

Hexatonic Collections and Thematic Development in Frederic  
Rzewski's *Four Pieces for Piano*

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## Abstract

This paper contains a comprehensive analysis of *Four Pieces for Piano* (1977) by composer/pianist Frederic Rzewski (1938-2021). This work falls chronologically between Rzewski's more celebrated works, *The People United Will Never Be Defeated!* (1975) and *North American Ballads* (1978). Together these three works are indicative of Rzewski's compositional output in the late 1970's. This document is one of the first to offer a complete theoretical analysis of a work of Rzewski, observed from the viewpoint of both theorist and pianist. The analysis contained within provides further clarity for the performer in the break-down of complex passages, conceptualization of the work as a whole, and the clarification of mistakes contained in the score. Throughout this thesis, Rzewski's music is considered alongside other composer/pianists in the canon, showing the culture of composers that Rzewski is a part of, and furthermore solidifying his place in the timeline of not only American piano music, but also in western art music across the centuries. Through the analysis, a great deal can be learned about the late composer in the hopes that his music may continue to be studied and performed.

## Table of Contents

Abstract.....	ii
Acknowledgements.....	v
List of Figures.....	vii
<b>Introduction.....</b>	<b>1</b>
<b>I. Rzewski the Musician and <i>Four Pieces for Piano</i> (1977).....</b>	<b>3</b>
A. <i>Four Pieces for Piano</i> (1977) .....	5
B. Main Thematic Material.....	6
C. <i>Four Pieces</i> and the Sonata Process .....	8
D. Politics and Plans of Analysis.....	10
<b>II. First Piece.....</b>	<b>15</b>
A. Form.....	15
B. Properties of the Hexatonic Scale.....	23
C. Harmonic Analysis.....	26
1. A Section (mm. 2-13) .....	26
2. B Section (mm. 14-31) .....	37
3. A' Section (mm. 32-38) and B' Section (mm. 39-43).....	45
<b>III. Second Piece.....</b>	<b>51</b>
A. Form.....	51
B. Harmonic Analysis.....	58
1. A Section (mm. 1-59) .....	58
2. B Section (mm. 60-108).....	74
3. C Section (mm. 109-152).....	81
4. B' Section (mm. 153-201).....	92
5. A' Section (mm. 202-248).....	96

<b>IV. Third Piece</b> .....	101
A. Form .....	101
B. Harmonic Analysis.....	111
1. Introduction (mm. 1-11) .....	111
2. A Section and First Transition (mm. 12-35).....	116
3. B <sup>1</sup> Section and Quasi-Cadenza (mm. 36-54).....	121
4. B <sup>2</sup> Section (mm. 55-66) .....	133
5. C Section (mm. 67-101) .....	139
6. B <sup>1</sup> , B <sup>2</sup> , and the Missing A' Section (mm. 102-136).....	150
<b>V. Fourth Piece</b> .....	155
A. Form .....	155
B. Harmonic Analysis.....	161
1. A Section (mm. 1-12) .....	161
2. B section (mm. 13-23) .....	163
3. C Section (mm. 24-39).....	166
4. B' Section (mm. 40-62) and Comparison of Main Theme References.....	169
5. Transition and A' Section (mm. 63-67).....	176
<b>VI. Conclusions</b> .....	181
Appendix A: Errata.....	196
Appendix B: Repeated Chords in the A Sections of the 4 <sup>th</sup> Piece.....	198
Bibliography .....	202

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I also must extend my gratitude to Dr. Thomas Huener, with whom this paper originally started. His tutelage over the course of my undergraduate has taught me to expand my musical horizons beyond anything I may have ever imagined. His classes on historically-informed performance of 17<sup>th</sup> century music and his lessons on playing continuo have given me countless fantastic performing experiences, and have changed my views on music as a whole for the better.

In the research for this paper, I spoke with two pianists who have played these pieces for Rzewski himself. My most sincere gratitude goes out to Emanuele Arciuli, a longtime friend of Frederic Rzewski, and a wonderful performer of his music. I am also deeply grateful to Dr. David Brooks, who first introduced these pieces and Rzewski as a composer to me when I was quite young. Both pianists took time to speak with me extensively about Rzewski, about playing these pieces, and what Rzewski's music means to them, and for that I thank them.

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Martschenko

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## List of Figures

<u>Figure</u>	<u>Page</u>
Figure 1.1: Main Theme of <i>Four Pieces</i> , m. 1 of the first piece.....	6
Figure 2.1: Form of the first piece and chart with measure numbers .....	16
Figure 2.2: Tremolo notation used in the A section of the first piece .....	18
Figure 2.3: Wedge motif in m. 2.5.....	18
Figure 2.4: Secondary tremolo notation, m. 13.....	20
Figure 2.5: Aperiodic tremolo notation, m. 33.....	21
Figure 2.6: Hexatonic transpositions.....	23
Figure 2.7: Subsets of the hexatonic collection (014589).....	26
Figure 2.8: Overhead projector view of mm. 2-3.....	27
Figure 2.9: Hexatonic grouping of mm. 3-11.....	29-30
Figure 2.10: Accidental discrepancy in m. 8 .....	34
Figure 2.11: Hexatonic and (013478) connection .....	37
Figure 2.12: Main theme, m. 13 melody, and right hand melody from mm. 14-16 .....	38
Figure 2.13: Hexatonic polyphony in mm. 22-28 .....	40-41
Figure 2.14: Hexatonic organization of mm. 29.5-31.....	44
Figure 2.15: 4 <sup>th</sup> piece mm. 1.5-2.....	46
Figure 2.16: Intervallic symmetry in the A' section tone row .....	46
Figure 2.17: Treble clef typo in m. 37 .....	48
Figure 2.18: Hexatonic organization of the B' section (mm. 39-43).....	49
Figure 3.1: Form of the second piece and chart showing measure numbers .....	52
Figure 3.2: First three phrases of Beethoven's scherzo from sonata no. 18.....	53
Figure 3.3: Beginning of the B section (mm. 60-67).....	55
Figure 3.4: Bassline of <i>The People United</i> var. 27 mm. 5-14 (left) and mm. 80-94 of the 2 <sup>nd</sup> piece ....	56
Figure 3.5: Hexatonic grouping of the first two systems (mm. 1-8).....	59
Figure 3.6: Hexatonic grouping and triad pair flipping, mm. 14-22.....	62
Figure 3.7: Twelve-tone row starting in m. 23, internal pitch class sets .....	63

Figure 3.8: Tone row usage in mm. 23-34.....	64
Figure 3.9: Linear and vertical grouping of the “laughing chords” mm. 33-35.....	65
Figure 3.10: Variation 11 of <i>The People United</i> mm. 1-18.....	67
Figure 3.11: Tone row usage in mm. 42-46.....	68
Figure 3.12: mm. 47-52.....	69
Figure 3.13: Bassline of m. 47-50 extracted with hexatonic collections.....	70
Figure 3.14: Bassline of m. 47-50 in block chords.....	71
Figure 3.15: Inner voices of m. 47-50, accidentals apply only to the notes they immediately precede.....	72
Figure 3.16: Bartókian expansion of the (0123) set.....	75
Figure 3.17: Melodies for comparison.....	75
Figure 3.18: mm. 80-108 hexatonic grouping.....	77
Figure 3.19: Measures 108-117.....	82
Figure 3.20: Hexatonic “waves” mm. 119-128.....	84
Figure 3.21: Third phrase of section C-b (mm. 129-133).....	86
Figure 3.22: C-c section mm. 143-152.....	89
Figure 3.23: Melody notes in section C-c mm. 143-downbeat of 153.....	91
Figure 3.24: Triad combinations in measure 167-174.....	94
Figure 3.25: Hexatonic organization in measures 181-201.....	94
Figure 3.26: End of A’ section mm. 234-248.....	98
Figure 4.1: Form of the third piece, chart showing measure numbers.....	102
Figure 4.2: March-like accompaniment articulation pattern, m. 12-13.....	103
Figure 4.3: Transition into B <sup>1</sup> section, Slominsky-14 scale, m. 33-36.....	104
Figure 4.4: Rachmaninoff quotation in “Winnsboro Cotton Mill Blues”.....	106
Figure 4.5: Reduced introduction, hexatonic grouping.....	111
Figure 4.6: Composed-out hexatonic groupings in the introduction.....	115
Figure 4.7: Reduction of moving voices in measure 41-54.....	123
Figure 4.8: Hexatonic grouping of “cadenza” tradition and important pitch-class sets.....	128
Figure 4.9: Harmonics in the cadenza of the 3 <sup>rd</sup> piece.....	131
Figure 4.10: Extracted partials from the cadenza of the 3 <sup>rd</sup> piece.....	132



Figure 4.11: Melody from the 3<sup>rd</sup> piece B<sup>2</sup> section compared with the main theme.....134

Figure 4.12: Harmonic analysis of the B<sup>2</sup> section in the 3<sup>rd</sup> piece .....136

Figure 4.13: Page of score from “Winnsboro Cotton Mill Blues”.....141

Figure 4.14: Linear hexatonic grouping of “fugue” in the C section .....143-144

Figure 4.15: Lateral hexatonicism in the B<sup>2</sup> section mm. 108-114 .....151

Figure 5.1: Form of the third piece, chart showing measure numbers .....156

Figure 5.2: Normal and prime forms of the first eight chords of the A section.....162

Figure 5.3: Roman numeral analysis of the B section (mm. 13-16).....164

Figure 5.4: Hexatonic grouping of the transition to and beginning of the C section.....166

Figure 5.5: Prime form organization of 11-note tone row melody .....168

Figure 5.6: Main theme references comparison.....170

Figure 5.7: Tonal and hexatonic analysis of page 36.....173

Figure 5.8: Pitch class clock analysis of tone row .....176

Figure 5.9: Serial voices from measure 63-65, chart showing beat organization.....177

Figure 5.10: Tone row of the first and lowest pitch of each triplet .....178

## Introduction

The discussion of American piano music in the latter half of the 20<sup>th</sup> century is not complete without mentioning Frederic Rzewski. The American pianist-composer is famous for his politically and socially charged works, though perhaps equally well known for his pianistic virtuosity in premieres and recordings of many important works of the mid-20<sup>th</sup> century. Born in 1938, the composer and his music offers a glimpse into an American musician's experience over the better part of a century. The music of Rzewski is characterized by many things, chiefly his personal political affiliations, his experience as a performer and composer in the 60-90s, and his remarkable skills as a pianist and intimate knowledge of the instrument's capabilities and history.

This paper is a complete and thorough analysis of Rzewski's *Four Pieces for Piano* (1977). The work falls chronologically between the illustrious *The People United Will Never Be Defeated!* (1975) and another well-known work, *North American Ballads* (1978-79). While *Four Pieces* is the lesser known of the three, together this group exemplifies what is generally regarded as the most prolific compositional output of Rzewski's career. All three works are virtuosic and each requires the most exceptional playing from any pianist brave enough to learn these works. *Four Pieces* is extraordinarily difficult, standing out even in Rzewski's oeuvre as an Everest among mountains.

Two pianists have been central to the analysis contained within this thesis. Italian pianist Emanuele Arciuli performs both Rzewski's *Four Pieces* and John Adams' *Phrygian Gates* (1977) on his album "Rzewski & Adams," recorded in 2006. Comments from Mr. Arciuli's experiences in performing and practicing *Four Pieces* will be shared throughout this paper. His exceptional playing aside, Arciuli's insights have been tremendously helpful, as he spoke with me extensively about *Four Pieces* and about the composer. I extend my thanks and gratitude to

him. I would also like to thank Dr. David Brooks from Wingate University, who first introduced these pieces to me. Dr. Brooks has also played these pieces, and once played the 4<sup>th</sup> movement in a masterclass given by Rzewski himself. Dr. Brooks was kind enough to share what he learned from that experience with me, and for that I thank him dearly.

On June 26<sup>th</sup>, 2021, Frederic Rzewski passed away at the age of 83. The research, analysis, and writing of this paper was conducted before and after his untimely death. The world owes Rzewski a great debt for his many contributions to music, particularly American piano music of the last century. His unapologetically bold music will forever leave a mark on not just the musical community, but on the timeline of American and world politics and social issues. When asked if he believes his music “could actually change the world,” Rzewski replied “Probably not,” then smiled and added “But you have to write as if it could. You can’t be sure. You might.”<sup>1</sup> This paper is written in gratitude to the music Frederic Rzewski gave the world over the course of his life.

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<sup>1</sup> Woolfe, Zachary. “The New York Times.” May 5, 2016. <<https://www.nytimes.com/2016/05/06/arts/music/the-composer-frederic-rzewski-in-his-notes-protest-and-politics.html>>.

## Chapter I

### Rzewski the Musician and *Four Pieces for Piano*

Frederic Rzewski was born to Polish-Jewish parents in Westfield, Massachusetts in 1938.<sup>2</sup> Over the course of his childhood and schooling, Rzewski was fortunate to work with numerous accomplished composers and musicians. While at Princeton, Rzewski was a composition student of Milton Babbitt, and at Harvard he studied counterpoint with Randall Thompson.<sup>3</sup> As a post-graduate, Rzewski was awarded a Fullbright Scholarship to Italy, where he studied composition briefly with Luigi Dallapiccola.<sup>4</sup> It was during this period that Rzewski came to be known as a piano virtuoso, particularly in performing new music. During the 1960's, Rzewski premiered and recorded many monumental works of many respected composers, including Henri Pousseur, Christian Wolff, and Karlheinz Stockhausen, for whom Rzewski recorded the explosive *Klavierstrucke X* (1953).<sup>5</sup> Through a friendship with Wolff, Rzewski became acquainted with the great John Cage, who left a lasting imprint on Rzewski's music. Alongside two of his colleagues, Alvin Curran and Richard Teitelbaum, Rzewski co-founded the free improvisation group Musica Elettronica Viva.<sup>6</sup> "MEV" would often perform works comprising of verbal instructions written by Rzewski. The group traveled throughout Europe for a number of years, once giving over eighty performances in one season. MEV was most popular

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<sup>2</sup> New Albion Records. "Web Archive." 2004.

<<http://web.archive.org/web/20050206213303/http://www.newalbion.com/artists/rzewskif/>>.

<sup>3</sup> Morton, Brian and Pamela Collins. "Rzewski, Frederic," *Contemporary Composers*. Chicago: St James Press, 1992.

<sup>4</sup> Morton, *Contemporary Composers*, p. 795.

<sup>5</sup> Schell, "Second Inversion." <<https://www.secondinversion.org/tag/frederic-rzewski/>>.

<sup>6</sup> Schell, "Second Inversion." <<https://www.secondinversion.org/tag/frederic-rzewski/>>.

in the late 1960's, but never truly disbanded, and the group has performed together as recently as 2012.<sup>7</sup>

Rzewski found himself back in the United States during most of the 1970s, now with the most successful decade of his compositional career ahead of him. Written in 1972, *Coming Together* is considered by many to be the turning point in Rzewski's career, aside from MEV. This piece is scored for speaking vocalist and a group of instrumentalists, usually 8-10 players. It is a setting of letters from an Attica prison inmate killed during the 1971 New York correctional facility uprising. This piece is one of countless politically-charged pieces by the composer. Over the course of his career, Rzewski's works covered topics such as incarceration, the government vs. the governed, gay rights, and many others.<sup>8</sup> Just three years after *Coming Together*, his friend Ursula Oppens, an accomplished performer of piano music and friend of Rzewski, commissioned a piece that would come to be known as the composer's most successful work. *The People United Will Never Be Defeated!* (1975) is a herculean set of 36 solo piano variations on a Chilean protest song associated with the 1973 CIA coup in Chile that led to the infamous Pinochet dictatorship.<sup>9</sup> The hour-long work, which is still actively performed, pushes both the performer and the instrument to the extreme. Within this work, Rzewski explores not only avant-garde techniques and serialism, but also blends together tonal harmony, traditional form, and numerous jazz influences. Because of its seamless blend of styles, the work has seen wonderful success, and its directivity in conveying a message is unmatched among other pieces of the same period. In addition to his solo piano music, for which he is most famous, Rzewski also wrote orchestral pieces (both with piano soloist and without), solo works for various instrumentalists,

<sup>7</sup> Schell, "Second Inversion." <<https://www.secondinversion.org/tag/frederic-rzewski/>>.

<sup>8</sup> Woolfe, Zachary. "The New York Times." May 5, 2016. <<https://www.nytimes.com/2016/05/06/arts/music/the-composer-frederic-rzewski-in-his-notes-protest-and-politics.html>>.

<sup>9</sup> Schell, "Second Inversion." <<https://www.secondinversion.org/tag/frederic-rzewski/>>.

accompanied and a capella choral works, art songs for voice, and many pieces for an unspecified instrumentation, both in number of players and what they play. Later in his career, Rzewski composed several pieces for speaking pianist, such as *De Profundis* (1994) which takes text from Oscar Wilde's famous love letter written during imprisonment, or *Rubinstein in Berlin* (2008) which takes text from Arthur Rubinstein's published journal. In 1977, Rzewski returned to Europe to reside and teach in Liège, Belgium until his retirement in 2003.<sup>10</sup> He often gave lectures in the Netherlands, Germany, and the United States.<sup>11</sup> Rzewski lived in Italy for the last several years of his life, and he was active as a composer and performer until his death, even writing eight or nine pieces over the course of the COVID-19 pandemic.<sup>12</sup> In June of 2021, Frederic Rzewski passed away while with family. He is survived by his six children and five grandchildren.

#### A. *Four Pieces for Piano* (1977)

Two years after the completion of *The People United Will Never Be Defeated!*, Ursula Oppens also commissioned *Four Pieces for Piano* (1977).<sup>13</sup> Through the course of this analysis, *Four Pieces* will be referred to as a sonata, and the individual pieces will be called both "piece" and "movement" interchangeably. Both *The People United* and *Four Pieces* are monothematic, though the former uses a direct quotation of a protest tune, while *Four Pieces* features an original melody. Unlike *The People United*, *Four Pieces* has no inherent extra-musical associations,

<sup>10</sup> Albertson, Dan and Ron Hannah. "Composers21." January 3, 2017. <<http://composers21.com/compdocs/rzewskif.htm>>.

<sup>11</sup> Schell, "Second Inversion." <<https://www.secondinversion.org/tag/frederic-rzewski/>>.

<sup>12</sup> Page, Tim. "Frederic Rzewski, 'Daredevil Pianist' and Iconoclastic Composer, Dies at 83." *The Washington Post*, WP Company, 6 July 2021. <[https://www.washingtonpost.com/local/obituaries/frederic-rzewski-dead/2021/06/26/f1f2af28-d6b6-11eb-a53a-3b5450fdca7a\\_story.html](https://www.washingtonpost.com/local/obituaries/frederic-rzewski-dead/2021/06/26/f1f2af28-d6b6-11eb-a53a-3b5450fdca7a_story.html)>.

<sup>13</sup> Ralph van Raat, Program Notes to "Frederic Rzewski, *Four Pieces for Piano*" Solo piano, Ralph van Raat. Raat claims that *Four Pieces* was intended to be a sequel to *The People United*, but that it became an independent "quasi-sonata."

though close connection with the former work and the political leanings of its composer can certainly lead the listener to assume an underlying program for the piece.

### B. Main Thematic Material

Fig. 1.1: Main Theme of *Four Pieces*, m. 1 of the first piece

**Four Pieces for Piano**  
I

Dreamlike (♩ = ca. 66)

Frederic Rzewski  
(1977) For Ursula Oppens

*una corda*

Similar to *The People United*, the very first material heard in *Four Pieces* serves as the main thematic resource for the entirety of the work, and it will be referred to as the “main theme” many times throughout this paper. Figure 1.1 above splits the main theme into three main groups. The opening thirds in yellow suggest a subdominant/tonic relationship in D major, and Rzewski’s instruction of “dreamlike” as well as presenting the motive twice at such drastically quiet dynamics certainly helps convey the feeling of a dreamy plagal cadence. The melody shown in yellow will be the most frequently used source of material throughout the sonata, and most quotations of the main theme will be drawn from just these two small slurs. Already, Rzewski has shown one of, if not the single most important idea in the whole sonata—thirds, both harmonic and melodic. Alongside the thirds, Rzewski is circling around the mediant of the pitch B, and looking toward the end of the phrase in blue we see that it does in fact cadence in B minor, not the relative major as it seemed at first. The choice of the minor dominant chord is a

wonderful aesthetic choice, giving very little finality to the phrase, another theme that will return in every single movement. See this quote from the last page of score in the fourth piece:

“The final notes should not have the character of a cadence but rather the contrary, of something unfinished; it should not be clear whether another sound is coming, until all sound has in fact died away.”<sup>14</sup>

Curiously, the last two pitches of the 4<sup>th</sup> piece are B and A#, the leading tone that was absent in the main theme. As will be explored many times, this analysis will claim that the entire sonata is in the key of B minor. This is not to say that each movement can be analyzed with traditional tonal harmony, but rather the main pitch material of the entire work is centered around B minor. Returning back to figure 1.1, the transition material in orange consists of open fourths and fifths. The melody in this transition material is a minor second played repetitively. Pianist Ralph van Raat says the “Andean style hints at a protest tune of the Chilean people against undemocratic forces.”<sup>15</sup> Emanuele Arciuli agrees that there is something Chilean or Peruvian about the theme, but he suggests that perhaps Rzewski is not quoting a protest song like he did in *The People United*, but possibly a popular song.<sup>16</sup> As it stands, only Rzewski knew the true origin of the main theme, but there is something to be said about the open fifths and fourths being indicative of Andean music.

Though no time signature is provided for the main theme, through Rzewski’s inclusion of a dotted-breve rest in the left hand it is understood that he certainly suggests that the rhythm in this passage be precise, as opposed to a free interpretation with a more minimal notation. The rhythm of the ascending minor thirds, as well as the open fourths and fifths of the transition evoke a triple meter, while the quarter and half notes, found at the end of the yellow section and

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<sup>14</sup> Frederic Rzewski. *Four Pieces for Piano*. Zen-On Music Co., 1981, p. 37.

<sup>15</sup> Raat, Program Notes to “*Four Pieces for Piano*”

<sup>16</sup> Conversation with pianist Emanuele Arciuli, Oct. 27<sup>th</sup>, 2020.



the entire blue section, sound as if they are in a duple meter. Regardless of how one might beam or separate these notes, the effect is meant to be “dreamlike,” and the juxtaposition of triple vs. duple achieves such a feeling.

The main theme will permeate every page of music for the remainder of the sonata, and Rzewski has crafted it in such a way that the listener cannot help but hear it resonate for the next half hour. The ascending minor thirds, melodic semitones, and structural perfect fifths will craft the work as a whole, coming back in many significant and varied ways. Additionally, the B minor tonality and the lack of closure will be memorable traits of the sonata.

