call from John Lynch. And then another one from Kevin Geraldi. And he was reminding me of who he is and who we were at school together. I hung more with Stuart Sims, and Stuart and Kevin know each other very well. They came into this money at UNC-G and he had the opportunity to call the composer of his choice, and he asked John Locke, the DOB there, if he could call me as he pressed play with the London Symphony *SLALOM*. And he said, this guy just made a band version of this piece, listen to this piece. Can we throw him X amount of dollars to write a piece. And they commissioned David Dzubay the same year. So, that was fun. That was great. That was a great phone call to hang up on, and to think in a year from now I have to have this big thing, this big explosive piece.

R: And so the only requirement they gave you was on the timing?

C: The timing and then we talked instrumentation and agreed right then and there on that first phone call.

R: But the instrumentation was more your idea from your previous experience?

C: I lined it up for them and they said yes.

R: And those were the only requirements?

C: That's it. Yes, that's it. They didn't say they wanted anything multi-movement. They didn't say yes or no to that. They didn't say they wanted…. It was not going to be a concerto. We talked about that. In fact, that's when I first started planting the idea in anybody's ear about doing a piano concerto. I thought back then that I already wanted to do that.

They were like, no, it would mean that you would have to come out. That would mean we can't just play it on a whim. We can't just take it around. We have to have a soloist, that kind of thing.

You know, it was a good smart choice for them, because that's what they wanted. That was the one constraint because I was pushing to do a piano

concerto. If I wrote a piano concerto for six, six, and six, it would have been a problem. A real problem. It would have been for amplified piano. As it maybe should still be.

R: Sounds great in the hall. What do you think is next? At this point in time, you've done *Concerto Logic*. You've done *Four Factories*, the large scale work.

C: *Hold This Boy and Listen*

R: Which is a grade three.

C: And the *Serende*, which is a ten-minute grade six slow piece.

R: What's another goal in this vein with winds?

C: With winds, my goal is to take a break. And do more flute concertos. I want to get back into orchestra. After hearing Bill Bolcolm's *Symphony*, I would want to do something along the lines of what Bill Bolcolm just did. I could keep writing band pieces about the size of the *Serenade*, ten minutes, that kind of thing. Or six minutes. Or an occasional twelve-minute piece. And do concerti, which are nice and fun to write, and actually fun to write. But, man, my goal for winds is to do a *Four Factories* that is twenty, twenty-two minutes long. We were talking about symphonic size. However, I don't think I'll call it first symphony, we'll say.

R: Dr. Pann, you have mentioned in program notes related to *Four Factories* that you had been reading *The Fountainhead* by Ayn Rand. What influences did *The Fountainhead* have on your mindset and the compositional process?

C: Well, this book by Ayn Rand. I read it before writing *Four Factories*. It didn't have an absolutely direct influence, however, I knew after reading *The Fountainhead* that I wanted to write a piece of music that was a great achievement, or Man's Greatest Achievement, or a symphony of skyscrapers. And, I ended up taking the inspiration I had, back when I was reading that book, and transporting it to the time I was writing *Four Factories*. I read *The Fountainhead* in the late 90s. I wasn't reading it exactly at that time, but what it did to me was it planted this desire for this piece and then I took my memories of *The Fountainhead* and what I thought of that book, and put that to use, to write these sort of mechanical, city sounds, jack-hammering, as if I was building four skyscrapers, but they became factories. It's just the way art is, the way music works.

R: What did you think of *The Fountainhead*? You mentioned that you took your feelings from that time.

C: It was extremely inspiring, extremely inspiring for me. It's about a man who creates something out of nothing and creates these huge designs. I was immediately translating that into what it would be like to write that into music, directly inspired by those concepts in Ayn Rand's novel. Not Symphony for Howard Roark, nothing that direct, nothing that specific. But the book made such an indelible mark on me, kind of like when you look at a light and it just stays with you, in your eyes. It stayed with me until I had the opportunity to write this commission for *Four Factories* in 2006. This was going to be the piece I decided to put the inspiration I found in Ayn Rand's novel towards.

R: You just mentioned that we should not compare too directly with Roark, the main character in *The Fountainhead*, but if I may ask this: He is a lone figure, with many antagonists. His works didn't fit what was the accepted norm in architecture. Did your inspiration come from his life or the act of architecture?

C: Good question. Howard Roark was dichotomous to the herd mentality. That is one of the inspiring facets – that notion is what made its mark on me. Not so much that he was an architect, although I appreciate architecture. But the fact that he had so many people against, as you say, antagonists. I didn't feel that I was Howard Roark, writing this piece, like I was writing against the grain. The concept though, is that I think that Howard Roark represented something for which the other side of that coin is dangerous, is deleterious to society, to culture, which is the herd mentality. Everyone swimming along the stream. Howard was swimming against the stream with such determination and pursuit, it actually forged Ayn Rand's objective views while writing this book. It's a central theme through this book. I used The Fountainhead reference because I want to draw on what has become so inspiring to me. The architecture in this book The Fountainhead actually could be the more direct link to the Four Factories if you think of these as factories instead of skyscrapers. Just bridge that gap. I was writing music that's supposed to sound like a city or cities, not pretty sing-song-y melodic works, but city music, hard gritty music. People working on foundations, window cleaners, jack-hammerers. A piece of music that is not supposed to sound like it has come from nature. But it has come from our hands. Create a brick, chop a stone, design a house. *The Fountainhead* made such a mark on me that I transported that to the writing of *Four Factories*.

This was my Man's Greatest Achievement work.

R: Is there any relation to Peter Keating winning the contest for the insurance building that was the best ever?

C: Growing up as a composer I've known Peter Keating's in other musicians, artists, and composers. We all come across our Peter Keating's in people who have won things. And hard life-lessons are learned in that regard. One thing I've learned is that the world does not judge one on his merit. That's

why Howard Roark and Ayn Rand's subjectivism is so attractive to me, because she's so idealistic and so pure. Without that we by tiny increments start to fall as a culture. We just get beat down and succumb and sacrifice too much. It becomes dirty and everybody sort of slumming.

R: Many of Howard Roark's structures had poor endings. They were constructed but then the occupant went out of business, or they were not received well by their owners, or were made fun of. Your four movements in *Four Factories* each end with a winding down, or destruction of the machine, or breaking of established motives. Is there any symbolism there?

C: No symbolism that I can think of. That is a deep-cutting question. If something like the first movement of *Four Factories* is so brightly colored and so buoyant and joyous, it makes sense to me that it doesn't wrap up at the end with a bow and ribbon. It's like a light that burns out. And the second movement is like a light that burns out. It's had its glory day. And I don't believe that life is that packaged.

R: There's something less than optimistic there and I'm curious to find the motivation.

C: Well, I think when I'm in it and writing the music I make a decision on how to end something, and whatever at that moment caused me to decide that – I wish it was more webbed and intertwined and connected to symbolic reasons and deep thought-out reasons for being. It comes to this – it's what the defining characteristics are for those of us who do this.

Donald Grantham would have ended the first movement of *Four Factories* differently. It would have probably been brilliant, but different. That's what separates us. Or whoever, Frank Ticheli. He would have ended it differently. Even if he had read Ayn Rand and was inspired by this or had the same upbringing or the same surroundings.

R: Do you think you were seeking to find balance? If the movement is happy and bright, then the ending is not? Is that for balance?

C: I don't know if balance is the right word. Each of these movements ends in a similar way and you've pointed that out, and that's a unifying characteristic. Imagine blowing up a balloon and you see what happens when you let go of it. So, that's what happens at the end of these movements. I did not put a five-one at end of these movements. All I did was blow up this balloon to varying degrees to see if it was going to pop, sort of like the cork that pops, and then I let go of the balloon instead of popping the balloon. That's mass capacity of sound and color and brightness for these pieces and then it sort of fizzles like a sparkler. That's how I decided – I made a conscious decision to end these movements like that. These were not going to be movements with brick-walled double bar lines. That's not going to happen. This was my design

decision. The first movement ending with the factory woodblocks. The second movement ending – we can get to that.

R: So, you also mentioned that you were reading a biography of George Antheil, composer of *Ballet Mechanique*. What influence did that have on the composition of *Four Factories*?

C: Well, a lot of that biography of Antheil was about how he was a bad-boy and how he really didn't care what audiences expected or about being nice and charming in social circles. He just did his thing and was an extremely talented guy who played the piano with incredible vigor and incredible technique.

His music was about the industrial revolution. It has buzzes and whizzes and tools and things hitting each other. You can see why that is congruent with my thinking of the inspiration for *Four Factories*. I happened to be reading it as I was reading *The Fountainhead* back in the late 90s. It was the perfect auxiliary book to read with Ayn Rand's novel. It was watching a composer be this way and do these things and experiment with instrumentation.

R: In *Ballet Mechanique*, Antheil makes use of various keyboard instruments and pianolas and percussion. We hear a lot of driving rhythms and constant motion. Do you see a relationship with Four Factories?

C: Yes, there is a comparison there. Definitely, in *Ballet Mechanique*, percussion and rhythm is central to the piece. In my wind ensemble works, the percussion in this piece is the most important of them all. It is an important driving force.

R: You studied with Joseph Schwantner, and you are familiar with …and the mountains rising nowhere, in which he uses a lot of innovative percussion techniques, water gongs, and extended techniques in the wind instruments. Where you influenced by Schwantner in that way?

C: Only subconsciously at that point. By 2006, I wasn't listening to Schwantner everyday like I was in 1991. I studied up on Schwantner and knew about those techniques and instruments. But Chris Rouse is of that same hue of influence. They go together for me, at that time in my life. This is a dissemination about 15 years later.

R: So are you saying that Rouse and Schwantner opened your eyes toward the use of percussion?

C: Yes, absolutely.

R: How would you describe this use of percussion?

C: This use of percussion is integral as opposed to elaboration. These are not triangles hitting at the right spot and then bars and bars of no percussion. Like you see in Debussy's orchestral music, it's elaborative, it's decorative. This is integral and is a sign of the modern way of writing percussion in wind ensemble works. It has become integral. You no longer just have three lines where one player has tambourine, one player has *grand casse*, one player has the triangle. There are huge percussion orchestras going on now behind winds. That's what it's like in Four Factories. It's absolutely integral. I treat it like the winds.

R: You just mentioned the percussion orchestra. Do you treat the three sections each as choirs: woodwinds, brass, percussion? As three separate choirs?

C: Yes, I still see them as separate choirs. Winds, brass, piano and percussion. The way I use piano in *Four Factories* is both tonal and percussive. Actually, I think of the saxophones in my wind writing as being members of both wind and brass choirs.

R: And back to George Antheil.

C: Honestly, though, anything more that we speak of about George Antheil is going to be tangential. He is receded into my sub-conscience.

R: Ok, he uses a siren in *Ballet Mechanique*. You use a siren in the first movement at the climax. Any relation?

C: Perhaps, but the reason I use the siren is because of other works I've heard it in.

R: Such as?