### **C. *Four Pieces and the Sonata Process***

After the introduction presenting the main theme, the first piece begins. This work is a typical first movement of a four-movement sonata. It is by far the most difficult to play, but begins what will be referred to as a “decrecendo of complexity,” meaning each movement will become more direct and less opaque, though none of the movements are outright simple. The first movement is the freest rhythmically of the four pieces, and includes many systems of unmeasured music. It is also the only movement not in an arch form, instead cast in a simplistic binary form. The first two markings given by Rzewski are “violent, impulsive,” and “with a heavy feeling,” making this the darkest of the four pieces. In many ways, this is the densest for the listener, but in paying careful attention to the opening movement, one will be rewarded by numerous references throughout the remaining three pieces.

The second piece is the shortest of the four, marked “light + bouncy” at the opening, and it carries an unmistakable scherzo-like feel. Having played these pieces for Rzewski in recitals they would program together, Emanuele Arciuli has confirmed his suspicions of a connection to Beethoven scherzos to the second piece of *Four Pieces*. Arciuli says Rzewski loves Beethoven,

as he will often program Beethoven on his own recitals.<sup>17</sup> Of course, Beethoven is credited for replacing the minuet with the scherzo in the sonata cycle, and 200 years later that lasting effect can still be seen in Rzewski's sonata. One can hear recollections of several Beethoven scherzos while listening to the second piece, such as the energetic scherzo from sonata no. 18, "The Hunt," or the fifth movement of the fourteenth string quartet. As will be explored, Arciuli names three major connections between a Beethoven scherzo and a Rzewski scherzo: humor and energy, difficult pianism with sparse notes, and contrapuntal writing.<sup>18</sup> Similarities can be seen to the stylistic traits of other musicians in this movement, particularly jazz musicians such as Herbie Hancock and Steve Lacy, with whom Rzewski was acquainted. The second piece is the most energetic, offering a great deal of pianistic difficulty, and also gives a large amount of content to the listener in a short amount of time.

Opening with the "loose" stark octaves, the third piece is the longest, slowest, and contains some of the most difficult passages to play. It contains the climax of the entire sonata, and like the other movements it includes significant references to the other movements. This movement also has the longest explicitly tonal sections, with simple progressions repeated several times in an effort to build tension. It seems that Rzewski is playing with the concept of "cadence" at the end of a piece, and this is especially prevalent in the third movement. On one hand, this movement is the only movement to actually end—it concludes with a sustained chord played in a lower register which can certainly be heard as a definitive ending. On the other hand, there is a hole in the formal structure of the work. It is set in an arch form with an introduction, Intro – A – B – C – B' – (A'), but the last A section is missing, shown by the parenthesis.<sup>19</sup> This

**Commented [ME1]:** This may need a source, but maybe wait until after grad applications

**Commented [ME2R1]:** Rosen Classical Form? Groves article on Scherzo or Beethoven Scherzo?

<sup>17</sup> Conversation with Emanuele Arciuli.

<sup>18</sup> Conversation with Emanuele Arciuli.

<sup>19</sup> For an explanation of the formal structure of the 3<sup>rd</sup> piece, see page 99.

throws the listener off, and therefore the final chord, definitive as it may be, is not perceived as a confident close to the movement.

The fourth piece of *Four Pieces* is by far the most popular, and is often performed without the other three movements, even by the composer himself. Rzewski intended for the entire set to work together, as is evident in the inclusion of motives across all four movements, but he may have also wanted each piece to be able to function on its own. The fourth piece is the most suited to be played solo as it encompasses most of the thematic and harmonic material covered in the three previous movements, functioning as a summary of the entire work. The 4<sup>th</sup> piece is fast paced, easiest to play among the four, and quite effective. Listening to the movements in succession permits the listener to hear the “decrecendo of complexity” that leads to the final movement, making the first movement difficult to grasp, but the fourth rather simple.

#### **D. Politics and Plans of Analysis**

Music critic David Hurwitz of classicstoday.com gave a glowing review of *The People United* in which he called Rzewski’s piece the best set of piano variations since Beethoven’s *Diabelli Variations*. In the same breath, Hurwitz says “Rzewski has a left-wing political agenda which—happily—does not get in the way of his musical expression, most of the time.”<sup>20</sup> Regardless of Mr. Hurwitz’s political opinions, or any other listener’s, leaving out the political commentary in Frederic Rzewski’s music is worse than simply not realizing it is there; it is intentionally choosing to be oblivious. Rzewski is never hiding a political meaning deep in the score—he lays it out plainly for everyone to see. The opening theme of *The People United* includes the text to the protest tune in both Spanish and English. MEV’s *Stop the War!* has the pianist yell out the title of the piece during the performance. *Attica* and *Coming Together* both

<sup>20</sup> David Hurwitz, “Repertoire: The BEST Rzewski *The People United Will Never Be Defeated!*” classicstoday.com.

include descriptively gut-wrenching text that are the crux of the piece, not just a single aspect.

When one listens to a composer like Wagner or Shostakovich, or when one reads Schenker, their political and social views can be occasionally put to the side because they are, to some, not necessary to the expression of the piece. Doing so with Rzewski is impossible, because putting aside the politics is simultaneously putting aside the music. To listen to his music without acknowledging the presence of Rzewski's political statements would be the same as not listening at all.

That being said, *Four Pieces* is unique in that there is no inherent political or social meaning accosting the performer or listener. Every other piece mentioned so far has an overt reference to a political/social event or issue, but *Four Pieces* is, as far as the listener is aware, purely absolute music with no other influence. This is not to say that the composer wrote it with no politics or social issues in mind—he just has not revealed them to the listener. Perhaps this explains the lack of catharsis and cadences in each of these pieces. Anyone who knows Rzewski's music will expect a political message when listening to *Four Pieces*, but will never receive it directly from the composer. Yet an idea may formulate in their own mind, in the pianist's mind, or possibly it will not. Rzewski is teasing this philosophical absence just as much as he teases a resolution in any one of the sonata's movements.

Because of this absence of a political message from the composer himself, it is inappropriate for this paper to impose one. Political views of Rzewski will be shared when they are appropriate, but because he did not say anything explicit about this sonata, nothing will be assumed. While the vast majority of academic writings on Rzewski have taken a political or historical stance, or a pianistic overview, this paper is among the minority of writings that explore Rzewski's music in a theoretical and music-analytical lens, which can reveal his

compositional craft and ability to make such dense and abstract music comprehensible to its listeners. Rzewski's compositional style evident in his *Four Pieces* is not dissimilar to many of his other works, and is arguably more similar to *The People United* than any other work. Of benefit to pianists learning *Four Pieces*, the discussion contained within describes many mistakes in the score that should be corrected, and difficult passages are explained so that they may be conceptualized by the pianist, aiding in their performance. It is hoped that more theoretical writings like the current paper are written about Rzewski's more famous works so that they may be performed more accurately. Additionally more writing on his less famous works, such as *Four Pieces*, might lead to their entrance into the repertoire. Frederic Rzewski wrote far too many phenomenal works for him to only be remembered by *The People United*.

This paper will explore the ways in which Rzewski has made *Four Pieces* as effective as it is, and illustrate how it is just as worthy of study as the more popular *The People United* and *North American Ballads*. Being written within four years of each other, these three pieces share a lot of similarity in style and process, and for a time I believed the three pieces to be connected. However, Arciuli, who has played all three works, strongly believes that they are not connected in any meaningful way. In *Four Pieces*, Rzewski has allowed the performer the freedom of playing all four pieces together or separately, when such is not the case with *The People United*. The set of 36 variations must be played as a whole entity, and Arciuli likens the famed work to Mendelssohn's *Lieder Ohne Worte*. As for the *North American Ballads*, Arciuli sees more similarities to *Four Pieces* than in the former pair. He argues however, that the ballads are more polyphonic in style, which separates it from its two predecessors. Arciuli, a celebrated pianist of

new music,<sup>21</sup> confided in me that he believes these three piano works of Rzewski to be not just the American composer's best piano output, but among the best piano music written in the latter half of the 20<sup>th</sup> century.

The pieces will be analyzed in the order the listener hears them. Often in this analysis, what appears to be an annotated score will be shared, but this cannot supplant the use of a score alongside reading this paper. Frequently in these annotations, various markings, dynamics, and text will be erased from the score to allow room for the annotation; to truly experience everything Rzewski writes in the music it is imperative that the reader acquire a score.<sup>22</sup> Perhaps even more important, it is strongly encouraged that the reader listen to the works as they read, and while there are not many full performances of all four aside from Arciuli's,<sup>23</sup> all of the pieces can be found online. In August of 2021, after the composer's death, Vanguard Classics released an album titled "Rzewski: Four Pieces, Which Side Are You On?" which includes recordings of the composer playing the entire sonata and a movement of the *North American Ballads*.<sup>24</sup> These recordings were made in 1980, and are the only existing recordings of Rzewski playing *Four Pieces*. Those familiar with Rzewski's recordings know that he is not afraid of deviating from the score—see Rzewski's recording of Beethoven's *Hammerklavier*, which lasts a full hour due to Rzewski's frequent improvisations. At the same time, rarely does Rzewski correct wrong notes in his recordings, be they finger slips or a misreading. On one hand, this gives the recordings a great deal of life and excitement, but on the other hand, it leaves the analyst without a golden standard should any discrepancies or typos arise in the score. Additionally, Rzewski's

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<sup>21</sup> Arciuli has had pieces written for him by Babbit, Bolcom, Crumb, Harbison, Rzewski himself, and several others.

<sup>22</sup> Frederic Rzewski makes the majority of his scores available on IMSLP, or accessible elsewhere online.

<sup>23</sup> Arciuli, Emanuele, "Rzewski & Adams" CD, 2006.

<sup>24</sup> Frederic Rzewski, "Four Pieces (1977) 'Which Side Are You On' (1978) from *Four North American Ballads*" Digital Recording by Vanguard Classics. Recorded in 1980, released in 2021.

recordings were made before the publication of *Four Pieces* by ZenOn Music in 1982. It is entirely possible that Rzewski made changes to the piece in the two year gap between recording and publication.

In an attempt to familiarize the reader with the pieces, form will be addressed first in each case, occasionally followed by an analysis of an important issue to the piece, whether that be unorthodox notation used by the composer, the use of a particular scale, or other. This will all be followed by in depth harmonic analyses while explaining pianistic technique and performance aspects, the experience for the listener, and what can be learned from studying the fantastic music that is *Four Pieces for Piano*.

## Chapter II

### First Piece

#### A. Form

The first piece of this work is undoubtedly the most complex for the pianist, the analyst, and for listener. The sonorities and textures that Rzewski is able to produce push the piano to the farthest reach of its capability, as well as the capabilities of the performer. This movement is incredibly dense even in the context of Frederic Rzewski's output. While the length and stylistic range of the entire *The People United* likely makes it more difficult than *Four Pieces*, there are few variations in *The People United* that are as difficult as the present music. That being said, the music is not without explanation—all that is needed is an understanding of the form of the piece and of the hexatonic scale, the single most important harmonic driving force of the sonata. And as will be seen, the sonata features a “decrement of complexity” across each movement; the first movement is the most complex, the second movement less so, and so on until the (relatively) simplistic fourth movement. In truth, none of the movements are simple, each piece has its own intricacies and difficulties. But over the course of the sonata, Rzewski will be sure to instill several essential ideas into the ear of the listener, so that as more music is heard, the listener will be better prepared to notice these important references.



Fig. 2.1: Form of the first piece and chart with measure numbers

## Intro - A - B - A' - B'

Formal Section and Transitions	Measure Numbers
Introduction	m. 1
A section	mm. 2-13
Transition	m. 13
B Section	mm. 14-31
A' Section	mm. 32-38
B' Section	mm. 39-43

Because a great deal of music in the first movement is unmeasured, it is important to be consistent with measure numbers. A new measure only starts after a barline, which means that some measures may last several systems. For example, on the first page of score, the entire introduction is contained within measure 1. Measure 2 is accompanied by the title “Violent, impulsive,” and the same measure lasts all the way to the third system of the page. Measure 3 is then the measure with B-A $\sharp$  in the topmost staff. In several figures throughout this paper, if a measure at the beginning of a system is a continuation of a measure from a previous system, it will be marked as, for example, m. 2.5. Even if the measure has lasted for three systems, the third system’s measure will still be marked 2.5.

The introduction in m. 1 is heard more as an introduction to the entire sonata than as an introduction to just the first movement, similar to how the thema in the beginning of *The People United* is heard as an introduction to the entire work. Therefore, the first piece truly begins in m. 2. The lowest B on the piano, B $\flat$ , is played in a tremolo with the C a minor ninth above it. It is no coincidence that the first pitch heard in the first piece is a B $\flat$ , the tonic of the introduction heard just moments before. Throughout the entire sonata, a great deal of weight will be given to

the tonal area B, enough so that one may say the overall key of the sonata is B minor. This claim will be evidenced numerous times throughout the remainder of this paper.

Rzewski wastes no time getting into the turbulence and violence of the first movement. Few moments in the rest of the sonata will be as tumultuous for as long as the A section (mm. 2-13) of the first piece. The music here is unmeasured, and the pitches in measure 2 are not given rhythmic values—instead, most pitches are given a number above the notehead. A note at the bottom of the score reads, “Numbers indicate loosely rhythmic values, depending on the resonance of instrument. Not to be felt as in a meter. Where no values are given, interpret freely.” In place of a metronome marking, Rzewski instructs “1=ca. 90.”<sup>25</sup> One click of the metronome at 90BPM lasts three-quarters of a second. Therefore, the first pitches, which are given a numeric notation of 11, should last for roughly 8.25 seconds. Of course, the performer is not able to sit at the piano bench with a stopwatch—the numbers should be felt generally and should depend on the specific moment. The A section of the first piece will never be played exactly the same twice.

The pitches in m. 2 are given a variety of articulations and playing techniques. Some are accented, some unaccented, and many are marked tremolo. Halfway through m. 2 an unorthodox tremolo notation is used (see figure 2.2 below). This notation is primarily for the ease of the pianist as it instructs which pitches should be struck on either end of the tremolo. For example, in the first example in figure 2.2 the pianist is meant to play the C $\sharp$  and G $\sharp$  together as a pair, oscillating with the D $\natural$  (this staff is in bass clef). Altogether, these three pitches are given the numeric notation of 4, and should last roughly 3 seconds.

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<sup>25</sup> Rzewski *Four Pieces* p. 3.

Fig. 2.2: Tremolo notation used in the A section of the first piece



A formally important motif is introduced in m. 2.5 (third system of the first page of score). This motif will return in measure 32 to signal the return of the A section, and will also see a brief reprise in the 3<sup>rd</sup> movement (see pg. 135). Because of the expanding nature of the motif, this will be referred to as the wedge motif (see figure 2.3 below).

Fig. 2.3: Wedge motif m. 2.5



Starting in measure 4, Rzewski gives the instruction “free time,” meaning the pitches here should continue to be felt without meter. Many specific moments do continue the numeric notation used in measures 2 and 3, but there are extended passages of many notes with no number attached. Because of the exceptional difficulty of this music, it is likely that the pianist will simply play the pitches when their hands are able, though Rzewski does give some hints as to how the music might be felt. Most of the pitches are beamed across the staff in large groups (see m. 4 for two different beams). Notes are stemmed together regardless of register, conveying an idea that the music is one large conglomerate of sound, not two hands playing melody and accompaniment. This is further evidenced by measure 12, which is given a tempo marking of 90BPM to the eighth note, though there is still no time signature. In this bar, the pitches are no

longer all beamed together to one large beam between the staves, but are given three distinct beams, communicating that this bar is instead three-voice counterpoint.

All of the music in the A section can be organized using the hexatonic collection, and likewise the vast majority of the sonata can be analyzed using the same. The properties of hexatonicism will be explored before moving on to the analysis of the first piece, and the entire sonata will show the endless possibilities of the six note set, as well as the compositional prowess of Rzewski.

Measure 12 finishes with both hands playing two minor triads in a tremolo together. These triads are always a minor second apart (for example, F $\sharp$  minor and F $\natural$  minor, m. 12). This forms the pitch class set (013478), a set that will be analyzed further in the analysis section. The composer offers another specific notation pertaining to the tremolos, though the purpose is the same as in figure 2.2; a small bracket tells the performer which pitches should be played together on either side of the oscillation (see figure 2.4 below). Unfortunately, this is not instructed in any performance notes or a footnote at the bottom of the page, so the notation may be interpreted differently or even ignored outright. Rzewski quotes the main theme in measure 13, signaling the end of the A section and the beginning of something new.

Fig. 2.4: Secondary tremolo notation, m. 13



Marked “with a heavy feeling” and given a time signature of 4/4, the B section (m. 14-31) begins with more references to the main theme. The tremolos here are notated in 32<sup>nd</sup> notes (m. 14-15) as Rzewski briefly uses a subset of the (013478) set. The main theme is referenced again in measure 18, now set in D $\sharp$  locrian, accompanied by the full (013478) set, though it is now arpeggiated instead of played in a tremolo. Rzewski returns to voices moving in counterpoint in measure 22, and brings back the hexatonic collection that was used throughout the first section. These voices move in counterpoint, swelling until m. 28, where the music returns to free time. Both hands are given a single beam in the middle of the staff once again, and often move in pairs of parallel thirds. These thirds are occasionally interrupted by sweeping arpeggios (m. 29). After the second interruption, the main theme is quoted once again in D minor on the top of page 7. This quotation, accompanied by a ritardando and diminuendo, relaxes the music into m. 30, where the right hand now moves in parallel 10<sup>th</sup>s. A short passage in A minor (m. 31) is the calm before the storm that is the A’ section.

A single bar of 4/4, marked 40BPM, starts the A’ section (m. 32-38). The right hand plays the wedge motif from m. 2.5 earlier while the left hand repeats the lowest A $\sharp$  on the keyboard, A $\sharp$ 0. This repeated note will grow into a tremolo with multiple notes, and Rzewski gives yet another specific tremolo notation, different from the two previous (see figure 2.5

below). This specific notation will not be found elsewhere in the sonata, though the first tremolo notation (figure 2.2) will be used in the second and third movements. This time, a footnote is given in the score, “Irregular tremolo, in a pulse but with aperiodic note patterns.”<sup>26</sup> The tremolo starting in m. 33 continually adds pitches, growing to a seven note semitone cluster, (0123456). The intervals are far too wide for any pianist to play each pitch (spanning from A2 to G4 in the right hand), thus Rzewski’s instruction of “aperiodic note patterns” becomes clear—the pianist should move between various different notes and tremolo some of the pitches for a brief time before moving on to include other pitches. With the pedal down, and with the music “gradually accelerating and growing louder,” the effect should be that of each pitch being included in the tremolo, even though such a reach is not possible.

Fig. 2.5: Aperiodic tremolo notation, m. 33

After the seventh pitch has been added to the tremolo, the pianist then plays rapid passages of the same notes in the order they were added to the initial tremolo. After each repetition, one additional pitch is added to the end of the passage. This continues until the passage includes all 12 notes, forming a tone row that will be analyzed in greater depth on page 42. The 12-tone passage is played once again and interrupted by a tremolo chord (m. 33.5, bottom of page 7). Once again, the 12-tone passage is played, now interrupted by two tremolo

<sup>26</sup> Rzewski *Four Pieces* p. 7.

chords, played one after the other. For a final time, the 12-tone passage is played, then interrupted by three chords (m. 33.5, top of page 8). Subsequently, the 12-tone passage loses an increasing number of notes from the beginning of the passage, shrinking from the beginning instead of growing from the end as it did previously. This entire process lasts the entirety of measure 33, and once only the tremolo chords remain, Rzewski returns to the intense hexatonicism first heard in the A section.

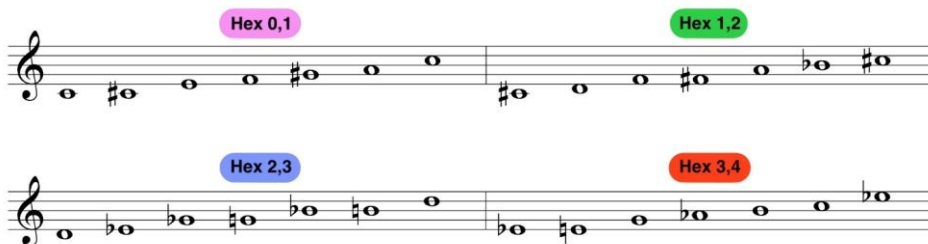
The rapid hexatonic lines traverse the entire keyboard, occasionally stopping for dense chords played staccato (m. 35) or returning to the aperiodic tremolo notation (m. 37), all growing to measure 38. Played triple forte, the pianist plays a massive tremolo chord instructed to be played “very long.” The pianist must continually tremolo this chord that occurs on the downbeat while quickly jumping to play chords in the middle range of the keyboard. This measure returns to the numeric notation, and when adding together all of the numbers that are contained within this massive chord, it should be held for 41, which translates to roughly 30.75 seconds. The dynamic decreases all the while, bringing in the final B’ section and closing the movement.

The two main characteristics of the B section return in measure 39—the reference of the main theme and the use of 4/4 time. Unlike the initial B section, the B’ section (m. 39-43) also starts with hexatonicism. The minor triad tremolo’s return, here forming subsets of the previously used (013478) set. In a drastic register shift, m. 42 sees both hands move to the upper reaches of the keyboard, playing chords reminiscent of those heard in the piano part of the first movement of the *Quartet for the End of Time*, where Messiaen has the pianist play an endless stream of chords that would loop forever were the movement not to cut it short. These chords descend constantly, and upon reaching the middle of the keyboard the articulation changes from

long slurs to an instruction used frequently in *The People United*.<sup>27</sup> The chords are meant to be played staccato, but the resonance is to be caught with the pedal—the pianist must accomplish this by pedaling immediately after releasing the staccato pitches, only the early reverberations of the instrument are maintained. The effect is an icy, distant sound, without direction and connection to the surrounding music. After thirteen chords, the pianist is directed to cut off abruptly, and a thin double bar line is given as opposed to the typical heavy double bar line signifying the end of the piece. In fact, every movement is given a thin double barline at the close, and each movement has their own method of leaving the piece open ended, each of which will be explored.

### B. Properties of the Hexatonic Scale

Fig. 2.6: Hexatonic transpositions



The hexatonic pitch collection is the primary harmonic force driving this sonata.

Understanding the many ways in which this scale can be used is integral to understanding the analysis of Rzewski's work. There are four hexatonic transpositions (a fifth would have the same content as hexatonic 0,1), and each is named for the pitch class of its first two notes. The prime form of the collection is (014589), which Rzewski will use in countless different manners. As Emanuele Arciuli and others have pointed out, the music of Rzewski is based primarily on

<sup>27</sup> See variation 5 of *The People United Will Never Be Defeated*.



intervallic relationships.<sup>28</sup> The interval class vector of the scale is <303630> which already reveals much about the use of intervals in this piece. Most notable are the six major thirds, which is likely what leads many, particularly jazz musicians, to think of this scale as two augmented triads separated by a semitone. There are no major seconds and no tritones, a fact that Rzewski will use to his advantage in the work—there will often be some sort of significance in the music when one of those two intervals are used. Recall that the main theme of the sonata is characterized by ascending minor thirds, motion of parallel thirds (major and minor), structural perfect fifths, and melodic half steps. These intervals are exceedingly important to the analysis of the sonata, and are also the only intervals contained within the hexatonic scale. All of these intervallic relationships to the piece remain true even when Rzewski is not explicitly using a hexatonic scale, so it is evident that the interval content of the scale was on the composers mind as he wrote.