C: *Krypton* by Michael Dougherty. He uses siren there. I use siren in *The Wrangler*. I can't remember the other pieces, but whenever I hear siren it's always a modern piece and it's always so distinctive and very in your face – you can't lose the siren. So I decided to just throw that in. Siren is a city sound. It's a street sound and at the climax of the first movement it's exactly what needed to be there, a siren. It was location-specific, it wasn't so much channeling Antheil.

R: Another percussion instrument called for is the use of bamboo sticks, rute sticks. What's the reasoning in choosing those?

C: I like the sound of those. I started using rute sticks after studying the music of Chris Rouse. Because he uses rutes extensively in so much of his writing. So I basically stole an idea to use those sticks and I've gotten used to them. They've become part of my percussion orchestra in my music.

R: Last question here about Antheil. He has been described and you described him as well as a sort of the bad boy of music. I notice a t-shirt hanging near where you are sitting that says “Too Tough To Die.” I wonder if there is any self-comparison with Antheil with his role in the world of composition and your role in the world of composition?

C: Well, Antheil was a bad boy at a time when bad-boys were noticed. And they’re not so noticed any more. Everybody is writing music. But, I am definitely not a bad-boy. I hate to spoil your…. But, this is a bad-boy piece.

R: Already, we’re discussing sirens, we’ve got trombone glisses that scare the audience.

C: At the end of the second movement.

R: Yes, and other sweeping gestures and dramatic effects. I still think that the heralding figure in the second movement also serves as an interruption. Everytime I want to get comfortable with the lyrical figure, the sweep comes back. Please elaborate then, in light of some of the gestures in Four Factories, on it being a bad-boy piece.

C: Well, ok, this piece, to use a cliché, this piece takes no prisoners and it pulls no punches. I have seen people jump out of their seats at the end of the second movement more than once. I have seen that happen. As soon as you think this gets pretty or you slip into a groove with the pacing of the music and the texture, it will throw you off the horse. You have to be aware of it or you won’t see it coming. That’s what that does.

We’re here and we’re here to conquer. We’re just going to take Rome. This piece tries to do that. In very bold stroke, this piece, those are the properties it contributes. It doesn’t have these moments of repose that we’re used to. Or let’s just take you out with a phrase so elegantly, we’ll fade you out. In order to pull something like that off, that doesn’t turn listeners off, the material has to be attractive enough that you stay with this piece. Otherwise, you’ll be turned away. If the material is not attractive enough, you can say cool or whatever. If the material is not attractive enough, I won’t even listen to this piece. Because the piece is rude, that’s all, it’s just rude.

R: You had mentioned before a string technique book that you had written. I’m trying to recall the name of it.

C: Yeah, *Tributaries*. *Tributaries* is a piece I have that is a set of string methods. It’s a set of six or seven movements of string duets, and they were written for the Rivers School in Weston, Massachusetts, for kids.

R: You wrote them?

C: Yes. And there are three versions. The violin duets, the viola duets, and the cello duets. It's the same music, simply arranged for the three duets of instruments. Each one of them had a specific reason for being, and I specify the method at the beginning of each etude. Extended pizzicato endurance. Playing with the full bow all the time. That kind of thing.

One of these Tributary etudes was this thing with sixteenth notes going up and down, up and down, for two instruments in F major. And basically I took the harmonies from that etude and remapped them into the first movement of *Four Factories* and letter B, which is when the factory proper begins. And so letter B and its consequent, letter G, is the same harmonic landscape as this one Tributary. I called them *Tributaries* because it was for the Rivers School.

R: This leads to a question about the key relationships among the four movements. Did you preplan the relationships?

C: No, I did not preplan those relationships.

R: Is there significance to you in those relationships?

C: They are third relationships, just like there is a third relationship within the third movement. However, the first movement is in F and the second movement is in B minor. That's a foreign relation. Very, very distantly related. I did that between the first and second movement actually because it sets the tone for this piece. You launch into that second movement and there is next to no relationship between the first two keys. The first movement ends in G minor though, and it sounds like home. You go right to B, and that's a third relationship. It's really just relating movements by thirds instead of by fifths.

R: Back to George Antheil, the bad-boy. During what period of your life where you most exposed to his work?

C: In the late nineties.

R: And how old were you at that time?

C: Oh, I was in my mid-twenties.

R: And so, that had what influence on you personally?

C: It was funny. I had dreamt about being Antheil. If I was alive when he was alive in the early Twentieth Century I would aspired to be George Antheil, quite honestly. That's as direct as I can be about it. Or Prokofiev, that's a bad-boy. Absolutely.

R: Do you see these people as rebellious in society? Or that their music just didn't fit in? Maybe if we go back to the Ayn Rand concept, that their music didn't flow down the same stream as everybody else?

C: That's it. That's it. And I appreciate that about them. I admire that about them. *Four Factories* is as bad-boy a piece of music as I've yet done, when you listen to it front to back. You listen to it enough and it sort of blunts. If you listen over and over to any piece of music it starts to blunt. But for a first-time listener this is as brash as it gets for me for fifteen minutes.

R: Antheil, with his use of propellers, pianola, and siren would be non-traditional today, and much more so in the 1920s.

C: I put Antheil in with Varese, they are very different composers, but they're off the main highway of art. The main highway is quite wide, but they're still off of it.

R: So, as we take a look at the second movement, we had discussed the b minor tonality and driving sixteenths as being Baroque characteristics?

C: Yes, yes, yes yes. That's how I think of it. You look at the shape of the driving sixteenths and that's a very Baroque style. With a melody going over this foundation. A melody that is more step-wise than the actual accompaniment and very clearly in contrast to it. In fact there is a third line which is the walking-down bass in the fourth bar that always accompanies that. There are three voices going on and they are very Baroque.

R: So this is suggestive of continuo?

C: Yes. It's like an *ostinato* or a *passacaglia*, a fast *passacaglia*, or a ground bass.

R: This opens with a heralding figure in a three-bar introduction. This figure returns as part of the first theme that starts in bar four. Do you see this as an interruption or some sort of announcement?

C: These thirty-second-note thing is an announcement to herald in the two-bar phrases, which start in bar four and five and are echoed in bar six and seven. Then eight and nine are echoed in ten and eleven. These are echoes, there is nothing different other than just a different instrumentation.

R: What about an antecedent, consequent relationship?

C: I would say that four, five, six, seven, eight, nine, ten, eleven are an antecedent and the consequent is twelve, thirteen, fourteen, fifteen. It's a quick answer and then the two-four bar at fifteen is truncated. It is a truncation of the

phrase. We are then interrupted by what we're used to hearing, which are the questions or the antecedents. Back now into two-bar phrases that gets us into this cowbell jam. This is a miniature rondo form. Twelve, thirteen, fourteen, and fifteen are an answer to the rondo. The rondo comes back for four bars. The C section occurs at twenty all the way through twenty-seven. There's a different answer to this gothic theme or pillar.

Twelve, thirteen, fourteen, and fifteen is a pretty answer. Twenty through twenty-seven is a little less pretty and a little more demanding. It is basically a trumpet song. It is a pop tune because of the harmonies. Major seventh chord harmonies and some minor seventh chords harmonies. It's that meld of harmony.

R: And syncopated bass?

C: Absolutely. This cowbell is marked "hold and whack above head, real glam." It's like something that the band Poison would do. Or the Blue Oyster Cult would do. Then we're back with the question or the rondo theme at twenty-eight and then the echo at thirty, thirty-one. And even thirty-two, thirty-three are still that theme, but just rescored without that thirty-second-note announcement. And then here's your echo at thirty-four and thirty-five.

And now measure thirty-six is the same answer as twelve. Scored a little different and a little higher in the heavens. It just keeps going and it becomes a little longer and it is extended. The extension is forty and forty-one, unlike at twelve where there is a truncation. And then at forty-two we hear this for the last time. At forty-two, the announcement happens and this event occurs from forty-two through forty-six. This is a huge dominant sound. We're coming to the end. We feel it in bar forty-three. We get the rondo theme but it's truncated. And then we get an interruption. This is a huge interruption and it's part of the rude character of this piece. We were grooving along with this movement. It's a short movement and we're given enough time to start to slip into a groove. And forty-seven is actually a breaking of the suspenders of the piece. It's like a train that was derailed. Nothing more than that. Pitch is not an issue here. I had to just design something that sounded like it was caving in on itself. In bar forty-six it gets let go like a rubber band or a slingshot. That's exactly what this is: a slingshot moment or the derailment of a train. It dies down over that entire page, from bar forty-seven to bar fifty. A fading away or a dying away like we've talked about at the end of these movements. And then we have what I consider the coda at fifty-one of this movement. It is a very watered-down version of the rondo theme. You don't get the ribbons of thirty-second notes heralding this thing. You don't get the melody. It is deconstructing this movement. All you get is the baroque theme and some sighs from trumpets and saxophones and trombones. Just building up that stone-mason temple just a little more but having this baroque thing go through with timpani. And then a flourish in flutes that gets us way up to the very top of this building. We start at the bottom and get right to the top. And the pianist is charged with taking us to the very end. And just like the derailment in bar forty-seven, this is another one of those slingshot moments

where it's like the last dying gasp of this rondo. This explosion at sixty-three all happens…what is the duration of this movement?

R: It's 2:40.

C: So, it doesn't allow you to get comfortable. It allows you to groove. There are some grooves in it and some cool-sounding poppy things and this tune is step-wise, it's melody. It's sporadic and melodic at the same time. It's got as much as you can put inside a theme. There's a lot in two minutes, forty seconds. A lot of we're going to start grooving here, but I'm going to be punched and slapped in the face as well. So, this is the "baddest" movement of the whole piece. Really, it is. Honestly.

It's so short. It's like a handshake that doesn't last.

R: And every time something gets going, it's interrupted.

C: Yeah, absolutely. The short score for this movement. There's a short score for the first two movements of this piece. These two came out of… This is the Limbo, a complete reworking of the Limbo movement from a string quartet called Love Letters. My first string quartet is four movements and the Limbo movement is the third movement. And I took that Limbo and I reworked it for this movement.

R: Is the thematic material intact?

C: Yeah, the thematic material is intact.

R: Is the form intact?

C: Yes. There's not a lot different. It's completely rescored but bar forty-two to the end is different in the band version.

R: So, the third movement, At Peace, begins with clarinets and has a sort of hymn-like feel when the brasses enter. Is that what you were intending?

C: Well, first of all, this movement had to happen right now. I'll talk about that as the second thing. This grid right here is going to be the palette on which the colors happen. Pretty much throughout the movement there is a canon, and the length of each unit of this canon was the length at the tempo we are at, quarter-note equals 132, that I believed a clarinet player could just play very easily without losing air and without losing concentration. It's a perfect little package. Then I staggered it so it's canonic, so it sounds like this thing that is one instrument to another.

This hymn, is not really a hymn, it's just a setting up of the tone of the piece. We're doing this with chords that sound very lullaby to me. We're cradling

the listener in these harmonies. It's all introduction to A. It's ominous at the same time because it's just going from B-flat to D-minor six-four. It's a neighboring six-four, not doing anything functional. It's a stagnant wall of sound. And it gets a little more elaborate between 10 and 11, 12 and 13, and then a little longer starting at 16.