The color coordination used in figure 2.6 will remain consistent throughout this paper. Hexatonic 0,1 will always be pink, hexatonic 1,2 will always be green, and so forth. If printed in black and white, or if color is otherwise unavailable to the reader, each group of hexatonic pitches will be included within a box of the same color, and given a label. For an example, see figure 2.9 on page 29.

Rzewski will frequently switch back and forth between two different hexatonic collections in an effort to obtain more than six pitches. Shifting from hexatonic 0,1 to 1,2 is transposing up a half step, and three common tones are shared. Shifting from hexatonic 0,1 to 2,3 is transposing up a whole step, and zero common tones are shared. Lastly, shifting from hexatonic 0,1 to 3,4 is transposing down a half step, not up a minor third, and therefore will have

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<sup>28</sup> Conversation with Emanuele Arciuli.

the same result as the first transposition—three common tones. Using the transposition of zero common tones (a major second) will be seen many times, as this yields all twelve pitch classes and therefore the most content.

Going one step further in analysis of the hexatonic collection, there are a number of triads that fit in the hexatonic scale. The scale has the following:

- 2 augmented triads, separated by a m2 (counting each triad once, without inversions)
- 3 major triads, each separated by a M3
  - These same triads can each have a major seventh and a #9 extension
- 3 minor triads,<sup>29</sup> each separated by a M3
  - These same triads also have a major seventh extension (the #9 is just the third in this case)
- No dominant seventh chords
- No diminished triads

Lastly, due to the cyclical nature of the set, there are not many subsets that can be made out of the scale. The graph in figure 2.7 lists the five-note, four-note, and three-note subsets of the hexatonic scale. Because of the equal division of the octave within the hexatonic scale, removing only one pitch will always yield the set (01458), regardless of which pitch is missing. Because of this, it can be assumed that the pentachord (01458) is always going to have hexatonic intentions. The same cannot be said for the tetrachords (though very frequently these tetrachords are also hexatonic). There are only four tetrachords possible; a minor chord with a major seventh, a major chord with a major seventh, the “split third” chord, and the set (0145) which we will return to later. Important trichords include the triads mentioned above, as well as (014) and (015).

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<sup>29</sup> It is important to note that the minor triads share the same roots as the major triads. In essence, each hexatonic scale has three triads which can be either major or minor.

Fig. 2.7: Subsets of the hexatonic collection (014589)

<b>Pentachords</b>
(01458)
<b>Tetrachords</b>
(0145) (0148) (0158) (0347)
<b>Trichords</b>
(014) (015) (037) (048)

### C. Harmonic Analysis

#### 1. A Section (mm. 2-13)

As mentioned above, the first movement truly begins after the introduction in m. 2, as the introduction relates to the entire sonata, not just the first movement. For discussion on the introduction see page 6. The A section is the most tumultuous and violent section of music in the entire sonata, beginning with the numeric notation and unorthodox tremolo notation. If the listener was attentive to the intervallic content of the main theme, they will be able to comprehend the first few measures of the A section easily. Among these prominent intervals were the ascending minor thirds, as well as the repeated melodic minor seconds. The music within measures 2 and 3 is comprised of these intervallic relationships as the soundscape gradually evolves, adding more and more pitches across the bottom half of the keyboard. The way Rzewski accumulates and expands the sound creates a three-dimensional image, adding layer upon layer. See figure 2.8 below for an overhead projector-like analysis of these intervals. In the image on the top, thick green lines are showing minor ninth intervals and thin blue lines show major sevenths. In the middle image, thin red lines show minor thirds. The bottom image combines the previous two images. Notice that the minor ninths and major sevenths are frequently harmonic, vertical intervals, while the minor thirds are usually melodic. All score markings not immediately relating to pitch have been removed, so referring to the original score in comparison with figure 2.8 will be useful.

Fig. 2.8: Overhead projector view of mm. 2-3

The image displays two systems of musical notation, labeled 'm. 2' and 'm. 2.5', illustrating an overhead projector view. Each system consists of multiple staves. The notation includes notes, rests, and accidentals. Colored lines (red, blue, green) are drawn across the staves to connect specific notes between different systems, likely representing voice leading or chord connections. The 'm. 2' system shows a complex web of connections between notes on various staves. The 'm. 2.5' system continues this pattern, with lines connecting notes across the staves. The notation is presented in a way that allows for a clear view of the relationships between notes in different parts of the score.

Several important sets are contained within the music in the measures above. The first three pitches are successions of minor ninths, forming the trichord (012) with the right hand C#. As this pitch dies out (it is played once, not with a tremolo) the right hand plays B $\flat$  and A $\sharp$  on top of the left hand B-C tremolo. Together, this forms the (0123) tetrachord, an extension of the previous trichord. Save the hexatonic collection, no pitch class set is more important to the analysis of this sonata than the semitone cluster (0123). Entire sections will be built upon this tetrachord, recognizable sonorities will be built of it, and several other pitch class sets will be based on it or related to it, including by extension even the hexatonic collection.

Because of the limited interval content of measure 2, hexatonic relationships could be made. But this is not the way the music is heard—an ever-growing soundscape with little melodic movement does not invite the ear to hear hexatonicism, so analyzing the music in such a way would be a disservice to the point that Rzewski is attempting to convey. However, moving on past this section, the texture changes quite drastically to include a blend of melodic motion, the tremolo's previously used, and more recognizable lines.

Fig. 2.9: Hexatonic grouping of mm. 3-11

The image displays a musical score for measures 3 through 11, divided into two systems. The top system covers measures 3 to 5, and the bottom system covers measures 6 to 11. The score is written for a grand staff (treble and bass clefs). Colored lines and boxes highlight specific hexatonic groupings within the music. The groupings are labeled as follows:

- Hex 0,1** (purple boxes): Located in measures 3, 4, 5, 6, 7, 8, 9, 10, and 11.
- Hex 1,2** (green boxes): Located in measures 4 and 7.
- Hex 2,3** (blue boxes): Located in measures 3, 4, 5, 6, 7, 8, 9, 10, and 11.
- Hex 3,4** (orange boxes): Located in measures 4 and 7.

Measure numbers 'm. 5' and 'm. 2,5' are indicated at the top of the first and second systems, respectively. The score includes various musical notations such as notes, rests, and accidentals.

The image displays a musical score for two staves, with annotations for hexagrams (Hex) in various colors (red, green, blue, purple) and arrows pointing to specific notes. The score is divided into two sections: measures 8 (m. 8) and measures 10.5 (m. 10.5). The annotations include:

- Hex 0,1** (purple): Points to notes in measures 8 and 10.5.
- Hex 1,2** (green): Points to notes in measures 8 and 10.5.
- Hex 2,3** (blue): Points to notes in measures 8 and 10.5.
- Hex 3,4** (red): Points to notes in measures 8 and 10.5.

Arrows of corresponding colors indicate the direction of the hexagram's influence or the sequence of notes. The score includes treble and bass clefs, a key signature of one flat, and various musical notations such as notes, rests, and accidentals.

Again, this is the most complicated music of the entire sonata right at the opening. Figure 2.9 above has removed all non-pitch related markings from the page to make room for the hexatonic labels. Each figure in this paper that pertains to hexatonicism will be formatted in this way, with pitches included in labelled boxes. These figures are all written with the intention of simplicity, and an attempt has been made to reduce the number of labels written on the score. This means that pitches included within the same hexatonic box are not inherently part of the same musical idea, those pitches just conveniently fit within the same transposition at relatively the same part of score. Very frequently pitches within the same hexatonic transposition do work together gesturally or musically—this just cannot be guaranteed by the hexatonic figures contained in this paper. Given that between any two hexatonic transpositions there will be either zero or three common tones, it is very common to see overlap between hexatonic boxes. This is shown simply by extending a box so that the common tones are shown within both transpositions. For example, see measure 8 in the left hand where hexatonic 3,4 is used. The pitches contained within the hexatonic 3,4 label are C, Eb, and B, but the Eb and B also fit in the surrounding hexatonic 2,3 label.

Rzewski's utilization of the hexatonic scale is shown particularly well in these few bars of score. Measures 3-4 show his tendency to use two transpositions a major second away, the transposition of zero common tones. The usage of hexatonic 0,1 and 2,3 starts in m. 3 cleanly between the two hands, and together form the semitone cluster set (0123). For the first beam group of m. 4, the hands play in major seconds, a texture that will return strongly in the second



movement.<sup>30</sup> The hexatonicism blends between both hands for the duration of these major seconds, but by the second beam the hands each have one transposition to themselves again, in the reverse order as m. 3.

Throughout this section, the texture will often thin to allow room for a descending minor third to be heard, indicative of the minor thirds in the main theme. In the second beam of m. 4, the right hand plays Ab-F, and then E-C#. In the same location, the left hand plays the drastically low D-B, maintaining now the key center of the main theme. Figure 2.9 above only goes to measure 11, but the hexatonic distribution continues through to the end of m. 12 in a similar manner. It ends with the introduction of the (013478) tremolo chords in both hands.

It is important to notice how little pitch content is needed before being able to confidently identify which hexatonic transposition is being used. Recall that the interval class vector of the hexatonic set is <303630>. The smallest number of pitches needed to determine the transposition of the hexatonic set is just two pitches, except when those pitch classes form a major third. To demonstrate this, the pitch class pair of C and G are exclusive to the hexatonic 3,4 transposition, but C and E occur simultaneously in both the hexatonic 0,1 and hexatonic 3,4 collections. Because the transpositions of the hexatonic set are cyclic, and there are only four transpositions, one may think of each interval class of the vector as a range from 0-12 where the vector explains not just how many times a given interval class occurs, but also claims a specific interval for itself. For example, the transposition hexatonic 0,1 has claimed three semitone pitch class pairs exclusively—C to C#, E to F, and Ab to A#—and no other transposition can claim them. Three semitones for each transposition four times brings the total to 12, and every semitone is now

<sup>30</sup> There is a typo in this portion of measure 4. In the left hand, the last eighth note of the first beam, there is written B#-Cb. The flat is simply placed too high, and should read Bb-C.

accounted for. Such exclusivity is not the case with major thirds, of which six occur in the interval class vector; thus, some transpositions must share.<sup>31</sup> Given these parameters, it is safe to assume that a group of at least three pitch classes can be organized hexatonically if at least two of those pitches are separated by a major third—this will be referred to as the 3-note rule.

Nevertheless, there are certain instances of hexatonicism denoted by only two pitch classes. If the interval between these two pitch classes is a semitone, a minor third, or a perfect fifth, it can only belong to one transposition of the hexatonic collection. However, with such reduced pitch content, it can be hard to determine when Rzewski is using two notes of a hexatonic collection or if those two notes belong to some other pitch class set. This two-note exception is used only when absolutely necessary, and only when all of the surrounding music is hexatonic and no other sets are being used. This exception only happens in the first and fourth movements; with the second movement, Rzewski has a tendency to use all six pitch classes of the hexatonic transposition each time it is used. Within the third movement, Rzewski employs the hexatonic subset (014) so pervasively that the two-note exception is never needed.

This score was published by Zen-On Music Co. in 1981, four years after *Four Pieces for Piano* was written. This same publishing company also holds the sole publication of *The People United, North American Ballads*, and several other works by Frederic Rzewski. Unfortunately, there are a great number of typos in the score. Each one that has been found will be explained and corrected over the course of this paper. See appendix A on page 196 for a list of errata discovered. In an interview with Rzewski, Sujin Kim, who wrote her dissertation on the *North American Ballads*, referenced what she believed to be a typographical error in the score. Rzewski

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<sup>31</sup> Of course, this is also not the case with major seconds or tritones either, as they do not happen at all within the hexatonic set.

replied, “Anyway, it could be a mistake, but I like the note the way it is...Because sometimes people make mistakes and the mistake is better.”<sup>32</sup> Throughout this paper, notational errors will be addressed, though the intention is never to place blame on the composer or the publisher.

Curiously, there is never an instruction in the score clarifying that accidentals only apply to the notes which they immediately precede, nor is there an instruction saying the contrary. While it is standard practice today to include such an instruction in new scores, it may or may not have been a standard in 1981. In his guidebook on 20<sup>th</sup> century notation, published in 1974, Kurt Stone talks about a “radically different trend which is gaining prominence and may eventually win out over [other systems].”<sup>33</sup> The trend that Stone is referencing is the aforementioned instruction of accidentals applying only to the notes they precede, and Stone’s prediction that this would become commonplace was correct. However, in all five of Elliot Carter’s string quartets (written between 1950 and 1995), not a single score includes this instruction. Additionally, Zen-On is a Japanese music publisher, and it is hard to say what the standard practice is or was in Japan.

Fig. 2.10: Accidental discrepancy in measure 8



<sup>32</sup> Kim, Sujin. "Understanding Rzewski's North American Ballads: From the Composer to the Work." Doctoral dissertation, Ohio State University, 2009. [http://rave.ohiolink.edu/etdc/view?acc\\_num=osu1262054539](http://rave.ohiolink.edu/etdc/view?acc_num=osu1262054539). p. 90.

<sup>33</sup> Stone, Kurt. *Music Notation in the Twentieth Century: A Practical Guidebook*. New York, NY. W. W. Norton and Company, 1974. p. 55

This instruction regarding accidentals is only necessary for the first piece of *Four Pieces*. This is primarily due to the extended passages of unmeasured music, and also to the intensely difficult nature of the movement. It is assumed within this analysis that accidentals only apply to the notes they immediately precede, though there are several instances where this is unclear. For example, see figure 2.10 above. The right hand plays five notes beamed as 32<sup>nd</sup> notes. These notes as written are G4-F#5-A4-G#5-F5. The gesture of two neighboring tones in different registers is pianistically simple, not dissimilar from something one might see in a score of Chopin or Liszt. If these are neighboring tones, then one would assume in a traditional score that the final F5 would be played as F#5, though with an instruction that accidentals only apply once, a pianist would not make this assumption. Emanuele Arciuli, a pianist well versed in 20<sup>th</sup> century music, plays F#5 in his recording of the first piece, and Rzewski plays an F#5 in his recording. This is not the fault of Arciuli; his mastery of the instrument is evident. Had the score included the instruction being spoken of, Arciuli would have been likely to take a second look at moments like m. 8, and would then have realized that the composer intended an F#5.

Another typo in the score can be remedied through hexatonic analysis. In figure 2.9, on the downbeat of m. 10.5, both hands play rolled chords moving in oblique motion inwards. The G#4 at the top of the left hand chord does not fit hexatonically. If the note were instead an F#4, F#5, or an A#4, the surrounding hexatonic 1,2 transposition would account for each pitch in the left hand. Looking at the pitch content of the right hand reveals an augmented fifth and a perfect fifth, moving down a minor sixth to the C it is slurred to (and connected to through hexatonic 3,4). This can be mirrored in the left hand as an augmented fifth and a perfect fourth, the inverse of a perfect fifth, by correcting the G#4 to an F#4, which then jumps up a major third (the inverse of a

minor sixth) to B $\flat$ . Therefore, it would seem that F $\sharp$  be the correct pitch in this portion of score.

It is possible that the original manuscript had G $\flat$ , in which case the publisher simply omitted the accidental, though that would prove for an odd spelling with the C $\sharp$  in the rolled chord.

Returning to the tremolo chords at the end of m. 12, Rzewski introduces the set (013478). This set will be used in different ways in each movement. In the first movement, it is used consistently with the unorthodox tremolo notation. Throughout this piece it will always be voiced as two minor chords placed a semitone apart, such as F $\sharp$  minor and F minor. The set (013478) is not a hexatonic set, but it is still closely related. Both (014589), the hexatonic collection, and (013478) are collections of three unique semitones, only in the new collection these semitones do not create an equal division of the octave. Additionally, if one were to take any pitch of the hexatonic collection and move it a major second in the direction of its semitone pair, then it would create (013478). See figure 2.11 below, where the collections on the left are hexatonic, and (013478) sets on the right. The circled notes have been altered by a whole step, shown by the direction of the arrows on the right. For example, in the first system, the C $\natural$  in the pair C-C $\sharp$  moves by a whole step in the direction of C $\sharp$ , so it becomes D $\natural$ .

Fig. 2.11: Hexatonic and (013478) connection

The figure displays six staves of musical notation. The first staff is labeled "Hexatonic (014589)" and the second staff is labeled "(013478)". The notation consists of six staves, each containing a sequence of notes. The notes are primarily half notes and quarter notes, with some accidentals (sharps and flats). Several notes are circled, and arrows indicate intervals of +2 and -2 between specific notes. The notation is written in a single system, with the staves connected by a brace on the left.

The main theme is not only present in intervallic relationships, it will often be quoted throughout the sonata. Measure 13 (fifth system of page 4) is the first instance of such a quotation, accompanied by the (013478) tremolos. The pitch content has shifted down a fifth to spell B minor and C minor. The main theme is quoted here in B minor again, so the inclusion of B minor in the (013478) tremolos is expected. With the inclusion of the main theme, Rzewski signals the beginning of the B section.

## 2. B Section (mm. 14-31)

The B sections in the first movement will always feature three things; the inclusion of a 4/4 time signature, a quotation or overt reference of the main theme, and an accompaniment using the (013478) tremolos. In measure 14, the right hand plays a reference of the main theme (see figure 2.12 below), and the left hand is unable to play the entirety of the (013478) tremolo, instead opting for a (0147) subset. However, if one includes the right hand content of m. 14, the pitches G, B, and D complete the set (013478).

Fig. 2.12: Main theme, m. 13 melody, and right hand melody from mm. 14-16

Most references to the main theme are not as clear as the quotation in m. 13. In fact, there are no more direct quotations until the end of the 4<sup>th</sup> piece (m. 40). The present melody (mm. 14-16) is the first instance of a reference to the main theme. Each piece will have one or two recognizable melodies that recur several times throughout the movement and have strong connections to the main theme, each of which will be displayed in a side by side comparison on page 170. The consistent parallel thirds in measure 14 make for an obvious connection. The melody is given in G major, and considering the pitch classes as scale degrees reveals some intervallic relationships between the main theme and the melody in the B section. As mentioned earlier, the tonality of the main theme is ambiguous, starting in D major and cadencing in B minor. In both keys, there is a descent from scale degree 5 to 3; A to F# at the end of the first slur, and F# to D at the end of the second slur (with a passing tone). This descending minor third is mirrored in the B section melody three times with pitches D to B.

This main theme reference is stated again in measures 18-21, this time given in the D# locrian scale and developed, though the same general contour remains. The accompaniment abandons the tremolo figure and instead moves to pianissimo arpeggios, again in full (013478)

Commented [ME3]: Why Locrian??

Martschenko

voicing. These are spelled in two minor triads a semitone apart again, and on every other arpeggio the order of the triads flips. For example, on beat one the left hand plays E minor over D# minor, and on beat two plays D# minor over E minor (mm. 18-21). This consistent flipping gives the arpeggios a truly haunting sound, one that prepares the intense polyphony to follow.



Fig. 2.13: Hexatonic polyphony in mm. 22-28

Commented [ME4]: Larger measure numbers  
UPDATE: Are these good?

The image displays a musical score for hexatonic polyphony in measures 22-28. The score is written in 4/4 time and consists of five staves. The notation includes various hexatonic sets, each enclosed in a colored box and labeled with a hexatonic set name: Hex 0,1 (purple), Hex 1,2 (green), Hex 2,3 (blue), and Hex 3,4 (red). The score is annotated with arrows and circles, indicating specific musical features and relationships between the staves. A red 'X' is placed over a note in measure 22. The score is divided into two systems, with the first system covering measures 22-24 and the second system covering measures 25-28. The second system includes a trill (tr) and a triplet (3) in the upper staves. The annotations include yellow arrows pointing to the right and orange circles, likely indicating specific musical features or relationships between the staves.

Throughout the sonata, Rzewski is diligent about stem directions, and always makes it clear to the performer when the music is in counterpoint. Strange harmonies, difficult rhythms, and confusing phrases can all be made much simpler when looking at the music as if it were polyphonic. Figure 2.13 above divides the two hands into five distinct voices (voice 4 does not enter until m. 23, and voice 3 does not enter until m. 24). When looking at the score in this way, one cannot help but see a string quintet, with the active first violin in the top staff, counterpoint in the second violin, and slow moving accompaniment in the viola and cellos. This section is full of beautiful gestures, soaring melodies, and fantastically rich harmony.

The opening two measures (mm. 22-23) give each “instrument” a melody of their own to play. The top staff receives many descending minor thirds (m. 22 pickup to beat 3 F $\sharp$ -D $\sharp$ , pickup to m. 23 B $\flat$ -G, etc.) as the melody did in the first two phrases of the B section (mm. 14 and 18).

In m. 23, on the “and” of beat 2, the D $\flat$  does not fit in the surrounding hexatonic 2,3

transposition, signified by the red X. Notice that the second staff plays the same  $D\flat$  at the same moment, where it belongs to the hexatonic 0,1 transposition. This also accounts for the odd spelling of  $B\sharp$  on beat 2 to  $D\flat$  (as opposed to  $C\flat$  to  $D\flat$ )

The (013478) arpeggios return in the left hand of m. 24, though they no longer oscillate between just two minor triads, and instead move to many different transpositions. These arpeggios have been given to the bottom three staves in figure 2.13. In doing so, one can trace hexatonic lines in these individual voices. A problem arises on beat 2 of m. 25 when the pitches no longer fit hexatonically, but we will find that these non-hexatonic pitches are still related to the hexatonic labels given. Looking at the bottom staff in m. 24, the pitch content is  $B-C-E\flat-E\sharp$ , forming the (0145) hexatonic subset. The next two pitches are  $D-C\sharp$  (m. 25 b. 2-3), which when added to the (0145) tetrachord complete the fully chromatic (012345) set. Every non-hexatonic pitch in this section will work in a similar manner—a (0145) tetrachord will be either preceded or followed by semitone pair which will fill in the (23) dyad of (012345). The semitone pair is shown in figure 2.13 with yellow boxes, accompanied by an arrow pointing in the direction of the tetrachord it is attached to. Rzewski does not use this technique anywhere else in the sonata, making this section unique in character and feeling.

The 64<sup>th</sup> note arpeggio in beat 4 of m. 24 has been left out of figure 2.13. It is not hexatonic, nor does it relate to the (012345) technique mentioned or to the (013478) set. One must remember that although Rzewski has created these pieces with great theoretical practice and thought, his goal was chiefly to create a work of art, and expression will always trump anything else. In the same vein, the upper note of the right hand trill in m. 26 breaks the pattern of hexatonicism followed by the (23) dyad. But what was important to Rzewski was the expression of the trill, not maintaining the theoretical pattern.

The entire B section thus far has been played in 4/4 time. Because of this regularity, the accidentals have been particularly cautious, often being given courtesy accidentals and negating accidentals from a previous moment in the bar. Because the score does not specify whether or not accidentals apply to notes throughout a bar, a pianist may hesitate at certain points were it not for the careful use of accidentals. One such place is the right hand F5 on the last sixteenth note of m. 26—the F# from the downbeat may or may not still be in effect. The correct pitch is indeed F#, and both Arciuli and Rzewski play it as such in their recordings.

The B section returns to free time (m. 28) and continues the hexatonic organization. The beaming is reminiscent of the A section in that a single beam runs through the middle of the score, connecting both hands. This music can be thought of as one voice moving all across the keyboard, usually moving in pairs of parallel thirds (m. 28.5, pg. 6 third system). Twice the stream of parallel thirds is interrupted by a rapid arpeggio (m. 29). After the second arpeggio, the music briefly quotes the main theme in the highest register of the piano, transposed to D minor (see figure 2.14 below).

Fig. 2.14: Hexatonic organization of mm. 29.5-31

The figure shows a musical score for three measures (m. 29.5, m. 30, and m. 31) with various hexatonic labels and performance markings. Measure 29.5 is marked "Fast, gradually ritard." and "f poco a poco dimin.". Measure 30 is marked "Slow" and "p". Measure 31 is marked "pp freely" and "J = ca. 40". The score includes various hexatonic labels such as Hex 1,2, Hex 2,3, Hex 3,4, Hex 0,1, and Hex 1,2, along with performance instructions like "una corda" and "Ped.) gradually release soft pedal".

After the main theme quotation, the music returns to hexatonicism and opts for parallel tenths as opposed to thirds (m. 30). These tenths force the pianist to play thoughtfully and with great caution, aiding Rzewski’s simple instruction of “slow.” Once again, Rzewski is using transpositions of zero common tones—hexatonic 2,3 and 0,1 in the right hand, and hexatonic 1,2 and 3,4 in the left hand. After the downbeat of m. 30, the left hand only plays two notes at a time, consistently in a perfect fifth (or fourth). This alone is generally not enough to constitute the designation of a hexatonic label, as it does not fulfill the 3-note rule. However, if one were to take each of the left hand hexatonic 1,2 pitches, the entire hexatonic 1,2 scale is filled out with

no pitches missing or repeating. The same occurs with the hexatonic 3,4 pitches, so it can be agreed that hexatonicism is present in the left hand.

A hexatonic analysis of m. 31 is possible, but it would not be beneficial as it is not what the listener will hear. Aided by the constant grounding by the repeated bass notes and the triads in the right hand, this music is heard in A minor. The last two right hand chords form a V7 chord, and the specific D-E voicing prepares the return of the wedge motif in m. 32, and likewise the A' section.

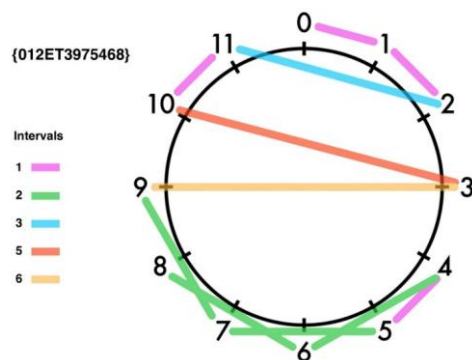
### **3. A' Section (mm. 32-38) and B' Section (mm. 39-43)**

The bass moves to a tremolo on A#0 while the right hand repeats the wedge motif in its original register and voicing (m. 32). Together, these push toward the aperiodic tremolo notation explained on page 21. The first four pitches added to the ever increasing tremolo are, in order, A#-B-A-C. This forms the semitone cluster (0123) set, and also foreshadows a texture that will be heard in the 4<sup>th</sup> movement. See measure 2 in figure 2.15 below for comparison. Not only are these pitches played in the exact same register, they are played in the same order and are given their own performance technique which results in a “cloudy and indistinct” character, similar to the irregular tremolo in measure 33 of the first movement.

Fig. 2.15: 4<sup>th</sup> piece mm. 1.5-2

As mentioned before (see p. 21), the rapid passages that begin after the tremolo in measure 33 are comprised of an additive 12-tone row. Once the row has successfully added all 12 pitch classes, it forms the row {TE0981753246}. Rzewski does not often use tone rows in *Four Pieces*, and when he does it is even more rare that the row will be repeated beyond the section or even the phrase in which it is first seen. None of the rows are seen in more than one movement, and they are not connected to each other in any major ways. What is true of Rzewski's rows, however, is his careful symmetrical crafting.

Fig. 2.16: Intervallic symmetry in the A' section tone row



The figure above is intended to show where Rzewski uses specific intervals around the pitch class clock. The row has been transposed to prime-0. The legend on the left ascribes a color to an interval, given in pitch class intervals. While the tone row is not congruent between any two sides, it certainly has specific organization. The top half of the clock features a greater number of semitones while the bottom half has several whole steps. The clock splits itself down the middle with two large intervals, a perfect fourth and a tritone. It is beneficial to follow the path of the row, starting with 0, to see how the interval content evolves over the course of the additive tremolo and passagework in measure 33. Similarly, it is useful to look at the row taking off one pitch at a time from the beginning, as this is also what happens to the row over the course of measure 33.

Measures 34 to 37 return to the intense hexatonicism of the opening A section (mm. 3-12), though much faster paced and more frenetic. There are two significant typos in the score during this passage. First, m. 35 is given a time signature of 4/4, but this is never negated and would be assumed to remain in effect past m. 35, though it does not. Secondly, in the right hand of m. 37, there is a bass clef between the first and second beams, and there is another bass clef between the sixth and seventh beams—the second bass clef would imply a negation of a treble clef, but no treble clef exists to negate. A performer would likely notice this during a run-through, but the question of where the treble clef is meant to go may be more difficult to answer. The solution can be found through hexatonic analysis of the slurs Rzewski has written into the score.





Fig. 2.18: Hexatonic organization of the B' section (mm. 39-43)

The musical score for the B' section (mm. 39-43) is presented in two systems. The first system (mm. 38-40) features a right-hand part with a tremolo and a left-hand part with a tremolo that gradually diminishes. The tempo is marked 'Very long (1 = ca. 90)' and 'Very Slow (♩ = ca. 60)'. The dynamic range is from *fff* to *pp*. The second system (mm. 41-43) includes a 'cut off abruptly' instruction and a 'staccato, Catch resonance with pedal' instruction. The score is annotated with several hexatonic structures: Hex 1,2 (green), Hex 3,4 (red), Hex 2,3 (purple), Hex 0,1 (pink), and Hex 2,3 (blue). The time signature is 4/4.

Just like the B section earlier in the movement (mm. 14-31), the B' section is marked by three characteristics—a time signature of 4/4, quotations and references of the main theme, and the (013478) tremolo. The B' section is very short, perhaps due to Rzewski's instruction to "cut

off abruptly.” But still, it serves as a great summary of the work. The indicative descending minor thirds are given in the right hand, now transposed to B $\flat$  major. This is accompanied by the (013478) tremolos, here spelled as an E $\flat$  minor chord over D minor. The melody meanders hexatonically (m. 41) but ends up back in B $\flat$ . The meandering melody is comparable to the melody in the first B section (mm. 14-21), though here it is voiced in first inversion triads as opposed to parallel thirds. The progression of the main theme to the parallel thirds of the B section then to the parallel triads of the B’ section is a clear lineage to see. This is the beginning of the amazing thematic development Rzewski crafts in *Four Pieces*. The key of B $\flat$  is used many times throughout the sonata, especially in the 4<sup>th</sup> movement. Its relationship to the overall key of B minor is that of an enharmonic leading tone, and Rzewski will use these two keys side-by-side numerous times throughout the sonata. Starting in m. 42 and continuing until the abrupt stop are the Messiaen-like chords descending from the topmost reach of the keyboard to the lower end. These chords are not obviously hexatonic, but still connections can be made to the scale. As the composer has done many times in the first piece, the transposition of zero common tones is being used, again with hexatonic 0,1 and 2,3. Rzewski tends to favor this pair over hexatonic 1,2 and 3,4, perhaps because hexatonic 2,3 includes the triad B minor within one transposition. They are difficult to see in the original score, but lines of hexatonic 0,1 or 2,3 can be found weaving between the pianists hands as they cascade down the keyboard. The left hand ends on the pitches B-D-F $\sharp$ -A $\sharp$ , in the second octave of the keyboard, exactly the same pitches and register that will start the second movement of the sonata.

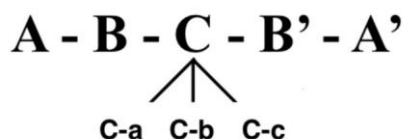
## Chapter III

### Second Piece

#### A. Form

For most listeners, this movement sounds typical of a scherzo movement, comparable to many Beethoven movements. The first few systems see “light and bouncy” arpeggiated triads separated by a two octave gap between the hands, and the “reflective” major seconds in each hand, separated now by major sevenths and minor ninths to form the semitone cluster (0123), the prominent tetrachord spanning the entire sonata. With the juxtaposition of varied performance instructions and harmonies, immediately there is a humor and an energy that will carry throughout this movement. And while the overall effect of a scherzo can be heard in just the character of the piece, the musical form follows the ABCBA style, indicative of scherzo movements (see figure 3.1 below). The outer A sections consist of mainly the two opening ideas already mentioned—bouncy triads and reflective semitone clusters. The B sections borrow from previous pieces by Rzewski and perhaps inspiration from other musicians, as well as wholly different harmonies. The center section is turbulent, unpredictable, features rolling waves, and is undoubtedly virtuosic writing. Before getting into the richness of compositional process that runs through every measure of this piece, it is beneficial to walk through each section of the work and familiarize ourselves with the content it contains.

Fig. 3.1: Form of the second piece and chart showing measure numbers



Formal Section and Transitions	Measure Numbers
A Section	mm. 1-59
B Section	mm. 60-108
C Section	mm. 109-152
C-a Subsection	mm. 109-118
C-b Subsection	mm. 119-142
C-c Subsection	mm. 143-152
B' Section	mm. 153-201
Transition	mm. 195-201
A' Section	mm. 202-248

As mentioned above, the A section (mm. 1-59) starts with the juxtaposed triads and semitone clusters. It is no coincidence that the first triad is B minor, the supposed “tonic” of this not-so-tonal sonata. Looking at the score, one will find various major and minor triads arpeggiated in these first few measures—B minor, Eb major, F minor, A major, and so on. This will be explored in specific detail later on, but it is important to note that when looking at pairs of triads, these are incarnations of hexatonic pitch collections, the pitch collection that drives this sonata more than any other force. See page 23 for an examination of the properties of the hexatonic scale.

The similarities to Beethoven are felt immediately when one listens to the second movement. The texture of single-voiced parallel octaves between the two hands is ubiquitously Beethovenian, seen in the openings of the 2<sup>nd</sup>, 5<sup>th</sup> (second movement), 7<sup>th</sup>, and 23<sup>rd</sup> sonatas, as well as countless other places in his music. Beethoven’s use of scherzos is also famous, and his

ability to convey humor in scherzos like the second movement of “The Hunt” sonata and the fifth movement of the 14<sup>th</sup> string quartet, among many others. Compare the first three phrases of scherzo from “The Hunt” (see fig. 3.2 below) to the first three phrases of the second movement from *Four Pieces* (mm. 1-13).

Fig. 3.2: First three phrases of Beethoven’s scherzo from sonata no. 18<sup>34</sup>

**Scherzo**  
**Allegretto vivace**

<sup>34</sup> Beethoven, Ludwig van. *Klaviersonaten, Band II*. G. Henle Verlag München, Deutschland. 1980.

Beethoven presents the first theme of the A section of his scherzo immediately, accompanied by a staccato bassline arpeggio. The first phrase lasts four bars, and then repeats itself before an authentic cadence in m. 8. Rzewski uses the exact same formula in his scherzo, presenting the hexatonic arpeggios twice in two four-bar phrases, the second of which has a bit more action so as to develop the music forward. The third phrase of the Beethoven then uses what Arciuli calls “sparse notes,” where the hands move in parallel octaves, playing staccato, and starting in measure 14 playing the ascent of C-D $\flat$  before an arpeggiated descent to the dominant, all the while maintaining the staccato and playful nature of the opening section. Again, Rzewski uses a similar strategy, using the “reflective” (0123) semitone clusters. These semitone clusters also ascend (mm. 9-12), and even fall down a perfect fifth in measure 13. None of this is to say that Rzewski took this specific Beethoven movement and rearranged it in his own style, it is simply a tool with which one can notice the influence Beethoven has on Rzewski as a composer.

The hexatonic arpeggios and “reflective” semitone clusters continue through measure 27. A brief serial passage in m. 28 is the first break away from the hexatonicism or the (0123) sets, though both return in measure 33 with the introduction of large extended chords. The serialism returns in m. 42, where the arpeggios grow into dense clusters in both hands, slowly thinning out over four measures (m. 47-50). This is the first instance in this piece of Rzewski’s masterful blending of atonality with tonality, as the harsh clusters melt into a phrase entirely diatonic to B minor. After an unresolved cadence, the arpeggios and semitone clusters return once more to close out the A section.

Fig. 3.3: Beginning of the B section (mm. 60-67)

The musical score shows two staves. The right staff (treble clef) begins with a trill on D4 and E4. The left staff (bass clef) begins with a trill on Eb3 and Db3. The score includes dynamic markings: *pp* at the start, *mp* in the middle, and *ppp* towards the end. Performance instructions include *una corda* and *Ped. sempre*. A note above the first staff indicates "(continue trill thru next line)".

The B section (mm. 60-108) begins with a rather difficult pianistic gesture. The left hand trills Db and Eb while the right hand trills D and E, forming the familiar (0123) semitone cluster. While maintaining this trill, the left hand plays alternating G's and Eb's below the trill, while the right hand plays a curious melody, stretching up to a 10<sup>th</sup> above the trill (m. 68). The trills change pitches, but the overall texture continues before shifting entirely in m. 81, bringing in a new texture that some Rzewski aficionados may recognize. The right hand continues with the same melody from the opening of the section, now without the trill accompaniment. However, the left hand plays a wayward bassline, moving only in a repeating pattern of a perfect fifth and a minor second. This pattern is nearly identical to one Rzewski uses in the 27<sup>th</sup> variation of *The People United*, the only differences being that the variation will occasionally break off the pattern on a downbeat, or that the right hand material is also using the pattern.



Fig. 3.4: Bassline of *The People United* var. 27 mm. 5-14 (left) and mm. 80-94 of the 2nd piece

**Commented [ME5]:** Var. 27 looks awful needs a much better scan but may not have time to do this

UPDATE:

I went and got it scanned in the library but it still looks like this.

Michael Schell<sup>35</sup> is a journalist and composer who states in his discussion of *The People United*, Var. 27, “No. 27 begins in a rhetorical style before moving into a funky Herbie Hancock-like episode that digresses from the theme for two minutes.” I talked to Mr. Schell about this comment, particularly about his connection to Hancock, and he shared with me this clarification:

Regarding the Hancock similarities, I was thinking of 1960’s Blue Note period Hancock, as inflected by his time in the Miles Davis quintet of that decade. Albums like *Maiden Voyage* and *Empyrean Isles*, in the funk and R&B inflected post-bop period (but not the more commercial work that came later). I didn’t necessarily have specific tracks in mind, but I think the similarities with his solo toward the end of “Survival of the Fittest” or the rising F-C-Bb-C lick in “Cantaloupe Island” (that anticipates Rzewski’s E-B-D-E) are pretty clear.<sup>36</sup>

The connection to “Survival of the Fittest” is a strong one. Hancock’s solo starts at around the six minute mark on the recording,<sup>37</sup> and at times the flourishes in the right hand seem to parallel the gestures seen in the right hand of this variation of *The People United*. There is not a published transcription of Hancock’s solo available, making it hard to draw specific conclusions,

<sup>35</sup> Michael Schell wrote an article called “Frederic Rzewski at 80: Directions Inevitable or Otherwise,” published on “Second Inversion,” a website for articles or podcasts exploring classical music that lies beyond the common practice period.

<sup>36</sup> Conversation with Michael Schell, Oct. 25, 2020. In his final sentence, Mr. Schell says “E-B-D-E,” though I believe he meant to say E-B-C-G, as he spoke about the perfect fifth-semitone bassline that I bring up later in his email, and this is the first transposition of the bassline in Rzewski’s var. 27 (not pictured in the figure).

<sup>37</sup> Hancock, Herbie. *Maiden Voyage*. Blue Note Records, Los Angeles, CA. 1965.

but depending on how strongly a listener feels the connection of Hancock's solo to Rzewski's 27<sup>th</sup> variation, arguments could be made further to find the connection of Hancock to the second piece in Rzewski's *Four Pieces*.

Continuing in measure 81, this patterned bassline alongside the right hand melody drives the music through expansions and thematic developments. The pace quickens as eighth notes become eighth note triplets, and the line comes spiraling down to cadence in E minor in measure 108. Rzewski will revisit the same leisurely bassline and soaring right hand melody in m. 153 within the B' section.

The next two five-measure phrases (mm. 109-113 and mm. 114-118) begin the center C section (mm. 109-152) of the work, which is divided into three subsections. The C-a section (mm. 109-118) uses an ostinato of alternating ascending and descending triplet patterns of perfect fifths, which again comes crashing down to the bottom of the keyboard in m. 118, as compared with m. 108. Following this, the C-b section (mm. 119-142) begins with both hands playing open fifths rapidly, giving the effect of waves tumbling and running over each other, growing to form larger waves (mm. 119-138). A brief return of the melody from the B section (compare m. 81 to m. 139), now transposed up a tritone and doubled in minor sixths brings a calm to the storm before being thrust into the most difficult section of the piece for the performer, the C-c section (mm. 143-152). Starting in the middle of the keyboard, triplet figures with accentuated pitches in both hands eventually climb to the top of the piano, all the while growing in volume and density until the climax in measure 153 that begins the B' section (mm. 153-201).

The B' section begins with two phrases of de-escalation (mm. 153-166), the melody is drawn out and harmonized with an E minor triad underneath an E $\flat$  minor triad (m. 167), the

same (013478) collection used so frequently through the opening movement of the sonata. The next few phrases all recall the first piece in the sonata, using several techniques and harmonies used in the first movement, and a brief transition (mm. 195-201) brings back the hexatonic arpeggios and semitone clusters of the A' section (m. 202). The first half of this closing section unfolds in a near-perfect inversion of the opening A section. Once again, the music gradually melts into tonality (m. 238), this time a bit more extended as the end of the movement approaches. Whereas the opening A section left the B minor phrase unresolved, Rzewski completes the theme, ending on octave B's at the bottom of the keyboard (m. 244). Remnants of gestures in the theme lead to one final fortissimo cadence centered on B. The last two measures are an afterthought, once again using the hexatonic arpeggios and semitone clusters, leaving the piece definitively over, yet open-ended and ready for the third movement.

The second movement is the fastest, the shortest, and in many ways the most comical of all of the movements. Keeping with the character of a cadence, the last two measures (mm. 247-248) are heard as a joke. After such a serious cadence in measure 246, some audience members might chuckle after such a spurious ending to the movement as a whole.

## **B. Harmonic Analysis**

### **1. A Section (mm. 1-59)**

Now understanding the form and the major harmonic proponents of the piece, the entire movement can be dissected. The movement opens with the arpeggiated triads mentioned previously, here moving in parallel octaves, two octaves apart. There are several things to note in just the first two systems. The only intervals used during these arpeggiated sections are major thirds, minor thirds, and an occasional major seventh. Most frequently, the melody consists of alternating major and minor thirds, but when an interval does occur twice in a row, it will always

happen at or near a point of change. See figure 3.5 below with attention drawn to measure 1 and its first two triads, B minor and E $\flat$  major. Here the interval succession consists of a minor third (B-D), a major third (D-F $\sharp$ ), and another major third (F $\sharp$ -B $\flat$ ), and at this point Rzewski changes the direction of the line. At first glance, it seems that this was instead done to maintain thirds as opposed to sixths, but looking at the following music it is clear that Rzewski uses sixths as well, even when not separated by a rest (see E $\flat$  to C in m. 1). The sixths are often used to keep the relative tessitura of the melody from expanding too much, and Rzewski will consistently do this throughout the movement. In regards to the infrequent major sevenths (see F to E in m. 1), their purpose is not so concrete. They are always preceded directly by a rest, part of what makes this melody “bouncy” as Rzewski denotes it.

Fig. 3.5: Hexatonic grouping of the first two systems (mm. 1-8)

II

Light+ Bouncy ( $\text{♩} = \text{ca. } 80$ )

Using this visual, it is clear to see how Rzewski uses the hexatonic transpositions, and how he is able to switch between them, using specific transpositions. The first line is an alternation between hexatonic 2,3 and hexatonic 0,1, meaning the overall pitch content shifts up

and down a major second. The second line uses all four transpositions in succession. This time, Rzewski does not only choose major and minor triads, there are a number of augmented triads and extended harmonies. There are also no rests in this phrase, giving the melody a bit of seriousness, perhaps comically. It is important to see that no notes have been left out, each hexatonic transposition is realized fully before moving on. The second movement is the only movement in which Rzewski consistently uses the entire hexatonic collection, while in movements 1, 3, and 4, Rzewski more frequently uses fragments of different hexatonic collections. In those movements, the 3-note rule for determining the hexatonic transposition is used, but in this movement it is not necessary.

There are other ways to analyze these opening measures. The intervallic route which was explored first could be expanded upon more. The root of each pair of triads are major thirds apart (but as noted earlier, this is just a byproduct of the hexatonic scale). There is a “registral inversion” of the first four triads as opposed to the last four triads in mm. 1-4; for example, the initial B minor triad is ascending while the B major triad in m. 2 is descending, and so on. There is a pattern of alternating chord qualities, minor-major-minor-major (Bm-EbM-Fm-AM), and then during m. 2 the pattern flips to major-minor-major-minor (BM-Gm-FM-C#m), but this is not consistent with the second phrase. It seems evident that Rzewski is not only using the hexatonic collections here, but purposefully voicing these chords in triads. While it is obvious here in the opening, it will not be as obvious in later sections of the piece. But because the composer is consciously making the choice to use the hexatonic scales here, it is safe to assume he is doing the same later on when it could be more debatable.