And these harmonies start to go places with actual basses and extended chord functionality, all of which have these notes in common. These are all chords that have two common tones, which is a little challenge and a little bit of fun to start out the introduction. This is beautiful sort of jazzy harmonies, all in service of A.

Here is an interruption right before A. We've been in B-flat all the way, even with all these extended chords, and now all of a sudden we interrupt with these notes: C, E-flat, and A-flat over the D, in the canon. D is the lowest note in the canon. And it serves to modulate quickly, almost crowbar-like, to G major. We have no idea this is coming. For me, that's like a rising sun. Very evocative of another beam of light that we had no idea would show up.

R: And the material moves upwards.

C: That's right. We get this melody, quote unquote, and it's marked "with great beauty." It's hard to call that a melody, it's just an arpeggiation. But it is, if there's anything, it distinguishes itself from the canon, which is a stagnant undulation. It's a line that has shape, some contour to it. And the hymn in the brass and low winds, is still there, but it actually now serves much more functionally harmonically. So we now have the canon that's still going, we have a melody that's soaring over it in flutes, and oboes, and picc, and some saxophones. And we have the low brass harmonies.

If you want, we can go through and count how long each phrase is. Actually we should. I know for a fact that this is an eight-bar phrase, not two four-bar phrases.

R: We've got all this overlapping, so that makes sense.

C: Exactly. Maybe it's a seven-bar phrase with an eighth bar extension, actually. Quite honestly, that's what it is. It's a seven-bar phrase with the eighth bar at the *poco ralentando*, which is bar 32, that is the extension. And then we start again. It's a five bar phrase. These are irregular barrings for phrases. Five bars to B. Again, we didn't see this coming until the bar before B. Just like the bar before A we have an interruption of this new harmony to get us from G major to what…

R: A-flat major. And even then, you set this up with a trumpet fanfare-like figure two bars out.

C: This is a non-functional interruption. It's not a harmonic interruption.

R: But it breaks the canon.

C: It does break the canon. But then the canon takes over again at 36 in the clarinets. Somebody's got to have the canon at some point. Yeah, I stop the trumpets on their canon. And I do that actually, you know why I do that? This is very logistical. At bar 36, before we get to B, where I am already planning for the trumpets to be integral, I don't want to have them playing right before the modulation. So I get them out of it, to set that up.

Now, the canon at B, we're now in A-flat major, so how's that related to G? People have said, "well you just went to the Neapolitan." Yeah, but it's really a distantly related modulation, just like B-flat to G major was. G major to A-flat major is.

And so what's happened to the canon now? The canon has actually become something. It's a re-orchestrating of the canon, it's decorative in a different way. And it starts to take a character that it didn't have before at bar 41 and goes all the way through. It becomes almost melodic at bar 41. As this tune, the main tune, kind of wears away. The main tune lasts three bars and is taken over for what is essentially another five-bar phrase. Then 43 is a sort of…. We've heard too much texture. We've heard too much texture. From the ceiling to the basement is full on these pages. So I had to take away and we have just clarinets. This is actually foreshadowing of the heralding clarinets at the end. This happens at that same point, but over there, at the end.

That fermata at bar 45 brings in, this is actually the main theme. That fermata at 45 brings in the transition, a four-bar transition, a regular phrase transition to C, which is sort of the nougat of this candy-bar. It's the inside, the innards of this movement. This different material, contrasting material of this movement. Again, we're kind of at the top of this rainbow.

R: You seem to emphasize piano and percussion. And the heroic theme?

C: Look at the shape of the canon, and how many slurs are everywhere and all the phrase markings. What's different about this?

R: It's articulated.

C: It's bullets. And it's all repeated notes that change. So that's part of the contrast here too. And because I have that very distinct contrast, I have the heroic theme in the bassoon and horn that goes. It is in stark contrast to these bullet shots, or hammering all the way. I love using hammering. Because it gets your point across, real quick. I put that in the second movement, in the piano part, too.

R: Particularly since you're the bad-boy.

C: (chuckles) Yeah, the pianist in *Four Factories* is a percussionist. It's part of the choir. I had to tell Paul in rehearsal. He was playing it like a

collaborative pianist. I don't like having to say that to people because I'm asking them to play their instrument in a way they've not studied to play it.

This is a long phrase. A seven-bar phrase, with two bars, eight and nine, which is 57 and 58, that are extensions to this. Now, this is the retransition at bar 59. This is actually the largest that this movement gets, between 55 and 58, this is the pinnacle or climax of this movement.

R: Now, the staggered entrance we discussed in the second movement, and the one we're pointing to in the third, are these at all related to the opening of the first movement?

C: Yes, great, very much so. And even in the first movement, there are staggered entrances in the middle that herald or hearken. There with the saxophones in the first movement is a microcosm…

R: That's 135 or something.

C: You find that everywhere. I'll stack a choir, and that happens at the very beginning of the piece.

I've noticed something also at the very beginning of the piece. The A that the trumpets come in on, that's a hard note to catch right on. A hard note to hit right on. I didn't realize that. I thought F was the hardest note, but no it's A. I'm noticing every time I hear the first note of Four Factories, it's cracked. It's got to be that note. You learn these things. This is how you learn, and I won't do that again.

R: So, measures 58 and 59 in the third movement…

C: Retransition, 59 through 68, with staggered entrances, and it's a big, big push, with a tri-tone substitution in the harmony. It's an F dominant harmony but with a tri-tone substitution of a C-flat in the bass. Very great technique used in jazz to get to B-flat major here. This is like a sunrise or the world has opened up. When I hear letter D, it's like my ears have popped. I get this beautiful B-flat sound. And now I add some decoration into it that we didn't hear before. It's the opening of the piece again, basically, but it's decorated with the chimes and glockenspiel in canon. These sort of hymn-like chords that are stagnant still, but now they are a little less ominous-sounding. We've heard them before and sort of enshroud ourselves in them. This is one extended phrase, D to E, is one whole phrase to E. E is the tune now, that we heard at A, but it's not in G it's in B-flat, which is the key proper. It's the proper tonic key.

R: Designating the recap.

C: And so it is the recap, and we're hearing it in the tonic. And I'm decorating it again, this time with marimba and vibraphone playing on top of each

other, these beautiful harmonies. Very wet, blurry pedal in the vibraphone to give a texture.

R: And double notes?

C: Yeah, but here honestly it's more of a technique of playing the instrument. The double-noting is not as functional as it is at C.

We have a sweeping melody at E, a six-bar phrase at E. And a quick, huge, bel accelerando to this interruption. Joyous, heralding clarinets. These were foreshadowed back before the first transition at bar 43. This is without bass clarinet. Almost all of the clarinets here are being asked to leap over the break. That's fine but it was a point of worry for me. It works.

R: Did you want a certain degree of awkwardness as this winds down?

C: It's like a machine that a spring broke and it's still pretty but it's a little quirky now. Something's a little off.

R: As opposed to being smooth and precise all the way to the end.

C: That's the tempo that does that. If I didn't have an acceleration and just did this canon, it wouldn't work. Not for me. It would be too long and I wouldn't be able to get through as much harmony as I am able to now at 172.

R: Plus, you raise expectations by raising the tempo.

C: Yes, well sure. This is a soft interruption, but technically it's a huge interruption. The canon is a grid that is maybe going to go to tilt. And then comes back. This is the dominant and here's the tonic. It just happens, a winding down, almost like we're losing juice in a battery.

Something interesting to see here, to do a chordal analysis here of these chords dying down. Instead of V-I or instead of the tri-tone substitution, which would be C-flat to B-flat. I do a different technique which is to have the dominant of B-flat, so F dominant, without the fifth, with no C. And the third scale degree in the bass, D below F, A, E-flat, F. That is a Stravinsky harmony. If you put harmonies like that together you start to channel Stravinsky for the dominants. And there's no third in this chord, it's just a tonic and a fifth. I don't need to hear the third, not really interested in giving you that much.

R: How do you describe your use of harmony? Is there any theory textbook that you subscribe to?

C: A theory textbook, that's a good question. I teach from one, but my use of harmony comes from all the study before and all the music that I've looked at in the past.

I write what sounds good at the piano. I'm going to put a constraint on myself to give you an idea. My harmonies have to leave home base. They have to go just far enough that they either get right to the point of no return and I bring them back, or they go just past the point of no return and I am then forced into another area or realm or texture. I'll take it past that point, or I won't, but they have to go. They can't just stay at home and just do one and then some cool chord and then one, some cool chord and then one, some other cool chord and then one. I'm not that minimal. There has to be shape to my harmonic arc. And usually it's going somewhere, just like my melodies are going somewhere.

That's organic to me, musically.

R: All right, on to the fourth movement. Why the title "Mercurial, with great precision"?

C: Well, because there are a lot of different characters in this movement. It's very mercurial and moving around. I just wrote a piece called *The Mercury Concerto*, and that's very mercurial too. But, I don't use any of this music in that piece and vice versa.

It's because there are several different objects in this piece that get treated and sometimes thrown into each other, and thrown against each other. And one object is the tattoo here, the percussion tattoo that happens.

R: And why do you call it a tattoo?

C: It's just because it keeps coming back and you can rest assured that you're probably going to hear it again. I call it a tattoo because that's what I've come to call the snare drum in *Bolero*. It's a mark. It's always there.

Here's another object in bar four. These are macro-phrases that try to do a lot of stuff and then you get the tattoo again in twelve. There's one big phrase on the first page. Don't concern yourself with actual meters at that point, it's just a phrase. The two phrases before A, the first page and then the second and third are a phrase.

Now, here is an introduction of some material. And we have no idea at this point at A what this means and how important it is. This is all fantasy. At this point this is less formal and more fantastic. I have no idea where it is going. In fact that's how it was being composed. I didn't know what I was going to do with this material, quite honestly. Through this weird little canonic stuff here.

As a performance edition, from A to B has to be played so confidently. It's so difficult that nothing about it can be timid. Otherwise you're going to lose all this stuff. Every composer wants to hear every note he's ever written.

Until finally we get to bar 54 and we've heard this before. It's evocative of something. Wind, more wind. We've seen this before in this piece. And then this is an extension. It's like a tail on an animal. It just flanges.

This material is different. A and B are completely different. All of this stuff that happened at A has to somehow come back someplace. And then you get the romp. This last movement is a real finale so I kind of throw the kitchen sink

into it. This material at B is about as four on the floor as you're going to get. This is as rock and roll as you're going to get.

R: Where are the characteristics that you have described as Mahlerian?

C: This big texture. What I mean by Mahlerian sweeps in this movement, that big band sound, which is kind of what this is…

R: Which is the oom pah thing at B?

C: Oom pah thing that keeps going. It's kind of a big motor band. Then all of a sudden we come to Mahler Eight at letter C. This is an interruption. C is an interruption. It's not the big sweeping theme. I call it heroic but that's just a localized way to describe it.

This is an interruption. It serves as a transition. With these lip trills. These trills just don't happen on the horn, you have to make it happen. All this stuff, very Mahlerian scoring. Big four-two chord here. Where can that go? It's so classical, large symphony. Almost Wagner, Mahler there to me. And it was really all just in service of getting us here, back further back before A. D is channeling A.

But, a lot more decorative. This tattoo is from before A.

R: Back to the very beginning.