The measures on the tail end of each phrase show the prevalent (0123) set (m. 4 and 8). Their organization into major seconds is curious given the absence of that interval in the

hexatonic set. In measures 4, 7, and 9 the first sounding chord has the normal form [5,6,7,8], though in measures 4 and 9 the F is in the right hand, and in measure 7 the F is in the left hand, in a sort of “post-tonal root position.” A bit of thematic development in measure 7 leads to the third phrase which consists solely of the “reflective” (0123) sets articulated in an emphasized long-short rhythmic fashion. Here, the cluster sets descend in each measure, though while the right hand descends by a tritone, the left hand falls down a minor sixth. This means that each downbeat sustained chord has the “lowest” pitch-class in the right hand, while the staccato chord has the lowest pitch-class in the left hand, effectively meaning the staccato chords are in “root position.” This minor difference does more for the sound than one might think, especially given the context of the “reflective” instruction. The sustained chord somehow feels more weightless while the “root position” feels grounded. This is again aided by the transposition of each measure, first moving up by a whole step, then a more urgent half step, and finally up a wider whole step for a new articulation (mm. 12-13), staccato and accented, eventually falling down a perfect fifth in both hands, the interval right between their previous lengths of motion (measures 9-11). These last two chords also have their lowest pitch-class in the right hand, adding to the weightlessness, and bit of sarcastic drama.

Measure 14 begins two phrases built in a very similar manner to the opening two phrases, and both use the same alteration of hexatonic 2,3 and 0,1. In essence, the hexatonic grouping of mm. 14-16 mirror mm. 1-3. Despite starting m. 14 on the same B as m.1, Rzewski chooses different triads within the same hexatonic sets. For example, the first two triads in m. 14 are B major and G minor, both of which still fit within and complete hexatonic 2,3, but previously B minor and Eb major were chosen (m. 1). And in fact, this same relationship has been chosen for all of the triad pairs. The minor triad from the first phrase has changed to a major triad on the

same root, and the major triad from the first phrase has moved up to its mediant (for example F major to A minor). The only other difference between these phrases is that the far-reaching major seventh has been replaced with a perfect fourth. This could be a registral choice, and the next phrase may solidify that reasoning.

Fig. 3.6: Hexatonic grouping and triad pair flipping, mm. 14-22

The phrase starting at measure 19 continues the alternation of hexatonic 2,3 and 0,1, just as was done in mm. 1-3. Unlike the two phrases in mm. 4-7, Rzewski uses hexatonic 2,3 and 0,1 all throughout the music in the figure above. Once again, he has chosen to voice these hexatonic arpeggios in pairs of triads, such as B major and G minor in the first hexatonic 2,3 transposition. This pair has been labelled “A,” and likewise the next three pairs have been given a label within a black box—A-B-C-D. Starting in measure 19, Rzewski uses these same triad pairs in a different order—C-D-A-B. Rzewski has also changed the pattern by starting the phrase with the (0123) semitone cluster which usually ends the phrase. Comparing figure 3.5 with figure 3.6

shows Rzewski's ability to take a small amount of content and manipulate it greatly so as to create new and fresh content.

The next phrase (mm. 23-27) is an inversion of the "reflective" semitone clusters of before (m. 9), the only difference being the last chord marked fortissimo sforzando. The following section (mm. 28-35) appears to be a continuation of the hexatonic arpeggios, but taking a closer look reveals it to be vastly different. As always is the case with analyzing Rzewski, there are several ways in which this passage can be analyzed—intervallically, contrapuntally, even tonally.<sup>38</sup> However, this passage is chiefly serial. See figure 3.7 for the row as it is first heard, given at prime-4, in the left hand. The numbers between pitch-classes show the interval content, given in pitch-class intervals. The intervallic succession consists of only major and minor thirds, the significance of which is obvious given the overwhelming use of thirds so far in this movement.

Fig. 3.7: Twelve-tone row starting in m. 23, internal pitch class sets

**Prime-4: {E<sub>3</sub>G<sub>4</sub>B<sub>3</sub>D<sub>4</sub>F<sub>3</sub>D<sub>3</sub>C<sub>4</sub>A<sub>b3</sub>F<sub>4</sub>A<sub>4</sub>C<sub>3</sub>B<sub>b</sub>}**

**Prime-0 {037T2E841596}**

**Prime-0 {037T2E841596}**

<sup>38</sup> The pitch classes are still outlining triads or seventh chords, and many of the roots of these chords are separated by thirds.



Below the row, two charts are given showing the internal pitch class sets of the tone row, now transposed to prime-0. The chart on top is divided into ten trichords, and the chart below is divided into nine tetrachords. In the trichord division, we find many familiar sets; (037) which forms a major or minor triad, (014) which is a hexatonic subset and is used extensively in the other three movements, and (048), the augmented triad that builds the hexatonic scale. The only trichord that does not fit in the hexatonic collection in (036), the diminished triad. Though it does not have hexatonic connections, it obviously has triadic and third relations. Looking now at the tetrachords, not as many familiar chords are seen, but still several hexatonic subsets appear, such as (0158), (0148), and (0347).

Fig. 3.8: Tone row usage in mm. 28-34

The image displays a musical score for piano, measures 28-34, illustrating the usage of a tone row. The score is in 5/4 time, starting with a piano (*p*) dynamic and a crescendo (*cresc.*) marking. The tone row is presented in two systems. The first system (measures 28-31) shows the tone row in its prime form (Prime-4) and its retrograde (Retrograde-0). The second system (measures 32-34) shows the tone row in its prime form (Prime-0) and its retrograde (Retrograde Inversion-0). Brackets and arrows indicate the specific transformations: Inversion-4, Retrograde Inversion-2, Inversion-8, and Retrograde Inversion-0.

The brackets in figure 3.8 show which incarnation of the tone row is being used. Brackets underneath the staff pertain to the left hand,<sup>39</sup> and brackets above the staff relate to the right hand. Any exceptions to this rule are shown by arrows pointing to the row to which they belong—for example the Eb4 in m. 32 belongs to both the right hand’s prime-0 row and the left hand’s inversion-8 row, and the B44 is a part of only the right hand’s prime-0 row. This same prime-0 row starting in m. 32 appears as if it is cut off by the accented tertian structures (m. 33), but in fact the row is fulfilled by the chord on the downbeat, which extends all the way down to the F $\sharp$  in the bottom staff.

Fig. 3.9: Linear and vertical grouping of the “laughing chords” mm. 33-35

The image shows a musical score for measures 33, 34, and 35. The score is written on four staves. The first two staves are in treble clef, and the last two are in bass clef. The music consists of chords. Colored brackets group the notes into hexachords: Hex 0,1 (purple), Hex 1,2 (green), Hex 3,4 (red), and Hex 2,3 (blue). The brackets are placed both above and below the staves to show linear and vertical groupings. Measure 33 starts with a purple bracket (Hex 0,1) and a green bracket (Hex 1,2). Measure 34 has a red bracket (Hex 3,4) and a blue bracket (Hex 2,3). Measure 35 has a red bracket (Hex 3,4) and a blue bracket (Hex 2,3). The notes are mostly quarter notes and half notes, with some accidentals.

<sup>39</sup> There is a typo in measure 29. The F $\sharp$  on beat two of the left hand should be an F $\natural$ , the natural sign has simply been left out.

Large extended structures spread across both hands move in parallel motion, all the while speeding up, sounding like laughter or mockery. See figure 3.9 above for an expansion of each individual voice in these chords. The figure above shows the chords moving hexatonically linearly and vertically. For example, the first six pitches in the top two voices are contained within hexatonic 0,1 (shown with the label above the staff), and at the same time the very first pitch of each voice is contained vertically within hexatonic 0,1 (shown with the label below the staff). Each of these chords is an augmented triad with a major seventh and a #9 extension, or speaking in jazz terms as Rzewski might be inclined to do, the first chord is a FM#9#5, forming the hexatonic subset (01458), and likewise for the rest.

Additionally, while the first set of chords run their course, the left hand is also playing the retrograde inversion-0 of the tone row from the previous phrase. The phrase closes (mm. 35-37) with a return to the 2-part hexatonic arpeggio counterpoint, interrupted by a new voicing of the same (0123) set (m. 37 beat 2). This voicing is not used often in the second movement, but is used extensively in the other three pieces. It is characterized by a large interval, usually either a major seventh or a minor ninth, with a major second on either end. This is a pianistically simple voicing, as the thumb can usually cover both notes of the major second at the same time, though such is not the case in this particular instance.

The following two measures (mm. 38-39) continue with the hexatonic melodies, though the vertical hexatonic chords have stopped. The two hands are metrically displaced, with the right hand playing every other eighth note, and the left hand not so consistent. However, when the hands do play together, they continue to form stacks of thirds. In a sense, the occasional lining up calls back to the 11<sup>th</sup> variation of *The People United*. In this variation, the music is

meant to be played “Like fragments of an absent melody – in strict time”<sup>40</sup> and indeed the music is sparse, including a few “coincidental” moments where the hands play together and form something greater than the individual parts. This variation also includes slamming the keyboard lid, a short vocal cry, and whistling, so perhaps the connection is not so similar in the mind of the composer. Regardless of whether or not this was his intent, Rzewski has diligently kept the common theme of moving melodically and harmonically by thirds throughout the piece, and that connection remains. Even when the harmonies or voicings seem foreign, lineages of thirds can still be traced through each voice, save the few notable exceptions that have been mentioned.

Fig. 3.10: Variation 11 of *The People United* mm. 1-18

Var.11  
Tempo 1 (♩ = 106) Like fragments of an absent melody - in strict time

*f* *mf* *p* *mp* *mp*

*una corda pp* *tre corde p* *mf* *pp* *mp* *p* *mp*

*pp*

(optional) slam keyboard lid (optional) whistle

*f* *mp* *pp* *f* (optional) short vocal cry *pp*

*mf* *p* *pp*

<sup>40</sup> Rzewski *The People United Will Never Be Defeated!* p. 23

Fig. 3.11: Tone row usage in mm. 42-46

The image shows a musical score for two systems, measures 40 and 44. The first system (m. 40) is in piano (p) and features a 3/8 time signature. It contains two hexachords: 'Hex 3,4' (highlighted in red) and 'Hex 1,2' (highlighted in green). The second system (m. 44) is in piano-pianissimo (pp) and features a 5/4 time signature. It contains several tone row forms: 'Inversion-11' and 'Retrograde Inversion-3' in the right hand, and 'Prime-11' and 'Prime-7' in the left hand. A 'cresc.' marking is present in the left hand of m. 44. A note in the right hand of m. 46 is circled in red, with an arrow pointing to it from the text below.

A brief callback to the hexatonic arpeggios and semitone clusters (m. 40) prepares the music for the same twelve-tone row heard earlier. The same notation applies to figure 3.11 as it did in figure 3.9. Once again, it appears as if the inversion-3 row in the left hand of m. 46 ends early, but it is completed by the chord on the downbeat of the following measure (though there is an additional C $\sharp$ ). There is a wrong note in the second eighth note of m. 46, in the right hand. The tone row calls for a B $\flat$ , but is given a C $\sharp$ , which should have been written as C $\flat$ . It is questionable that Rzewski would use such a spelling in a passage of completely atonal music, but given Rzewski's inclination to spell out triads throughout the entire movement, it makes sense that he would have spelled an A $\flat$  minor chord. This could have possibly been resolved by the use of a G $\sharp$  minor chord, but Rzewski has been using flats in the surrounding music. It is furthermore understandable that the publishing company interpreted the C $\flat$  as a mistake, due to

the tendency to use simple spellings in atonal music, and therefore corrected it to C<sup>b</sup>.

Nonetheless, the correct pitch is a C<sup>b</sup>.

Fig. 3.12: mm. 47-52

The phrase starting in figure 3.12 is abrasively filled with clusters in both hands. Just looking at these six measures it becomes apparent that the end goal of this phrase is to end up in B minor, and that the measures preceding are gradually thinning out and working their way to the tonality. The manner in which Rzewski reaches that goal is pianistically, compositionally, and theoretically remarkable. Three components that make this “atonal to tonal modulation” happen: the topmost melody in the right hand, the arpeggiated bassline, and the cluster chords within the inner voices. Characteristic of Rzewski’s style, each of those components have several aspects of their own.

The right hand melody is the simplest to see, and helps to carry the listener through the phrase. Ignoring the first measure (m. 47), it becomes easier to see that this is actually the main

theme of the sonata first introduced before the first movement. The rhythm of each measure may be written differently and contain differences in the placement of rests, but they still contain the same syncopated pattern. This melody continues with the tonal section that follows (mm. 52-55). Now returning to measure 47, some semblance of contour can be seen. Extracting the six pitches in the melody on this measure shows that they are all part of the hexatonic 1,2 collection. This is foreshadowing the B section that is arriving quickly, in which a similar hexatonic melody is used.

Fig. 3.13: Bassline of m. 47-50 extracted with hexatonic collections

Figure 3.13 is an extraction of the bassline in mm. 47-50, with a few altered beams and enharmonically-respelled pitches. It can be difficult to notice with all of the clusters, but the bass line moves continuously in parallel fifths and continues the hexatonic arpeggios that have dominated the A section so far. In fact it is an exact quotation of the first three bars of the movement; the lower voice is transposed down a major third and the upper voice is transposed up a minor third from mm. 1-3. Similar to the “laughing” chords earlier, the perfect fifths move melodically through different transpositions of the hexatonic scale, shown in the color-coding. The very last triad is not part of a pair because at this point in the music the tonality of B minor has arrived. With regard to preparing for this arrival, it is important to note that Rzewski is

alternating between the transposition of zero common tones—that is, alternating by a whole step. The lower voice moves between hexatonic 2,3 to 0,1 while the upper voice moves from hexatonic 1,2 to 3,4.<sup>41</sup>

Fig. 3.14: Bassline of m. 47-50 in block chords



Figure 3.14 is another extraction of the bassline shown in figure 3.13, though this time both triads that occur simultaneously every three eighth notes (for example the G minor triad and the D minor triad in the first measure) are grouped together into one chord. Some registers have been changed for ease of reading, and the bar lines are not exactly accurate, given that most of the chords begin on pickup beats. Two types of extended tertian harmonies emerge from this grouping, the minor nine chord and the major nine chord. Neither of these chords are in the hexatonic collection. However, the roots of the chords form a pattern of major third-major second—G-B-C#-F-G, and so on.. The major thirds are a byproduct of the hexatonic scale, as all major/minor triads in the scale are separated by a major third. Each major second occurs when the hexatonic collection is alternated, and as mentioned above, Rzewski is alternating in the transposition of zero common tones, which constitutes the pitch shift of a major second.<sup>42</sup>

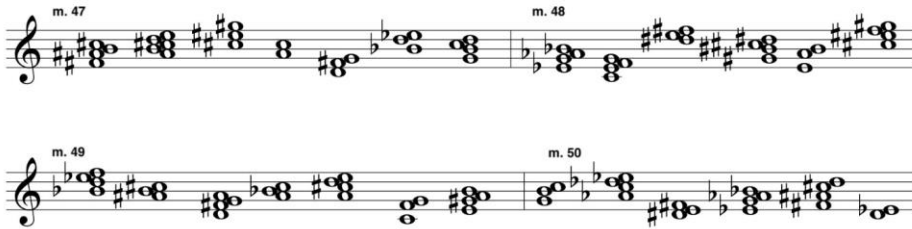
<sup>41</sup> On the sixth eighth note of measure 47, there is a typo in the lowest voice. The pitch should be a B<sup>b</sup>, but the accidental from the second eighth note remains, making the pitch read as a B<sup>b</sup>.

<sup>42</sup> Recall that the interval class vector of the hexatonic scale is <303630>, meaning that the only two transpositions of zero common tones are by major second and by tritone, but given the cyclical nature of the scale, transposing up by a tritone (literally a major second three times) would yield the same result as transposing up by a major second.



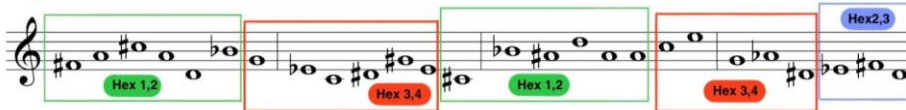
Fig. 3.15: Inner voices of m. 47-50, accidentals apply only to the notes they immediately precede

All non-melody and non-bassline pitches



m. 47 Chords	Prime Form	m. 48 Chords	Prime Form	m. 49 Chords	Prime Form	m. 50 Chords	Prime Form
1	(0237)	1	(0237)	1	(0237)	1	(015)
2	(02357)	2	(0237)	2	(013)	2	(0237)
3	(037)	3	(013)	3	(0237)	3	(013)
4	(03)	4	(0237)	4	(013)	4	(0237)
5	(015)	5	(027)	5	(0237)	5	(0148)
6	(015)	6	(0237)	6	(027)	6	(01)
7	(0237)			7	(0237)		

Root of each chord from above



The inner voices in these few measures (mm. 47-50) are rather daunting for both listener and pianist, but as with the bassline, extracting the pitches can be helpful. Figure 3.15 shows every pitch in each measure that is not the melody or the bass line moving in perfect fifths, and each accidental only applies to the note immediately following. The top two staves arrange these pitches in their most compact forms. The chart below then arranges the prime forms of these inner voice chords. Of the 36 chords, twelve form (0237)—a major chord with an added 4<sup>th</sup>—several are triads outright, and many others are triads with a missing chord member. This chart shows that the inner voices are far less complex than they seem in the actual score, as most are

rearranged into rather simple triads with extensions. Why Rzewski decided which chords would get which extensions may be more a pianistic choice than anything. Even here, the voices in the clusters can be traced to find melodies of thirds.

Assuming that these cluster chords are built on triads, a root can be assumed of each. The roots of these triads from hexatonic collections. Again, Rzewski is alternating between transpositions of zero common tones, hexatonic 1,3 and 3,4. The shortened hexatonic 2,3 collection at the end is cut off by the tonality that arrives in measure 51, a similar fashion to the tail-end of the bassline. It is curious that the collection ends with hexatonic 2,3, the transposition that includes the B minor triad, so the missing pitches are fulfilled by the following bars. The only chord of note is the penultimate chord in the last measure. It can be seen as two things—an F♯M+b6, or a Daug+maj7. No other chord in this sequence uses an added sixth or an augmented harmony, but fortunately both roots, F♯ and D, fit in hexatonic 2,3, so either option is acceptable.

The phrase following (mm. 52-55) is set entirely in B minor, the sonata's tonic key. The melody is yet again the main theme shown throughout all four pieces, and the accompaniment is rhythmic, energetic, and features a bit of counterpoint in the left hand. The phrase ends halfway deceptively, as the right hand plays G major, the VI, and the left hand plays the tonic (m. 55). This disagreement is short lived, as the music returns to hexatonicism, abandoning the tonality. A build up leads to a definitive cadence on the opening section (m. 57), using the scales hexatonic 1,2 and 0,1.<sup>43</sup> These two transpositions encircle hexatonic 2,3, the transposition that includes the triads B minor and G major, which were both so common in the tonal section previous (mm. 51-55). Rzewski is purposefully avoiding the tonality he set up, a fact that sets up

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<sup>43</sup> There is one odd pitch in measure 56, the B♯ on the third quarter note. It does not fit in either of the two scales mentioned in this pair of measures.

the return of hexatonicism in the following few measures (m. 56-58). The cadence is followed by a two-measure afterthought, returning to both the hexatonic arpeggios and the (0123) set, the former being an aspect that will again dominate the music of the B section, but in a very different manner.

## **2. B Section (mm. 60-108)**

The opening of the B section starts with the rather difficult trill on (0123) mentioned earlier, and this will be the last instance of the semitone cluster for some time. However its influence will not disappear. This trill lasts for a full phrase underneath a melody (which we will return to) before changing pitches. Both hands now trill on a major third (m. 74), the two hands separated by a half step. This yields the set (0145), a set that will supplant the usage of the semitone cluster (0123). The first notable element of the new set is that it is the first four pitch classes in the hexatonic set, an addition of pitch classes 8 and 9 would complete the set. Additionally, this new set can be seen as an expansion of the (0123) set, and Rzewski will prove that he is thinking of it in such a way later on. The term expansion referring to the Bartókian method of taking a pitch class set and making it grow proportionately—for example, (0246) could become (0369). Rzewski manages this somewhat differently, splitting the tetrachord in two. The first semitone in (0123) stays where it is, while the second semitone moves. Rzewski will use each of these sets in the following sections and movements, thus these chords will be referred to as the Bartókian expansion chords. Later on, these chords will be drawn to connect even to the (014589) hexatonic collection, thus connecting the two most important harmonies to the sonata, (0123) and the hexatonic scale.

Fig. 3.16: Bartókian expansion of the (0123) set

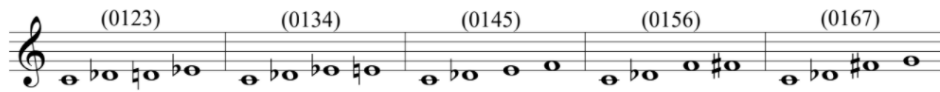


Fig. 3.17: Melodies for comparison

The melody in the top staff is the “curious” melody mentioned before. Before looking at its relation to the other two melodies, it is important to note that the entire theme fits in hexatonic 0,1. The new melody, which will return many times throughout the B section, starts with two descending minor thirds, and the main theme of the sonata starts with two ascending minor thirds. The melody on the middle staff is taken from the phrase full of clusters that was dissected previously (mm. 47-51). The last four measures of this theme are taken directly from the main theme, and its first measure is set in hexatonic 1,2. Looking at the last four pitches of this hexatonic measure (B $\flat$ -A-F-F $\sharp$ ) and the last four measures of the melody that starts the B section (D $\flat$ -C-G $\sharp$ -A) there are some intervallic equivalencies to be seen. These are both (0145) sets, which has started to make an appearance in this section of the piece.

At some point, one might wonder how so many parts of this piece can be linked so clearly to the hexatonic scale, and how many of these are actually compositional choices and not just coincidences or by-products of the hexatonic collection. For example, was Rzewski truly choosing each triad in the hexatonic arpeggios of the A section, or were there not many triads from which he could choose? Is the appearance of the (0145) set intentional, or has it been there all along and it is only showing up more frequently by chance? I encourage the reader to experiment with the hexatonic collection and find just how many possibilities it holds. The overall content of (014589) seems rather simple at first glance, but quite a number of a harmonies and melodies can be created with just one set, not to mention all four transpositions.

The next phrase (mm. 74-80) continues the hexatonic melody described above, with several means of development and variation throughout. What changes most drastically is the accompaniment. At first, the left hand plays in counterpoint with the right hand melody while both hands trill the (0145) chord. The right hand melody at this point is entirely set in hexatonic 2,3, and the left hand melody is in hexatonic 3,4. Interestingly, the pitches that the left hand trills fit into hexatonic 2,3, and the pitches that the right hand trills are primarily part of hexatonic 3,4. So far in this movement, it has been rare that Rzewski simultaneously uses two transpositions of the hexatonic collection that do share common tones, but only at one point in this phrase do the two hands meet on an octave. More frequently, the two melodic lines fall on perfect fifths, a sonority that foreshadows the next big change in texture.