C: Yes, and it still kind of sounds Mahlerian here. We always come to a four-two chord, this whole phrase. But I bring elements like the log drum back from the first page. All I'm doing with the tattoo is putting up a sign like Leonard Bernstein would telling you this is the second phrase, this is the third phrase.

Then it's even more exciting because I'm going a little higher now. This is all first page stuff, but then we finally get A. We get A again but it's decorated now. And it's a little more regular meter.

This is a transition with staggered entrances at bar 131, "muscular, suddenly". These are the most important staggered entrances of all that we've pointed out. This serves as a function to transition to F.

So, 130 begins that variation on the melody of B. Now I'm squeezing things together. They get so squeezed that all of a sudden they're right on top of each other. That's what you're going to see at F. This is me flexing my orchestration muscles at that point. At "muscular, suddenly" it sounds muscular because I've got F major over a low E bass. How pretty is that?

R: And how unsettling.

C: This is going to get me, this wonderful key change at 136, it's going to get me here to the key I need to be in at F. The key I'm in at F is one of those easy band keys. Oh my God, this is a logistical choice.

R: You're back to the oom-pah idea?

C: Right. Of course you know 147 is just a heightening of that. This melody is not found anywhere in the piece. It's a duple feel that is just breaking out. This is the scherzo-coda melody. Something new had to happen. I didn't want this to sound that through-composed. Interruption. 165 is A and it finds itself interrupting the scherzo.

At G we're back to scherzo. This scherzo is shorter now, like the rondo. This is a whole coda. We're interrupted at 175 with another version of A, slowed down, a little more exciting, ambitiously scored. You can see the counterpoint here. Now I have euphoniums and trombones doing the bullets.

A 3/8 bar is used at 178 as a turnaround. Now I have these really bright, bright minor seventh disco chords, I call them. You can tell we're coming to the end of this whole piece. When you start to repeat stuff that much, there's a reason. It's different than we've heard before, just keeps repeating this stuff. We have a sling-shot…. I'm just pulling the rubber-band as tight as I can. I have no idea what's going to come next after this six beat timpani roll that could go on for as long as the conductor interprets.

R: It kills all momentum.

C: Yeah. It just shakes up the Etch-a-Sketch. Exactly.

R: But, all the momentum built by the numerous repeats leads to an expectation of something.

C: Yes, that's building latency. Exactly, the latency is at capacity now, so this happens. And this is completely unexpected at H, which is the opening of the first movement of the piece. This was the best idea I could come up with for this movement, to put the very opening of the first movement at the end of this piece. I wasn't going to do that. I remember making this decision to spend all the time it would take…

And this generator from the very opening of the piece is now something we're going to take time to look at it. We're going to take time to look at it, so you're going to hear it for 28 or 30 bars worth. And we're going to see what it sounds like. It's like taking it and putting it on a pedestal and walking around it. We've never really done that. Not with this generator.

And this undulation, that gets faster, between the brass swells and the woodwind swells, these hair-pins come at you. That's not associated with anything else. That's a visual that I wanted to see written into the music. That's evocative of a throbbing generator.

And finally we get to the elephant swoops that you see in the first movement, they happen at the very end. And we get that chord. We've seen a chord like this in the first movement, a couple of them. But here, this is brasher than all of them, and this was designed to be the most alien sound. H is alien and it just keeps getting more alien. This is the most alien sound I could come

up with for just the winds. It was just a scoring choice on my part to swoop all the brass up, give you that first gesture in the trumpets that looks like it's from the very first page of music in the score. And then have this chord, which is a non-chord. It sounds to me like a wall-socket that has just been flanged or been short-circuited.

And what helps is the fact that I've got the bass clarinet on a low C, the lowest C. In fact I know that is written into the part, that natural. So, the actually harmony is interrupted. The harmony is so balls-to-the-walls, it's so in-your-face, like what is that?

R: Far from a resolution.

C: But, it's also electrical. Like another short-circuit.

R: An appropriate resolution for something so mechanical as this whole work.

C: Yeah. The ending of this piece is like the Borg. What kind of chord? I'm not going to die out in the last movement of this piece the way I've died out in the other movements.

R: Sure.

C: Not the last movement. I have to get to a brick wall. And that's the wall, right there. As long as bands can hold that thing without anybody swallowing it, then you're in. And UNC-G does a really good job of this.

APPENDIX C:

Selected Works of Carter Pann

SOLO WORKS

The Bills (1997)
Piano Solo
Fantasy-Inventions (2004)
Piano Solo
Six Strokes (2000)
Piano Solo
Soirée Macabre (2007)
Piano Solo

CHAMBER MUSIC

Antares (2003)
Violin, Cello, Clarinet, Piano
Angela's Waltz (2006)
String Quartet
Differences (1998)
Cello and Piano
Love Letters (2000)
String Quartet
Mots D'Heures: Gousses, Rames (1993)
Soprano, Violin, Cello, Piano
Piano Trio No. 1 "Nicky's Trio" (2002)
Violin, Cello, Piano
Tributaries (1999)
Two Violins or Two Violas or Two Cellos
Two Romances (1998)
Violin and Piano
Women (1996)
Soprano, Flute, Oboe, Clarinet, Saxophone, Percussion, Piano, 2 Violins, Viola, Cello, Contrabass

CHORAL MUSIC and SONGS

Bird (1996)
Soprano and Piano
Sweet Echo (2003)
Mixed Choir

ORCHESTRA

Anthems in Waves (2002)
Concerto for String Quartet and Orchestra (2003)
Dance Partita (1995)
Deux Séjours (1994)
Mercury Concerto (2009)
Flute and Chamber Orchestra
Piano Concerto No. 1 (1996/7)
Piano and Orchestra or Chamber Orchestra
Rags to Richard (1998)
Clarinet and Orchestra
A Scottish Carol (1999)
Piano and Orchestra
SLALOM (1999)
Triple Trombone Concerto (2001)
3 Trombones, String Orchestra, Percussion
Two Portraits of Barcelona (1994)

WIND SYMPHONY

American Child (2003)
Concerto Logic (2007/8)
Piano and Wind Symphony
Four Factories (2006)
Hold this Boy and Listen (2008)
Serenade for Winds (2008)
SLALOM for Wind Symphony (2002)
The Wrangler (2006)

APPENDIX D:

Biography of Carter Pann

Carter Pann provided the author with the following biographical information. It is reproduced with the composer's permission.