Fig. 3.18: mm. 80-108 hexatonic grouping

The image displays a musical score for measures 80 through 108, annotated with hexatonic groupings. The score is written in a grand staff (treble and bass clefs) with a key signature of one sharp (F#) and a 3/4 time signature. The annotations include:

- Hex 1.2:** Indicated by green arrows and boxes, spanning measures 80-81 and 85-86.
- Hex 2.3:** Indicated by blue arrows and boxes, spanning measures 81-82, 86-87, 89-90, 94-95, and 104-105.
- Hex 3.4:** Indicated by red arrows and boxes, spanning measures 82-83, 87-88, 90-91, 95-96, and 100-101.
- Hex 0.1:** Indicated by pink arrows and boxes, spanning measures 83-84, 88-89, 91-92, 96-97, and 101-102.

Performance instructions include *pp* (pianissimo) at measure 80, *p* (piano) at measure 85, *mp* (mezzo-piano) at measure 90, *release una corda pedal* at measure 90, *tre corde* at measure 95, and *mf* (mezzo-forte) at measure 100. A dynamic marking of *f* (forte) appears at measure 104. The score concludes with a final chord in measure 108.

This is the section of music similar to the 27<sup>th</sup> variation of *The People United* or to the Herbie Hancock “Survival of the Fittest” mentioned earlier (see p. 53). It consists of four phrases, the fourth of which will close out the B section. The bassline moving in the perfect fifth-minor second pattern is a drastic change, and will be easily recognizable each time it is returned to for the rest of the movement. This music moves in masses of hexatonic collections, frequently spanning both hands. Each transposition of the hexatonic collection is used, though hexatonic 0,1 is used less than the other three. In this entire passage all but three pitches fit in a hexatonic set. The three that do not are accompanied by a box and a red “X” in figure 3.18 above, and each will be accounted for in its own way. Additionally, there are only a few places where the bassline breaks its pattern, most of which are near a cadence or at a point of change.

There is more to this passage than just the hexatonic organization. The melody starting with the onset of the bassline is a modified version of the hexatonic melody at the opening of the B section, now set in hexatonic 1,2. This melody is accompanied by other pitches selected from the same transposition, and this will remain true throughout this passage—each hand will stick to just one hexatonic collection at a time before moving on.

Despite all of the hexatonicism in the movement to this point, there has not been any overlap in the scales. Rzewski will most often use the hexatonic set in its entirety before cleanly moving on to another transposition. However, given the meandering bassline in this passage, it was just a matter of time before some overlap occurred, and in measure 86 the B $\flat$  fits in both hexatonic 1,2 and hexatonic 2,3, the next transposition that Rzewski uses. Similarly, in the next measure the bassline pattern seems to end, jumping a minor sixth from B to G. But looking at the right hand, the melody has ended on an F $\sharp$ , which again fits in both hexatonic 1,2 and 2,3, keeping the bassline pattern intact. The last four pitches of this melody (A-B $\flat$ -F-F $\sharp$ ) form

another (0145) set, something that will be true of the end of each phrase but the last in this passage.

The following phrase (mm. 88-93) is set almost entirely in hexatonic 3,4, with a brief transposition to hexatonic 0,1 in the left hand. It is curious that this phrase contains the most inconsistencies of the bassline pattern, because these two transpositions share three common tones. It would have been rather easy to not only keep the integrity of the pattern, but also to maintain a rather similar range and feel of the bassline. This phrase brings the left hand two octaves above the right hand before both hands pause to play a rolled chord. This chord is yet again the (0145) set.

The third phrase (m. 93-101) is an extended one, and also the only phrase among the four to use all of the hexatonic transpositions—the previous two used two each (together making all four) and the final phrase excludes hexatonic 0,1. This phrase also contains all three of the pitches that do not fit in a hexatonic collection. All of this paired with a slight increase in dynamic and the release of the left pedal pushes the music onward before the final phrase takes off. The first point of note in this phrase is the larger use of inner voices starting in measure 94. This is where the first “errant” pitch occurs, an E $\flat$ . Rzewski takes the time to notate the inner voices in both hands with different stems, emphasizing their importance. The inner voices together form the set (01568), which does not fit in the hexatonic collection, but will return strongly in the third movement. Without the E, the set is (0158), which is included in the hexatonic set. This further drives the “wrong pitch” away from the rest of the music. In an attempt to integrate it, we can instead look at the lowest voice in both hands, instead of the two inner voices. This may be what Rzewski intends, because it is the left hand upper voice that continues the perfect fifth-half step pattern, not the lowest voice. Using these two lines, we see



the pitches E, D, F $\sharp$ , and E $\flat$ , forming the set (0124). This does not fit in the hexatonic collection, but it is reminiscent of the (0123) semitone set used earlier in the movement. In truth, the E $\sharp$  is a choice that Rzewski might have made simply because he liked the sound.

Not long after, measure 97 has the next pitch that does not fit in its surrounding hexatonic collection, an F $\sharp$ . This pitch is not as difficult to understand, its intent is clear. The discussion providing its answer is a much longer one that musicians have kept on their mind for about 100 years. In post-tonal music, can there be non-harmonic tones? The obvious answer is yes, non-harmonic tones were invented for expressive purpose, and expression exists just as strongly in post-tonal music as it does in tonal music. However, at what point do these pitches stop being non-harmonic tones, and simply become part of the set? Accepting that all post-tonal music can have non-harmonic tones would be a nightmare for the analyzer, especially in far more complex music than this section of the Rzewski sonata. That being said, just looking at the musical gesture, most would agree that this F $\sharp$  (acting as E $\sharp$ ) is an *appoggiatura* leading to the F $\sharp$ , and the music the right hand plays in this phrase is not too dissimilar from something one might find in Gustav Mahler or even Wagner.

It should also be noted that in the following measure (m. 98), the F $\sharp$  and A $\sharp$  resolve to D and B, while the left hand plays B and F $\sharp$ . There is no denying that this is a B minor chord, and it will be heard as such because of the dominant motion prior. It could be a coincidence of hexatonicism, but four measures later Rzewski does the same thing. The closing (0145) melody ends A $\flat$ -A $\sharp$ -F-E in the highest voice, and this is copied double-time in the bass (mm. 100-102). Alongside this being the end of a phrase, the destination of a crescendo, and the gesture leading to E, Rzewski adds the pitch G in the right hand, which alongside the E and B in the bass creates

an E minor chord (m. 102), voiced in the same way the B minor chord was. However, this G does not fit in the hexatonic 0,1 that carried both hands into this cadence. It does fit in the hexatonic 3,4 collection that follows, but it would be odd for this pitch to join the collection without continuing in any way—watching the voice leading, this is the end of the lower voice in the right hand. Therefore, it is safe to assume that Rzewski included this pitch in an attempt to solidify this cadence in E minor, an attempt that certainly succeeds.

The fourth and final phrase (mm. 102-108) takes off in triplets, as opposed to the steady and relaxed eighth notes previous. The right hand takes over the perfect fifth-minor second pattern and mainly sticks to it, with a couple of deviances. Meanwhile, the left hand plays triads in hexatonic 3,4 (m. 104). Aside from this and a very brief 3-note interruption of hexatonic 1,2, the fourth phrase is predominantly in hexatonic 2,3. This transposition includes B major, the dominant of E minor, and Rzewski does circle back to this triad throughout the phrase. Toward the end of the phrase, the hands switch roles again, and the left hand comes crashing to the bottom of the keyboard (m. 108), ending the B section on a fully voiced E minor chord, the subdominant of the sonata's overall key. This E minor chord does fit in hexatonic 3,4, but to call it as such would be futile—Rzewski intends for this to be a cadence in E minor.

### **3. C Section (mm. 109-152)**

The center section of the scherzo is the most tumultuous of the five sections. It sees the most complex harmonic and pianistic material, but it is structured in such a way that the listener can comprehend everything that occurs. Throughout the entire section, with one exception, Rzewski will group the music in five-bar phrases—four bars of 2/2 and one bar of 5/4. The five-beat bar will always disrupt the pattern and process used in the previous 2/2 bars, but will simultaneously prepare the next phrase. Alongside this rhythmic structure, the C section has

three main groups of its own, marked by a specific texture. Section C-a uses an ostinato of opposing perfect fifths, section C-b moves in waves of sound organized in hexatonic sets, and section C-c uses triplet figures with pointed melody pitches placed throughout the bar, climbing all the way to the top of the keyboard.

Fig. 3.19: Measures 108-117

The image displays a musical score for measures 108-117. It is organized into three systems, each with a treble and bass clef staff. Measure 108 begins with a piano (*p*) dynamic and a 3/2 time signature. The left hand features a triplet of perfect fifths (Eb, Ab) and the right hand features a triplet of perfect fourths (F#, Bb). The texture is marked 'una corda' and includes a 'Ped.' (pedal) marking. Measure 109 continues the triplet patterns. Measure 110 shows a change in texture with a 5/4 time signature and a 'Ped.' marking. Measure 111 features a 3/2 time signature and a mezzo-piano (*mp*) dynamic. Measure 112 continues the 3/2 time signature and *mp* dynamic. Measure 113 shows a change in texture with a 5/4 time signature and a 'Ped.' marking. Measure 114 continues the 5/4 time signature and *mp* dynamic. Measure 115 features a 3/2 time signature and a 'Ped.' marking. Measure 116 continues the 3/2 time signature and *mp* dynamic. Measure 117 concludes the section with a 3/2 time signature and a 'Ped.' marking.

The left hand in section C-a begins by ascending in perfect fifths starting on Eb, and the right hand descends in perfect fifths starting on F#, which consequently brings it back to E $\natural$  (m. 109 beat 1). This results in two stacks of perfect fifths separated by a semitone, forming the set (012378). This is a return of the semitone cluster set, with an added semitone up a major third. In the second beat of the same bar, the hands switch collections. In measure 109, the first pitch in

each triplet forms the (0123) set. Aside from a brief rearrangement of the pitches on the fourth triplet of the second measure, the pattern in measure 109 is repeated four times. Measure 113 is the first of instance of a 5/4 measure.

This five-beat bar continues the perfect fifth pattern of the previous four bars, the first two triplets being transposed up a fifth, being based on B $\flat$  and B $\natural$  (starting from the lowest pitch in each triplet) (m. 113). The triplet on beat three is based on E $\flat$ , a major third above the B $\natural$  from the previous triplet, and the triplet on beat four that starts with F $\sharp$ , a minor third above the E $\flat$ . As we know, these minor third intervals are integral to the construction of the movement. But, the fifth and final triplet has a relationship of a major second, an interval that has been avoided. This disruption of the pattern is indicative of the 5/4 measures throughout the C section, so to throw out this method of analyzing this measure would be a mistake. But just to show that there are multiple concepts at play, taking the first pitch of every triplet makes the set (02479), the pentatonic collection, which has not been used in this piece but is a rather specific scale to use.

The next four-bar group of 2/2 measures (mm. 114-117) works very similarly to the first group, albeit different pitches. In this group, the base of each perfect fifth stack creates the (0123) set.<sup>44</sup> Additionally, Rzewski is not using the (012378) set for the entire measure in this phrase. The first half of the measure creates the set (024579), which is a diatonic scale without a leading tone, or the pentatonic scale with an added perfect fourth above the “tonic” of the scale.

The next 5/4 bar (m. 118) is a quick summary of the entire C-a section, as well as foreshadowing what is about to occur. Reaching from the top of the keyboard, each triplet descends to the lower-middle range of the instrument. The first two triplets form the (012378)

<sup>44</sup> There is a typo in measure 114. The last pitch in the first triplet should be a C $\sharp$ , not an A $\sharp$ , as every other pitch in the same position throughout this phrase is a C $\sharp$ . Emanuele Arciuli, who has the same score I do, plays a C $\sharp$  in his recording.

set, signifying the first phrase. The next two triplets are the (024579) set, representing the second phrase. The fifth triplet has E and B played together by the right hand, with the left hand playing D and then A. These two perfect fifth dyads fall inward by a semitone, resulting in both hands playing Eb-Bb an octave apart. This starts the first big textural change in the C section, and brings in the next subsection.

Section C-b (mm. 119-142) is what has been referred to as “waves tumbling over each other.” Throughout nearly all of this passage, each hand will play perfect fifths in one of two ways; broken up so that the lower pitch of the fifth sounds first, or blocked together so they sound at the same time. This will consistently be set up in triplets, the first two pitches in one hand separated, and the last pitch of the triplet being the blocked dyad. For the first half of this passage, the hands will play the same pitch classes an octave apart. In figure 3.20, rhythm has been taken out and only one staff is shown because the two hands have the exact same pitch content.

Fig. 3.20: Hexatonic “waves” mm. 119-128

The figure shows two staves of musical notation in bass clef. The upper staff is labeled 'm. 119' and the lower staff 'm. 124'. The music consists of a sequence of notes in a hexatonic scale. Colored brackets group these notes into hexatonic sets: Hex 2,3 (blue), Hex 3,4 (red), Hex 0,1 (purple), and Hex 1,2 (green). Brackets facing downward are for the upper voice, and brackets facing upward are for the lower voice. The notes are arranged in a way that creates a 'wave' pattern of perfect fifths.

The brackets facing downward apply to the pitches in the upper voice, and the brackets facing upward apply to the lower. When separated by perfect fifths, the upper voice will always be using a transposition that is one semitone away from the transposition of the upper voice, a

transposition of three common tones. Each system is one phrase—four bars of 2/2, one bar of 5/4. Before noticing anything else, just the shape of the phrases show that they are parallels, the second phrase being transposed up a minor third. The only difference between the two phrases is that while the first phrase triplet pattern is “L.H.-L.H.-R.H.,” the second phrase (mm. 119-123) gives the separated perfect fifth to the right hand, a rather drastic change in atmosphere. The numbers below show the intervallic content of the melody from the first pitch of m. 119 to the downbeat of m. 121, given in pitch-class intervals.

3-4-4-5-4-1-2-1

This set of intervals is more diverse than the tone-row of earlier, or even the general melodic motion throughout the piece. However, everything is contained within the hexatonic scale, save the major second. Compare this melody with the melody in measure 81. The melody in the C-b section is the most stripped down version of the hexatonic melody heard throughout the B section, a melody that also had ties to the A section and the main theme of the sonata. Now, looking at measure 121-122 in figure 3.20, the exact same interval content is seen, just inverted. The last bar of the phrase continues the pattern of 5/4 measures by breaking the pattern of the phrase it is attached to. The same is true of the second phrase in this passage.

At the end of every two bars, and the end of every 5/4 bar, the melody moves by a major second, an interval not included in the hexatonic set, and the resulting dyad does not fit in with any of the surrounding hexatonic collections. The fact that a major second does not fit in the hexatonic interval class vector does not mean Rzewski will not use the interval, it just means that there is a specific significance when he does. Each time a major second occurs, it consequently moves up or down by a minor second, changing the direction of the melody to allow for the inversion. Additionally, every melodic major second begins a new transposition of the hexatonic

scale. Finally, looking at each of the dyads approached by a major second; the pitches are D/A-F/C-G#/D#. These dyads move in minor thirds across both voices, yet another thing tying this section together. Rzewski has effectively composed out two diminished triads with every non-hexatonic perfect fifth—D diminished and A diminished. This structure is clear, evident to the listener, and is very effective in driving the music forward to the third phrase in this section. Additionally, this is one of several moments where Rzewski will use hidden diminished chords at cadences or otherwise structurally important moments.

Fig. 3.21: Third phrase of section C-b (mm. 129-133)

The figure shows a musical score for two staves, m. 129 and m. 132. The score is annotated with colored brackets and labels indicating hexatonic groupings. In m. 129, the upper staff has a pink bracket labeled 'Hex 0,1' and a blue bracket labeled 'Hex 2,3'. The lower staff has a green bracket labeled 'Hex 1,2' and a red bracket labeled 'Hex 3,4'. In m. 132, the upper staff has a blue bracket labeled 'Hex 1,2' and a pink bracket labeled 'Hex 0,1'. The lower staff has a blue bracket labeled 'Hex 1,2' and a red bracket labeled 'Hex 3,4'. Arrows indicate the direction of the hexatonic groupings: rightward for Hex 0,1, Hex 2,3, Hex 1,2, and Hex 3,4 in m. 129; and leftward for Hex 1,2 and Hex 3,4 in m. 132.

As before, the hexatonic grouping in figure 3.21 apply to the pitches in the direction of the brackets, but now the two hands have different pitch content. Rhythm and repeated notes have again been taken out, but the general shape of the measures remains. The two hands start a major seventh away from each other, and for the first three measures the hands move with the

same interval content, just inverted.<sup>45</sup> These two things lock the hands into consistent motion with each other, and because they started at an interval included in the hexatonic set and only moved in other included intervals, only two hexatonic collections will be used at a time despite there being four voices. Unlike most phrases in the C section, the fourth 2/2 bar (m. 132) of this phrase disrupts the pattern as opposed to the 5/4 bar. Looking at the interval content from across the barline in m. 132 and through the measure, there exists several perfect fourths and fifths, when this phrase has consisted of only major/minor thirds and semitones. However, thinking of this measure not as two independent lines, but as a conversation between the two hands alleviates this anomaly. Starting from the pickup to measure 132, the R.H. E/B moves up a perfect fifth to the R.H. B/F $\sharp$ , but tracing the line through the both hands gives this result; R.H. E/B down a minor second to L.H. D $\sharp$ /A $\sharp$  which then moves down a major third to the R.H. B/F $\sharp$ .<sup>46</sup> Similar threads can be seen throughout this measure. The bar of 5/4 (m. 133) at the end of this phrase returns to just two voices, but now every beat in the triplet is played in a sort of dramatic last ditch effort to get the mood of this subsection across. It ends before a short pause on two perfect fifth dyads separated by a minor ninth, forming the (0156) set, another Bartókian expansion of the (0123) as mentioned above (see fig. 3.16).

The next two phrases (mm. 134-142) serve as a transition into the C-c section. The first phrase consists of only semitones, minor thirds, and one tritone. The hands, still playing perfect fifths, start on the same (0156) set the last phrase ended on, and they move in a perfect inversion of each other. The music forms a sort of wedge centered around the (0156) set. Looking ahead to measure 138, the content mirrors what was seen in the beginning of the phrase, save that it is

<sup>45</sup> The left hand will occasionally change registers to keep up with the ascending right hand line.

<sup>46</sup> This major third is more accurately an ascending minor sixth, but recall that we are speaking in pitch classes.



now centered on the pitches A-B $\flat$ -E-F. This set is transposed up a tritone from the original tetrachord rooted on E $\flat$ , and we can see that in measure 136 the melodic tritone switches the center of the wedge to the tetrachord rooted on A.

The left hand briefly starts an ostinato on the newly transposed (0156) tetrachord, and Rzewski leaves the noteheads for the repeated E and F absent (m. 139). Rzewski uses this same notation in *The People United* during variation 9 and 11. To use a different notation for only three measures here in *Four Pieces* may seem a little unnecessary, but reading it as a pianist implies that Rzewski intends this to be a repetitive, almost monotonous ostinato. The pitches should seem as if they are hardly even there, and in the sheet music they are literally missing. The right hand melody uses hexatonic 3,4 for the first six pitches (both voices included) and then hexatonic 1,2 for the last two pitches in measures 141 and 142. These last two also form the (0145) set, as the end of phrases in the C section often do. This bar of 3/2 is the only one of its kind in the entire C section, and it has replaced the 5/4 bar that follows every five-bar phrase. This phrase with its return to the hexatonic flowing melody is a moment of relaxation before the music to come, one of the most difficult passages for the performer.

Fig. 3.22: C-c section mm. 143-152

m. 141

m. 144

m. 147

m. 150

*release soft pedal*

The C-c section (mm. 143-152) contains only two phrases, but there is an enormous amount of content packed in. Rzewski marks specific pitches in the triplets that are intended to be brought out with a staccato and a legato. In the beginning, this is every first pitch in the triplet, but that does not remain consistent. What is reliable is that the strong beats in the right hand will

always coincide with the strong beats in the left hand. Emanuele Arciuli plays this passage exceptionally well, always bringing out the melody and giving the listener something very clear to hang on to. That being said, it is the “melody” notes that carry this passage. The inner voices in both hands for the first six measures form chromatic lines, not filling in all twelve pitches, but not skipping any either; for example the lower right hand voice in measure 143 forms the set (01234567) and the upper left hand voice forms (0123456). As the music progresses, the rhythmic placement of the melodic notes becomes less consistent, which muddies the inner voices, and these chromatic lines will often have holes.

The rhythm of the melody notes grow more and more frenetic throughout this passage. It starts on every strong beat, but by measure 146 the third melody note falls on the third note of the triplet on beat three. From then on, the melody notes will be rhythmically paired together (see measure 147, Gb-F and Ab-G). For the next three bars, there is an alternation of strong beat placement and “weak” triplet-third-note placement. The last two measures (mm. 151-152) put the music in double time, having one melody note on every strong beat and one melody note on every third beat of the triplet. These last two measures also see the entrance of a third voice in the right hand that only occurs in time with the melody pitches. This third voice thickens the texture, in some cases it fills in the chromatic holes of the inner voice, but above all it prepares the music for the right hand texture immediately following this subsection—a return of the B section with large three-note chords in the right hand accompanied by the hexatonic bassline of earlier. Before moving on, there is more to be seen in the melody of this passage.

Fig. 3.23: Melody notes in section C-c mm. 143-downbeat of 153

The figure displays three systems of musical notation for section C-c, measures 143 through the downbeat of measure 153. Each system consists of a grand staff (treble and bass clefs) with pitch class sets (PC sets) written above and below the notes. Red vertical lines and brackets connect corresponding notes between the two hands, while blue brackets group notes within a single hand. Measure 143 shows PC sets (0145) and (0123) in both hands. Measure 148 includes a *8va* marking above the treble staff. Measure 152 includes a *8va* marking below the bass staff. The notation is a simplified version of the original score, focusing on pitch classes and their relationships.

Figure 3.23 extracts the melody pitches from section C-c. In the first system, the pitch class sets correspond to pitches in the hand and measure they are above/below. The barlines are still accurate to the real score, though rhythm has been taken out. The colors in this graphic are not tied to the colors of the hexatonic sets, instead they are meant to be brackets dividing the pitches in two different ways. The pitch class sets outside of the staff correspond with the blue brackets, and the sets between the two hands correspond with the red brackets. For example, in

measure 148, the right hand blue bracket is tied to the pitches A-B $\flat$ -F $\sharp$ -F, and the set (0145). The first right hand red bracket is marked (01) and corresponds to the A-B $\flat$ , and the very next red bracket corresponds to the F $\sharp$ -F $\natural$ -C-B and the set (0167). Aside from a few subsets, every set is an expansion of the (0123) semitone cluster set (see figure 3.16). At times, the two hands move in an inversion of each other, sometimes even including the inner voices, but it never lasts for more than a measure or two. Measure 147 is a bar of 5/4, and thus disrupts the flow of the music afterward, making it hard to determine exactly where the sets lie. The blue brackets show the grouping starting right in measure 148 and continuing on until a dyad (01) is cut short at the cadence in m. 153. The red brackets show the grouping working backwards, and starting measure 148 with the dyad instead. In the red brackets, both hands end on a (0145) set together before the cadence, which holds hexatonic significance to both the C and B section, which is about to return. In fact, both the blue and red version have only one moment each of congruency between the hands, and similar to the red version, the blue congruency falls right on the last tetrachord before the cadence, this time forming (0123), which obviously holds significance to the entire sonata as a whole. These coincidences occur just before the return of the B section, and also before the most climactic moment of the movement.

#### **4. B' Section (mm. 153-201)**

The return of the B section marks the “turn around the corner” of this movement, as the listener will for the first time hear content they are familiar with. The music here is organized hexatonically as much of the first B section was, and it features the same characteristic bassline. This time, however, occasionally the semitones will be left out of the perfect fifth-semitone pattern for dramatic effect—more distance can be covered quicker if the semitones are left out.

Listening to Emanuele Arciuli is evidence that this hexatonic writing is not just something for theorists to analyze and see, but it is heard as well. In my conversations with him, I did not get the impression that Arciuli noticed the hexatonic organization of the music, but regardless of whether or not he did, the way he plays these few phrases truly brings out the changes in hexatonicism. For example, in measure 158, the left hand plays hexatonic 3,4 very briefly, just for three notes (C-B-E), but Arciuli brings them out. Not long after, both hands switch from hexatonic 2,3 to hexatonic 1,2 (m. 159), and Arciuli changes the color of his playing drastically despite there being nothing written in the score aside from notes and slurs at that point. If Arciuli noticed this hexatonic organization, he exemplifies it fantastically in his playing. If he did not notice it, Rzewski has written the music in such a way that a performer will naturally hear the difference between the transpositions and react accordingly.

The second half of the B section's return is full of references to the first movement of the sonata. First, it features the same hexatonic melody that has been featured throughout the B and C section, set in hexatonic 3,4, but drawn out extensively and harmonized in rather unique ways. The listener hears a return to the (013478) collection that was used so frequently throughout the first movement with the unorthodox tremolo notation—Rzewski even brings back the same tremolo notation (see figure 2.2). Figure 3.24 below shows the harmonies below in pitch class sets and in combinations of triads, which is how these chords are voiced. Most of the chords are two triads being played at once, similar to the collection borrowed from the first movement, but half of these are also hexatonic subsets—the chords in m. 170, 174, 177, and 179 all fit in hexatonic 3,4, the same transposition as the melody through this section. A Cmaj7 chord can be seen as a C major triad and an E minor triad, but Rzewski specifically voices the rest of the chords so one hand is playing one triad—this is not the case with the Cmaj7 chord.

Fig. 3.24: Triad combinations in measure 167-174

Measure	Chord in Pitch Class Set	Triad Combination
m. 167	(013478)	E $\flat$ minor over E minor
m. 170	(01458)	A $\flat$ major over C major
m. 173	(01358)	E minor over A minor
m. 174	(0347)	A $\flat$ major over A $\flat$ minor
m. 176	(01358)	A $\flat$ major over F $\flat$ major
m. 177	(01458)	C major over A $\flat$ major
m. 179	(0158)	Cmaj7

Fig. 3.25: Hexatonic organization in measures 181-201

The figure shows a piano score with three systems of music. The first system (m. 181) has three colored boxes: a red box labeled 'Hex 3,4', a purple box labeled 'Hex 0,1', and a green box labeled 'Hex 1,2'. The second system (m. 188) has a blue box labeled 'Hex 2,3' with the instruction 'catch resonance with pedal (sempre con una corda sola)'. The third system (m. 195) has three blue boxes labeled 'Hex 2,3'. Performance markings include 'pp', 'sffz', 'trem.', and 'poco rit.'.

These closing phrases of the second B section start with hexatonic collections, but the pitches are organized in such a way that they are hardly recognizable. After hearing the climax of the piece and then the elongated tune, these harmonies sound completely foreign, as if the music

is groveling after a defeat, or mumbling before exclaiming in measure 188. As figure 3.25 shows, the pitches in the first system (mm. 181-187) fit very nicely into hexatonic sets—they are distributed evenly across both hands, changes only occur at the barlines, each collection is fully realized, and transpositional motion is only in minor seconds, accounting for several common tones each time, as opposed to the jarring zero common tone transposition. More than anything, this phrase is proof that Rzewski has been purposefully choosing the familiar harmonies of triads and extended chords throughout this movement—evidently, he is able to do both, but only chooses to use the foreign harmonies here and nowhere else.

Measure 188 and the phrase following are set entirely in hexatonic 2,3, and the lowest voice moving between G and E $\flat$  are reminiscent of the opening of the B section. Rzewski's instruction to "catch resonance with pedal" is a technique used several times in *The People United*, namely variation V. There, he gives further instruction:

Play chords staccato, then catch harmonics with pedal. [The attack consists] of a swift, sudden grabbing motion in which not all of the written notes are necessarily played and some other notes may be accidentally struck; a little like picking berries, or fruit.<sup>47</sup>

The specific attack that Rzewski requires may not be identical to what he wants in this section of *Four Pieces*, mainly because here the chord is followed by a tremolo. However, the effect of catching the harmonics does remain. It is a very descriptive sound—icy, sharp; as if the wind had been knocked of you. This same effect was used right at the end of the first movement, before Rzewski instructed the performer to "cut off abruptly." After Rzewski has disoriented the listener with references to the first movement, and presented unfamiliar harmonies, this shocking effect will illicit gasps from the audience.

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<sup>47</sup> Rzewski, *The People United Will Never Be Defeated!* p. 11



The very last phrase of the B' section serves as a transition to the final section of the work. It uses the same technique of a lingering tremolo used in the first movement, but here Rzewski has arranged it in a fully hexatonic pitch class set. It resolves to a staccato (013478), the same collection that usually has the tremolo effect in the first movement. These three lines of music are not difficult to grasp for the analyzer or the performer, but due to their dissimilarity to the rest of the music, they are quite the experience for the listener, something that prepares the return of the A' section, the final section in the work, very well.

#### **5. A' Section (mm. 202-248)**

Immediately, the music is back to the hexatonic arpeggios that have only been heard in the A section. The techniques across the two A sections are the same, and there is not much completely new material. However, Rzewski does go about many things in different or more liberated ways. For example, the first four bars of the A' section (mm. 202-205) are an exact inversion of the opening material from the first A section. The following sections are not intervallically identical, but they do reflect what was heard in the opening. The first three phrases are the same in both movements; a phrase of “bouncy” hexatonic arpeggios, a phrase of hexatonic arpeggios without rests, and a phrase of long-short (0123) collections—these were the same three phrases that were compared to the Beethoven “Hunt” scherzo (see fig. 3.2). In each of these, the direction of the line has been inverted, though not always perfectly. The fourth phrase in the A' section again uses hexatonic arpeggios (m. 215), with the hands moving in opposite directions away or toward each other. After briefly coming together, the hands jump away from each other, each playing a major second dyad. These dyads are similar to the (0123) semitone clusters that have been used so frequently, but they do not form the same set. In a dramatic

gesture, the hands mirror each other intervallically as they climb toward the center of the keyboard (m. 224).

Now, the listener is taken back to what was heard in measure 33, with the “laughing” chords and serial melody underneath. This time however, everything is flipped; the serial melody is in the highest voice using retrograde-1, and the “mocking” hexatonic chords are beneath. These chords are still five note chords, but where it was a full stack of thirds making a ninth chord before, it is now a minor chord with a major 7<sup>th</sup> and an added #11 in the lower right hand voice. The lowest left hand voice moves in hexatonic 1,2, the three upper left hand voices in 0,1, and the lower right hand voice in 3,4. This extra voice is constantly a tritone above the lowest left hand voice. This could be seen as a callback to the perfect fifth-semitone pattern of earlier, as the tritone is the result of those two intervals moving in opposite directions. The following measures use fragments of the hexatonic arpeggios that are now so recognizable. These measures move in storms of different transpositions and inclusions of block chords, some of which fit in hexatonic collections and some that do not, such as a Gm7.

The right hand in the following phrase (mm. 227-233) uses the familiar hexatonic melody that originated in the B section (m. 60). The right hand is split into three voices, the top voice being a minor ninth above the lowest, and the middle voice up a fifth. This results in hexatonic 0,1, 1,2, and 3,4 happening at the same time, the same three voices that were used during the “laughing” chords a phrase earlier. As this phrase comes to a close, the bassline briefly uses three different left hand motifs from movement; perfect fifth-semitone pattern in hexatonic 0,1 (m. 233), fragments of hexatonic arpeggios (m. 234), and then fully realized/triadic hexatonic arpeggios like the opening of the A section (mm. 235-236).

Fig. 3.26: End of A' section mm. 234-248

The musical score consists of five systems of staves, each with a treble and bass clef. The first system (m. 234) starts with a forte (*f*) dynamic and includes annotations for Hex 1.2 (green), Hex 3.4 (red), Hex 2.3 (blue), and Hex 0.1 (pink). A *p subito* dynamic change is marked. The second system (m. 237) features a *f subito* dynamic and a *ff* dynamic, with a 'Lots of pedal' instruction. The third system (m. 240) includes a *dim.* dynamic and chord symbols: *Bm: i<sup>9</sup> VI<sup>6</sup> III 6 5 7 4 3 V VI<sup>6</sup> iv<sup>6</sup> i<sup>6</sup>*. The fourth system (m. 243) shows a *pp* dynamic and includes annotations for Hex 3.4 (red), Hex 0.1 (pink), and Hex 1.2 (green). The fifth system (m. 246) features a *ff* dynamic and includes annotations for Hex 2.3 (blue) and Hex 0.1 (pink).

The sporadic and feverish writing at the top of this page signals the ending of the movement. Hexatonic 2,3 is used most frequently through both hands in the top system, while the right hand has interruptions of hexatonic 1,2 and 3,4, and the left hand is interrupted by hexatonic 0,1. Both hands briefly play hexatonic 0,1 (m. 237) but are stopped by four non-hexatonic pitches. These four pitches are A $\sharp$ -C $\sharp$  in the left hand and B-D in the right hand. The significance of these pitches is threefold; first, they are both minor thirds. Second, they form the tetrachord (0134), a Bartókian expansion set. And third, perhaps most significant, A $\sharp$ -C $\sharp$  signifies a leading tone chord (or a dominant chord without F $\sharp$ ) into the tonic B minor, which is signified by the right hand pitches. This melding of four different ideas—hexatonicism, intervallic writing, pitch class set, and tonal function—is what makes the study of Frederic Rzewski's music so invigorating. Constantly there are several threads running through his music, each not only tying the sounds he creates together, but also binding with each other and forming one strong thread.

The brief tonal section (mm. 238-244) is a callback to the tonal section heard at the end of the first A section, this time extended. It thins out as time passes, starting with Bm9 chords over F $\sharp$  and ending on octaves walking down to the low B's at the very bottom of the keyboard. Interesting is Rzewski's use of the minor dominant chord in measure 241, a reference to his use of the same harmony in the main theme of the piece. He resolves this deceptively to the VI, and not long after the greater satisfaction of a major dominant chord is given, though it is still resolved deceptively. Once the cadence has been reached on the octave B's, Rzewski allows not a moments rest before jumping back in to the hexatonicism, even picking a hexatonic 3,4, a transposition that includes B. Climbing back up the keyboard with small remnants of melodies, the final, definitive cadence of the work is heard in measure 246. These two chords fit in

hexatonic 2,3, with the two exceptions shown by the red “X.” Both of these pitches do move by a minor third from the D# in the right hand, so they are not entirely unaccounted for.

Rzewski ends the movement open-ended with an afterthought. The hexatonic arpeggios in m. 247 are the same collections used in the first measure of the movement, and the first two triads are the same as well. Rzewski has rearranged the voices in the hexatonic 0,1 set so they form augmented triads. This could be a registral choice—if Rzewski had used the same triads from the opening and not used any intervals other than a third, the melody would have ended up lower than the chords in the last measure (m. 248). These two chords are the familiar (0123) collections moving inward toward each other, though the distance between them is now a tritone. This results in the four outer voices spelling out a fully diminished chord, or more accurate to this movement, a stack of minor thirds.

With this, Rzewski ends the movement and prepares for the third. The second piece is the shortest movement of the four, but it has the most energy. It is a testament to Rzewski’s compositional power (not to mention virtuosic writing) and shows his capabilities to maintain several different theoretical and compositional aspects throughout a work, a truly post-modern characteristic of his writing.

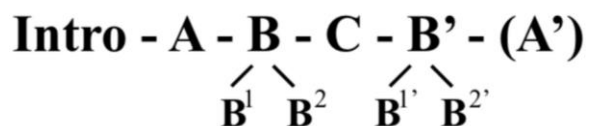
## Chapter IV

### Third Piece

#### A. Form

The slow movement of this sonata is cast in an arch form, similar to the second and fourth movements. The form is clear-cut in this movement, and specific textures and harmonies make each section easily recognizable for the listener. See figure 4.1 below for a breakdown of the form. The arch is more involved in this movement than in the other two, with a few additional subsections (or lack thereof). It opens with an introduction, a trait it shares with the first movement. The distinction between B<sup>1</sup> and B<sup>2</sup> is primarily a tonal one; these are both tonal sections set in different keys, and they are separated by a clear transition, so it is worthwhile to acknowledge each individually, though for the sake of the integrity of the arch form it may be useful to think of them as one unit with subsections. As mentioned earlier, the final A section is in parenthesis because it does not actually happen. Rzewski sets it up as if it would occur, but the music is interrupted at the last moment and the material from the A section never returns. The implications of this will be examined in more depth.

Fig. 4.1: Form of the third piece, chart showing measure numbers



Formal Section and Transitions	Measure Numbers
Introduction	mm. 1-12
A section	mm. 12-35
Transition	mm. 33-35
B <sup>1</sup> Section	mm. 36-55
Transition	mm. 54-55
B <sup>2</sup> Section	mm. 55-66
C Section	mm. 67-101
B <sup>1'</sup> Section	mm. 102-107
Transition	m. 107
B <sup>2'</sup> Section	mm. 108-128
Transition	mm. 125-128
Final Phrase	mm. 129-136

Marked “loosely, with feeling,” Rzewski opens the movement with an introduction that will provide motivic material for the entire movement. Both hands play octaves of varied register and voicing to form one disjunct melodic line. This melody will return several times throughout the movement, but small motifs can be found in nearly every measure of the piece, particularly the D $\flat$ -E-D $\flat$ -C motif, forming the set (014), the first three pitch classes of the hexatonic scale. Every measure in the introduction has a different time signature, with no immediately visible pattern or repetition. This is something Rzewski does nowhere else in the sonata—varied time signatures are common, but it is rare to see seemingly random time changes. There is significance to these changes, but it is driven by harmony rather than rhythm, so this will be returned to later.

Fig. 4.2: March-like accompaniment articulation pattern, m. 12-13

**Poco più mosso** (♩ = 120–132)  
*Left hand evenly*

The musical score shows two staves for the left hand. The top staff is in treble clef and the bottom staff is in bass clef. The time signature is 7/8. The key signature has one flat (B-flat). The tempo is marked 'Poco più mosso' with a metronome marking of 120-132. The instruction 'Left hand evenly' is written above the staves. The dynamics are marked as *p* (piano) at the beginning, *pp* (pianissimo) in measure 12, and *mf* (mezzo-forte) in measure 13. The articulation pattern consists of a repeating sequence of notes: a quarter note, an eighth note, a quarter note, an eighth note, a quarter note, an eighth note, and a quarter note. This pattern is repeated throughout the measures.

In measure 12, the A section arrives with a change in tempo marked *poco più mosso*, the octaves stop, and a marching accompaniment starts in 7/8. The articulation pattern of short-long-short-short-long (see figure 4.2) will repeat many times, and this will be referred to as the march-like accompaniment, paired with the unique voicing he uses—two perfect fifths stacked on top of each other with a semitone’s space, so that a minor 10<sup>th</sup> forms between the outer voices (m. 14 left hand). Joseph Straus uses the term “registral order,” in which he describes the spacing of successive pitches in a given collection.<sup>48</sup> This registral order is then [7][1][7], and it will return frequently, most often with the march-like accompaniment.

The melody in the A section alternates between long phrases without much motion and brief periods of rapid flourishes in a higher register. There are a few moments of pause through the section, usually to play a far-reaching or slow-moving phrase such as measures 20-21 and 27-28. Harmonies change and the articulation is occasionally varied, but the march-like accompaniment stays persistent until measure 33 where the first transition occurs. A sustained

<sup>48</sup> Joseph N. Strauss, *Introduction to Post-Tonal Theory*, p. 17.



chord supports a scale played in sextuplets spanning a few octaves, up and down. This scale (see figure 4.3), which will be analyzed in greater depth later on, is a four-note chromatic scale starting on D followed by another four-note chromatic scale on Ab, transposed a tritone upward. In his *Thesaurus of Scales and Melodic Patterns*, Nicolas Slominsky identifies this scale as “tritone progression; interpolation of 3 notes; #14.”<sup>49</sup> “Tritone progression” refers to the equal division of the octave into two parts by the diminished 5<sup>th</sup>, “interpolation of 3 notes” means there are three notes added after the principal tones that make up the tritone, and the number 14 is Slominsky’s classification. Thus, this scale will be referred to as the Slominsky-14 scale. This measure is repeated three times, and then a descending Slominsky-14 scale is repeated on its own three times, marked *martellato*. With this follows a key signature of five flats, and many measures marked with internal repeats.

Fig. 4.3: Transition into B<sup>1</sup> section, Slominsky-14 scale, m. 33-36

The musical score is presented in two systems. The first system is in 8/4 time, marked "Poco più mosso (♩ = ca. 76)" and "3x". It features a chromatic scale in sextuplets, with dynamics 1x - *pp*, 2x - *mp*, and 3x - *f*. The performance instruction is "marcato, quasi staccato" with "(sust. Ped.)". The second system is in 3/4 time, marked "martellato ff" and "3x", with a tempo of "♩ = 80 In strict time; as if far away". The key signature changes to five flats (Bb major/Cb minor), and the piece concludes with "una corda".

<sup>49</sup> Nicolas Slominsky, *Thesaurus of Scales and Melodic Patterns*, p. 5.

The B<sup>1</sup> section starts in measure 36, marked “In strict time; as if far away.” This section is in E<sub>b</sub> dorian, and Rzewski arpeggiates extended harmonies built on E<sub>b</sub>. For a time, the left hand plays open fifths (E<sub>b</sub>-B<sub>b</sub>-F) while the right hand runs through notes diatonic to the key. In each bar, Rzewski marks specific notes with a tenuto, creating an embedded melody. We will find that this melody is a reference to the sonata’s main theme from the first movement’s introduction; here it is stated as E<sub>b</sub>-E<sub>b</sub>-G<sub>b</sub>, the indicative ascending minor third. Rzewski marks this section with an incessant repetition of measures. In a given two-bar group, Rzewski will mark the first measure with a repeat sign, and then once the second measure is played, the entire two-bar group is played again, repeats and all. This gives the effect of a three-bar phrase where the first two bars are identical. A similar idea can be seen in the melody in this section; both the melody and the phrase structure follow a formula of X-X-Y.

Until measure 41, these measures are all written as grace notes, similar to what one might see in a score of Chopin with a superfluous run in the right hand, or in Liszt when a passage of unmeasured music occurs.<sup>50</sup> Eventually, the harmonies become more varied, though the E<sub>b</sub> pedal remains constant. Seeing the repeated measures over and over first brings to mind the repetitions of the minimalists, particularly Phillip Glass, who will play a “four chord loop” and then repeat the loop countless times. Emanuele Arciuli pointed out that the repetitions of Phillip Glass do not lead somewhere musically in the traditional sense; yes, the “process music,” as Steve Reich occasionally calls it,<sup>51</sup> starts in one place and ends in another, but moving there gradually over countless repetitions and slight variations does not have the same effect. Arciuli instead likened

<sup>50</sup> See pieces like the Chopin Ballade no. 1 in G minor, measure 33, or the Liszt *Liebstraume* no. 3, measure 25.

<sup>51</sup> Auner, Joseph. *Music in the Twentieth and Twenty-First Centuries*. p. 283.

Rzewski's repetitions here to that of Liszt, who will repeat phrases a few times to get a direct movement into a new idea.<sup>52</sup>

When I mentioned this connection to Liszt with Dr. David Brooks, he disagreed and brought up an interesting idea. Frederic Rzewski once said in an interview that when people ask him what he does for a living, he will first say he is a musician, then if they press he will say he is a pianist, and lastly he will call himself a composer.<sup>53</sup> Rzewski has been called a pianist/composer many times, and it appears he sees himself as such. In "Winnsboro Cotton Mill Blues" from *North American Ballads*, Rzewski makes an overt reference to another pianist/composer, Sergei Rachmaninoff.

Fig. 4.4: Rachmaninoff quotation in "Winnsboro Cotton Mill Blues"<sup>54</sup>

The musical score consists of three systems of piano notation. The first system shows a bass clef with a triplet of eighth notes marked (3x) and a dynamic marking of *f*. The second system shows a treble clef with a dynamic marking of *L.H. gradually cresc. to f* and five repeated phrases marked 3x. The third system shows a bass clef with dynamic markings of *(f)*, *L.H. cresc. to*, and *fff*, and five repeated phrases marked 3x.

<sup>52</sup> See Liszt's *Transcendental Etudes*, particularly no. 12 "Harmonies du Soir."

<sup>53</sup> Duffie, Bruce. "Composer/Pianist Frederic Rzewski: A Conversation with Bruce Duffie." 1995.

<sup>54</sup> Frederic Rzewski *North American Ballads*.

This reference has been noted many times as quoting the famed opening of Rachmaninoff's second piano concerto. This is a bit of a cheeky reference, especially in the context of a piece as wild as "Winnsboro Cotton Mill Blues," but it says something about how Rzewski likes to quote or reference other composers. For another example, Rzewski's piece "Rubinstein in Berlin" from 2008 is perhaps even more heavy handed. The piece opens with the pianist playing the A and B sections of Chopin's Nocturne in C# minor exactly as they appear in their original form. Then, the pianist begins speaking text taken from Rubinstein's published journal, *My Younger Years*, while playing original music by Rzewski. Here we see Rzewski making reference to two different pianist/composers, but in neither case is he attempting to emulate these musicians, he is simply quoting passages unchanged from them, and adding his own aspect to it. In a way, this act of taking something from another musician is Rzewski-like in and of itself. This is of course not all that constitutes his style, but it is common enough that it can be seen as a pattern. Rzewski is also not the only composer to do such a thing; in his *Music for a Summer Evening (Makrokosmos III)*, George Crumb has one of the pianists and one of the percussionists play passages from Bach's *Well Tempered Klavier*; Caroline Shaw wrote a piece entitled *Gustave le Gray* in which the pianist plays parts of Chopin's Mazurka in A minor, op. 17 no. 4. However, none of this pianist/composer-borrowing is the case for *Four Pieces*, and trying to find some sort of connection to another composer is perhaps not the best route to take. Calling the repetitions in the B<sup>1</sup> section of the third movement similar to Liszt is one thing, but claiming that Rzewski did this on purpose to bring Liszt into the piece is both unlikely and not worthwhile.