In the last fifteen years Carter Pann's music has become known for its blend of crafty, popular-sounding idioms, subtle and unabashed humor, and haunted melodic writing. His music has been performed around the world by such ensembles and soloists as the London Symphony, City of Birmingham Symphony, Berlin-Stockholm-Finnish Radio Symphonies, Seattle Symphony, Vancouver Symphony, National Repertory Orchestra, National Symphony of Ireland, New York Youth Symphony, Richard Stoltzman, the Ying Quartet, pianists Barry Snyder and Winston Choi, and the Antares ensemble, among others.

Honors in composition include the K. Serocki Competition for his First Piano Concerto (premiered by the Polish Radio Symphony in Lutoslawski Hall, Warsaw 1998), the Charles Ives Scholarship from the Academy of Arts and Letters, and five ASCAP composer awards. His Piano Concerto was nominated for a GRAMMY as "Best Classical Composition of the Year" 2001.

Carter's *Clarinet Concerto Rags to Richard,* commissioned for Richard Stoltzman, was recorded by the Seattle Symphony under Gerard Schwarz. *Love Letters* (String Quartet no. 1) was commissioned by the Ying Quartet for their LIFE MUSIC commissioning project through a grant from the American Music Institute. His work *SLALOM* (for orchestra) was performed by the London Symphony under Daniel Harding in 2001 and has since been widely performed throughout the United States and Europe (and subsequently showcased on NPR's Performance Today). *Concerto Logic* (Piano Concerto No. 2) was commissioned by a consortium of nearly two-dozen wind symphonies around the country with the composer as soloist.

His most recent work, *Mercury Concerto* for flute and orchestra, was written for and premiered by fellow University of Colorado at Boulder faculty member Christina Jennings and the River Oaks Chamber Orchestra in Houston. Throughout the last seven years Carter has contributed regularly to the explosion of new Wind Symphony works being written for the many ensembles around the country. He was the most featured composer at the recent Nationwide CBDNA conference in Austin, TX (2009).

APPENDIX E:

Photograph of Carter Pann

Photograph taken by the author during interviews in Austin, Texas. It is reproduced with the composer's permission.

APPENDIX F:

Permission to Reprint *Four Factories*

CARL FISCHER
SINCE 1872

HEADQUARTERS
65 Bleecker St.
New York, NY 10012

Phone:
212-777-0900
Fax:
212-477-6996
212-477-3382

DISTRIBUTION CENTER
588 N. Gulph Rd
King of Prussia, PA 19406

For Orders:
800-762-2328
International Orders:
212-777-0900
Fax:
212-477-6996

E-mail:
cf-info@carlfischer.com

October 27, 2010

Russell Pettitt
326 Huron Ave
Sheboygan, WI 53081

Carl Fischer LLC, on behalf of Theodore Presser Company, hereby grants you permission to include the excerpts listed below from the copyrighted musical work FOUR FACTORIES by Carter Pann in the dissertation titled "Carter Pann's Four Factories for Wind Symphony: An Analysis and Discussion" that you are preparing for University of Oklahoma.

Excerpts to be included:

Mvt 1 m. 1
Mvt 1 mm. 2-4
Mvt 1 mm. 5-6
Mvt 1 m. 8
Mvt 1 mm. 16-17
Mvt 1 mm. 19-23
Mvt 1 mm. 29-32
Mvt 1 m. 33
Mvt 1 mm. 34-42
Mvt 1 mm. 113-121
Mvt 1 mm. 159-165
Mvt 1 mm. 166-172
Mvt 1 mm. 182-190
Mvt 1 mm. 257-261

Mvt 2 mm. 1-3
Mvt 2 mm. 4-7
Mvt 2 mm. 12-16
Mvt 2 mm. 20-22
Mvt 2 mm. 32-35
Mvt 2 mm. 43-44
Mvt 3 mm. 1-5
Mvt 3 mm. 25-28
Mvt 3 mm. 25-32
Mvt 3 m. 35
Mvt 3 mm. 38-42
Mvt 3 mm. 50-52
Mvt 3 mm. 94-97

Mvt 4 mm. 1-4
Mvt 4 mm. 4-7
Mvt 4 m. 11
Mvt 4 mm. 29-31
Mvt 4 mm. 40-41
Mvt 4 mm. 49-50
Mvt 4 mm. 54-57
Mvt 4 mm. 64-67
Mvt 4 mm. 65-68
Mvt 4 mm. 132-135
Mvt 4 mm. 147-150
Mvt 4 mm. 151-156

Please include the correct copyright notice, as it appears in the original publication, and indicate that these excerpts are printed with permission.

This permission extends to any future revisions and editions of your thesis, and publication of it by University of Oklahoma. Any other uses of our material beyond the requirements of your University will require our additional permission.

Sincerely,

Subin Lim
Coordinator, Licensing & Copyright
Carl Fischer, LLC
O/b/o Theodore Presser Company and its affiliates