The Eb pedal continues on to measure 54 where the second transition is heard. The key signature is stripped away, and one "liquid" and "lonely" melodic line repeats the melody heard

in the introduction, transposed up a perfect fourth. This music is unmeasured, and it sounds reminiscent of a typical Rzewski cadenza. Most who have heard Rzewski's music are aware of his frequent improvised cadenzas, sometimes lasting for minutes at a time, such as the five minute cadenza in *The People United*. There is no such improvisation in *Four Pieces*, but this transition gives a similar effect, especially given its clear reference to the introduction.

Immediately after, the B<sup>2</sup> section begins in measure 55. Similar to the B<sup>1</sup> section, this section uses dorian harmonies, though now centered on A, a tritone away from the previous Eb dorian. The left hand uses a far reaching alberti bass, divided into nonuplets until measure 64. Rzewski uses a time signature notation that is also used in the 4<sup>th</sup> movement. He marks it as 2, 3, or 4 over a dotted quarter note. The other option for such a notation would be 6/8, 9/8, or 12/8, but the former makes the music much more clear when given Rzewski's instructions; "Slowly and hesitatingly at first, then becoming more confident, but always expressive, with subtle variations of speed."<sup>55</sup> With the fluid and changing tempo, the subdivision of the nonuplets would be nearly impossible to line up if the player had to count out each 8<sup>th</sup> note against the nonuple notes. Listen to a recording of this movement and it will be evident that the performer cannot count through each, but instead will feel the music pushing and pulling through the left hand figure. Later on, in the B<sup>1'</sup> section (measure 102), Rzewski uses decuplets in a very similar manner, and this time he writes "The groups of 10 may be stretched by lengthening the first notes and accelerating the rest, but without destroying the sense of the quintuplet:<sup>56</sup> literally 'tempo rubato.'<sup>57</sup>

<sup>55</sup> Rzewski, *Four Pieces*, page 25

<sup>56</sup> Rzewski writes quintuplet here, though the music clearly denotes groups of 10. Perhaps he intends to split the decuplet into two halves, but nothing in the score denotes such an interpretation.

<sup>57</sup> Rzewski, *Four Pieces*, page 29

The right hand in the B<sup>2</sup> section is playing the main theme plainly and clearly, it is no mystery that this is meant to be the theme from the opening of the first movement. This is the longest explicitly tonal stretch of music in the entire sonata, and one of the most obvious as well. The only harmonies used here are the tonic, the mediant, the submediant, the subdominant (major, because of the dorian mode) and the dominant, and there are no extensions used beyond a seventh. The music swells and speeds up until ending abruptly on the dominant, a half cadence that will bring in the C section, the height of the entire sonata.

In measure 67, the right hand plays the theme from the introduction transposed down a minor third while the left hand repeats a cyclic ostinato. The music slows and broadens (m. 74), and the stark octaves from the beginning return briefly. Then in measure 75, the opening theme repeats, this time at pitch, and the line eventually crashes down to the lowest B<sup>b</sup>'s on the piano, marked triple forte. Several dense and marcato chords bring in a quasi-fugue. There is no entrance of a subject, no typical countersubject response, but there are four voices all throughout and each voice will echo the (014) motif that first occurred in the introduction to the movement. The few pages of music that this section covers are daunting to tackle as analyst or performer, though the end result is remarkably rewarding. For the listener, it is easy to simply allow this section to pass by, and to not give it much thought, beyond marveling at the technical skill of the pianist. Thinking about the music vertically and taking the harmonies as they are in one particular moment will not do the section justice. Just as listening to the intense counterpoint in Bach's "Ricercar a 6" from *The Musical Offering* or to the finale of Mozart's *Jupiter* Symphony can have the same effect—overwhelming use of many voices in complicated counterpoint might lose the listener, but if one can hang on to the train until it reaches the station, the ride will have been worth it. In measure 95, a brief usage of the tremolo figure from the first movement divides

the fugal section into two parts: the first part characterized as heavy and broad, and the second part characterized as linear and wispy. The C section finishes with a triple forte tremolo on a hexatonic chord, followed by the X-X-Y repetitions of the B<sup>1</sup> section.

Measure 102 is given another key signature of five flats, and this time the key center will be B $\flat$  minor, no longer a dorian mode. The ascending minor third X-X-Y melody will return as well, now B $\flat$ -B $\flat$ -D $\flat$ . There are two sets of repeated three-measure phrases (the phrase is literally two bars, but the first bar is repeated) before abruptly changing pace to a single measure repeated three times. This bar (m. 106) has some familiar harmonies that will be discussed later on in this analysis. A brief hexatonic ascent brings the right hand to the top of the keyboard, where it will play the main theme, now in B $\flat$  minor. This is the B<sup>2'</sup> section (m. 108), and while the theme is completely diatonic, its harmonization is not. Lines of hexatonicism relax the music, aided by a ritardando.

Measure 125 is the last transition, and the Slominsky-14 scale from the first transition returns. If the second half of an arch form is to be thought of as a retrograde of the first half, then the listener might expect this scale to be a mirror image of the opening, meaning it would be played three times, and then the A' section would follow. Instead Rzewski subverts our expectations with an accented fortissimo chord at the bottom of the keyboard, repeating it 36 times through a decrescendo. After a brief pause, another chord marked triple piano closes out the movement. As mentioned earlier, this is what gives the movement a bit of ambiguity in its ending. On one hand, it is the only movement that has something that looks as if it might be an ending. However, the absence of the second A section leaves the music open-ended, and the empty form seems too specific a choice to argue that the piece is intended to be final.

## B. Harmonic Analysis

### 1. Introduction (mm. 1-11)

Fig. 4.5: Reduced introduction; hexatonic grouping

The figure displays a musical score for the introduction (mm. 1-11) with various hexatonic groupings and motives. The score is written in treble clef and consists of five staves. The time signature changes from 8/8 to 3/4, then to 7/8, 4/4, 7/16, and finally 3/4. The key signature has one flat. The score is annotated with several hexatonic groupings (Hex 0,1, Hex 1,2, Hex 2,3, Hex 3,4, Hex 5,4) and an 'Introduction Motive' spanning the first two staves. The groupings are color-coded: Hex 0,1 (pink), Hex 1,2 (green), Hex 2,3 (blue), Hex 3,4 (orange), and Hex 5,4 (red). Arrows indicate the direction of the groupings and motives.

Figure 4.5 shows the introduction to the third movement stripped of its many octave doublings. The melody is not simply reduced to one isolated voice as it would appear in the score, because each voice in the score has its own contour and large leaps. Similarly, it is not stripped to just its unordered pitch intervals; this is the contour of the melody that lies underneath the many voices as they appear in the score. This means that some pitches in the reduction above do not literally appear in the score, but they are heard in the minds ear. In layman's terms, this is



what one would hum if they were to hum along with the piece. Additionally, when Rzewski quotes the introduction later in the movement in one voice, it agrees with the reduction above.

Throughout the second movement, Rzewski would purposefully use the entire hexatonic set before moving to another transposition. If a set were ever left unfinished, it was interrupted for a reason. Here, Rzewski is using incomplete groupings of hexatonic transpositions, so the question of whether or not Rzewski intends to use hexatonicism arises. Because of the second movement's tendency to use fully realized hexatonic transpositions, the 3-note rule first mentioned in the first movement was not needed, but it will be used again here (see p. 31). The minimum number of pitch classes required to identify a hexatonic transposition is three, so long as two of those pitch classes are separated by a major third. The first and fourth movements will occasionally require an exception to this rule, where hexatonicism can be determined by just two pitch classes, but this is not necessary in the third piece.

Now looking back at the groupings in the above figure, many significant ideas can be found. The first hexatonic transposition used is 1,2, and Rzewski will return to this transposition many times throughout the movement; it is the first to be used in several sections, used at cadences, and even the final chord of the movement. Measure 4 sees the first of several grace notes throughout the introduction, but here it is the only pitch that does not fit hexatonically with any of its surrounding pitches.<sup>58</sup> The other grace notes do fit, but none of them are needed to fulfill the 3-note minimum for determining the transposition. This may mean that the grace notes are not intended to be included in the hexatonic group, and the analysis would not suffer in any way given this take. However, the final grace note in measure 10 is a minor third below the note

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<sup>58</sup> Referring to the score, the octave B $\flat$  grace notes in measure 12 are not included in this discussion. They are given the same notation, but they do not act the same way—it is a pianistic gesture similar to rolling a chord to play the bass notes before the rest of the chord. This is evidenced by the right hand melody also coming to a B $\flat$ .

it precedes, whereas the other grace notes are just a half-step below, including the non-hexatonic grace note. This minor third grace note does fit hexatonically, and its pitch choice seems too specific not to have meant it hexatonically, especially given its spelling.

Two grace notes occur in measure 10, an *F#-G* and a *Gb-A* (grace notes given in italics and their destinations in print). The spelling change in the enharmonic notes is puzzling, because had the spelling remained consistent the minor third from *F#* to *A* is much easier to read than the augmented second on the contrary. Instead, we must look at where the second grace note is coming from on beat 5 of measure 10—a *Bb*, which is a clean major third above the grace note *Gb* as opposed to an awful diminished fourth above *F#*. Rzewski chose to base the spelling of the grace note on the note that precedes it. Now returning to figure 4.5, we find that the first six beats of measure 10, which spans from the first grace note to the second, all fit in hexatonic 2,3, and beats 7-9 change to hexatonic 0,1. Even more, if Rzewski had decided to continue the pattern of grace notes moving up by a semitone, a *G#* before the *A* on beat 7 would have fit in hexatonic 0,1. It was a conscious choice to not only change the pattern of grace notes, but also to change the spelling of the grace notes, and therefore this analysis will include the grace notes in the hexatonic grouping.

In measures 4 and 5, the first overlap occurs, and this will further prove the point of a 3-note minimum for a hexatonic transposition. The pitches in question are, in order, *A-D-Bb-Eb*, which forms (0156), a set not included in the hexatonic set. The central interval is a major third, surrounded by two perfect fifths.<sup>59</sup> Using the 3-note rule, the major third can be paired with one

<sup>59</sup> In actuality, a perfect fourth is the more condensed form of this interval, and several times I have used this condensing for other intervals, such as referring to a major seventh as a semitone. However, I have purposefully

of these two fifths to form a hexatonic grouping. Therefore, the first three pitches are in hexatonic 1,2, and the last three pitches are in hexatonic 2,3. A far more complicated overlap is seen in measure 9, at the end of the first and only usage of the hexatonic 3,4 transposition. This is the climax of the melody and sees the most rhythmic activity, as well as three different transpositions. The hexatonic 2,3 transposition is actually entirely unnecessary—without it, every pitch is still accounted for. However, it still goes on for four pitches, a sizeable amount when the minimum is three, so it is given a label here.

Given the fragmented hexatonic sets, certain trichords and tetrachords appear frequently, namely (014), as has been mentioned already. Someone analyzing this movement without any context of the other movements in the sonata might be inclined to say that this movement is based primarily on the (014) set, and the hexatonic collection is a superset or a secondary founding force. Because of the other movements, hexatonicism will remain the head of this movement, but (014) cannot be undermined, especially during the discussion of the C section. Two important motifs are created of this trichord. Measure 2 to the downbeat of measure 4 is a crucial motive, and it will be referred to as the introduction motive, which is shown in figure 4.5 with a black bracket. It will often be split down the middle into two motifs, the first ending at the B $\sharp$ , and the other starting from the same point—this is shown by the dotted line in measure 3. Other important sets are the (015) set, a warmer sound than the previous, and the extended (0145) set. This is of course just the combination of the two trichords, but it occurs naturally many times in the introduction, such as the final cadence in measures 11 and 12, which brings in the A section.

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chosen to use perfect fifth instead of perfect fourth in several instances because of the associations of fifths and the way Rzewski (and others) builds his music on them in many places.

Returning to the varied time signatures and their meaning, it is understood that the only reason Rzewski decided to change time signatures was to establish a new downbeat. The slurs do not always correspond with downbeats, so there is no gestural reason for the downbeats to be where they are. When extracting the pitch classes from only the downbeats of figure 4.5 (excluding grace notes) the set [0,1,4,6,7,10,11] is formed with prime form (0123679), obviously not a hexatonic set. However, splitting this set into two parts yields the normal forms [0,1,4] and [6,7,10,11] with prime forms (014) and (0145), respectively. So even if the pitch classes stressed by the downbeats themselves are not from a single hexatonic transposition, together they form remnants of one. Even still, looking at the pitch classes from the downbeats another way will show another hexatonic connection. Some measures have repeated downbeat pitch classes, such as measure 4 and 5 both starting with a B $\flat$ . Excluding these immediate repeats, three composed-out trichords can be found on the downbeats. The chart below shows these groupings, with the immediate repetitions shown in italics.

Fig. 4.6: Composed-out hexatonic groupings in the introduction

Measure Numbers	Pitch Names on Downbeats	Normal and Prime Forms	Hexatonic Transposition
1-3	D $\flat$ E C	[0,1,4] (014)	Hexatonic 0,1
4-7	B $\flat$ <i>B<math>\flat</math></i> F $\sharp$ C $\sharp$	[6,10,1] (037)	Hexatonic 1,2
8-12	G <i>G</i> G B B $\flat$	[7,10,11] (014)	Hexatonic 2,3

All three of these composed out trichords meet the criteria for the three-note minimum rule. Interestingly, Rzewski still omits the hexatonic 3,4 transposition, which was found only once in the introduction.

## 2. A Section and First Transition (mm. 12-35)

Gone are the constantly changing time signatures and the wandering melody, as the first A section begins in measure 12. With few exceptions, the march-like accompaniment here uses the articulation short-long-short-short-long, with rests after each “long.” These few bars use an Eb pedal, and it uses the set (01568), which was used in the B section of the second movement as the “errant pitch” chord (see p. 76). In this movement, this set is not nearly as much of a stranger to the overall scope of the piece; it will return many times in the piece. Just looking at the prime form of the set is enough to see its similarities to the hexatonic collection—(01568) and (014589) share four common tones—(0158). And indeed, in measure 14 when the right hand must move to a higher register, the march-like accompaniment thins to the set (0158), an overtly hexatonic subset. The left hand plays, from bass upward, Eb-Bb-Cb-Gb; this is the [7][1][7] registral order mentioned earlier (see p. 101). This particular voicing will return several times to indicate the march-like accompaniment, and it further solidifies the pedal Eb.

The melody in the right hand (pickup to m. 14) begins the hexatonic 1,2 transposition with only three pitches, forming (014), before reaching farther upward for a flourish in the same hexatonic transposition. Once reaching the topmost pitch of the flourish, it descends by using a series of appoggiaturas, highlighting each semitone of the hexatonic scale on the way down. The uppermost voice in the right hand repeats a similar phrase in measure 17, now employing hexatonic 0,1, and the march-like accompaniment (transposed up a tritone with an A<sup>♯</sup> in the bass) is likewise contained in hexatonic 0,1. This brief transposition foreshadows the two tonal centers of the B section—Eb dorian in the B<sup>1</sup> section and A minor in the B<sup>2</sup> section. However, the A pedal does not last long, and another important set is introduced.

Rzewski appears to be cognizant of the fact that the hexatonic collection does not include any major seconds or tritones, and as was the case throughout the second piece, the use of such an interval usually signifies a transition or connection between sequences or transpositions, as the composer has done across all of the movements. Rzewski interrupts the march-like accompaniment in measure 17 with four repeated chords. This chord forms the set (026), a major second and a tritone. An alto voice also enters, and at first glance it seems to be continuing the (014) motif from the melody (which it does), however, when grouping both hands together, the whole tone set (02468) arises.<sup>60</sup> What better way to provide a break from the hexatonic collection than by using a set that is comprised entirely of an interval absent from hexatonicism. The next two measures are also devoid of hexatonicism, but in such specific means that Rzewski seems to be intentionally avoiding the hexatonic set. Fully and half diminished seventh chords replace the (01568) harmony of the march-like accompaniment, and the right hand plays a similar flourish to measure 14, though not set hexatonically this time. When the flourish ends, both the right hand melody and the march-like accompaniment return to hexatonic 2,3 for just a moment before the texture changes completely in measure 20.

The rhythmic aspect of the section stops for a moment and both hands play a chord set completely in hexatonic 1,2 while also using the signature [7][1][7] march-like accompaniment voicing (m. 20). Following this, the pianist spends measures 20-21 in a sort of daydream.

Between the left hand in measure 20 and the daydreaming right hand, all 12 pitch classes are used with no repeats, suggesting the introduction of a tone row, but the march-like

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<sup>60</sup> In his 1980 recording, Rzewski deviates from the score in m. 17. On the “and” of beat 6, the left hand plays F4, which is slurred to the melody Bb on the downbeat of m. 18. Rzewski plays this pickup note as a D6, which when in treble clef looks identical to a bass clef F4. It is possible that the left hand treble clef picking up m. 18 was simply placed too early, though there is no pianistic reason for the left hand to play the D6, so it is also possible that the note was placed on the wrong staff, though such a typo seems doubtful. Of course, Rzewski might have just decided to play the D6 because he wanted to in that moment.

accompaniment returns in hexatonic 0,1; the daydream ends and so does the tone row, not to return. The pitches here are generally organized in perfect fifths and semitones, perhaps referencing the [7][1][7] voicing, though the sudden change in texture followed by the sudden return to the march-like accompaniment leaves the listener feeling as if the pianist simply decided to play something else for a few bars.

The same melodic pattern of a drawn out (014) melody followed by a right hand hexatonic flourish from measures 14 and 18 returns in measure 22 and lasts for several measures, with one interjection of a (0237) chord on the downbeat of m. 23, a set that has not been seen yet but will return in measure 27. The march-like accompaniment moves around to many different transpositions and central pitch classes, but it frequently finds itself back at Eb, the same place it started. Measure 27 shows a chord full of references and function. Firstly, the prime form is (013478), which is the chord used so often in the first movement; there it was spelled as two minor chords a semitone apart, and here it is an extended Bbm harmony, specifically a  $B_b^{b13no11b9Maj7}$ , which includes the (0237) set (Bb-F-C-Db, the first four pitches of the left hand m. 27) that was foreshadowed by the previous interjection in m. 23.<sup>61</sup> Secondly, removing one pitch from this collection can yield two different important sets; removing the A# (which is only played in the drawn-out right hand melody) reveals the set (01568), the march-like accompaniment set, and removing the C# (which is only played in the (0237) reference mentioned) will provide (01458), a nearly full hexatonic 1,2 transposition. While it is not

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<sup>61</sup> There is a wrong pitch in the score in measure 27. The last pitch of the fourth triplet should be a Bb instead of a B#. This measure is very clearly a Bbm chord, every other B is flat. If Rzewski intended a B#, there would have been a courtesy accidental.

functioning as a dominant chord, B $\flat$  certainly helps set up the return of the supposed E $\flat$  “tonic,” which will return just before the section ends.

Following this, the time signature changes to 7/4 (m. 28), slowing the pace and anticipating the 4/4 in the next measure. Carried through hexatonic 1,2, the left hand returns to the march-like accompaniment and [7-1-7] voicing<sup>62</sup> in hexatonic 1,2, the bass note D preparing a return to hexatonic 2,3 and E $\flat$ , the hexa-“tonic” of this section. Starting in measure 25, one could follow the bass notes to m. 31 and see a nearly tonal bass progression—E $\flat$  as tonic, F as the supertonic, B $\flat$  as the dominant, D as the leading tone, and back to tonic in m. 31.

The right hand (m. 29) plays two overlapped (014) motifs, and then briefly uses the (026) set to connect the melody to the introduction motif in measure 30. Finally E $\flat$  returns (m. 31), alongside hexatonic 2,3, as the right hand plays the second half of the introduction motive. However, the [7][1][7] voicing modifies in the following measure, and the outer voices both move inward by half step, forming E $\natural$ -B $\flat$ -C $\flat$ -F $\natural$ , now with the voicing [6][1][6], forming the set (0167). This set was used many times in the second movement as a “Bartókian expansion” of the (0123) set that has been used so frequently throughout the sonata (see fig. 3.16). After a trill in the right hand, Rzewski instructs that this (0167) chord in the left hand be held with the middle pedal to provide resonance throughout the upcoming transition (m. 33-35).

The Slominsky-14 scale (see p. 101) played in measure 33 can be seen several ways, depending on the perspective one takes. Naturally, taking the pitch class set of the entire scale is a start. This yields the prime form (01236789), which is a transpositional combination of (0123)

<sup>62</sup> On the downbeat of measure 29, the central half step (B $\flat$ ) is missing from the left-hand voicing, and instead makes a [7-8] voicing. Notice that the A $\flat$  on the previous beat serves as a semi-leading tone into the A $\natural$  on the downbeat of m. 29. Had the B $\flat$  been present, this leading tone relationship would have been muddled.



at the tritone, the significance of which speaks for itself given the use of (0123) throughout the sonata. The scale itself is a group of six sextuplets, three ascending and three descending; therefore, the set of each beamed group is then another reasonable approach. Each sextuplet shares the prime form (012367), which does not give a great deal of information except for some insight into patterns that might be found in the scale. Disregarding beaming, we see that the Slominsky-14 scale is not much more than several semitone clusters spanning a minor third played one after the other. Each pitch between D-F is played, and then a similar chromatic scale is played between Ab-B. Because these are separated by tritones, the next four-note chromatic scale is again started on D, and then again on Ab, and so forth. If the “filled in” chromatic pitches between the minor thirds are left out, the intervals are nothing but minor thirds, essentially forming a fully diminished seventh chord—D-F-Ab-B (truly C $\flat$ ). This continues the pattern of hidden fully diminished seventh chords at transitional or cadential moments throughout the entire sonata.

The idea that Rzewski intended to hide this fully diminished seventh chord may seem far-fetched given the music was not beamed as such. The time signature and tempo changed just for this measure, and the composer could have arranged the beaming in such a way that the same sound would have occurred with a more obvious beaming organized in minor thirds as opposed to the sextuplets it is in. At the top of the scale in measure 33, the pattern of a filled out minor third stops shy of just one pitch, the topmost note being an E instead of an F. Looking now at beat 7, the final pitch is a D right on the strong beat, exactly where the scale started on beat one. Had the top F been included, this final pitch would have been an E $\flat$ , or the D would have fallen after the strong beat. Recall that a great deal of the A section has been centered around E $\flat$ . The

first note of the Slominsky-14 scale is D, the leading tone to E $\flat$ , and the highest note is E $\sharp$  (or F $\flat$ ), the Neapolitan  $\flat 2$ . This centers the scale around the “tonic.”

This is reasonable enough, but measure 34 can offer another explanation for the missing top pitch and the potential hidden diminished seventh chord. Measure 34, which also gets repeated three times, is an echo of the end of measure 33. Here, the time signature is just 2/4, time for only two sextuplets, and Rzewski works it out so that the D does fall after the strong beat. This seems to be considerably weaker, contrasting with the *martellato* (hammered out) marking. Had Rzewski kept this final D on the strong beat, the first pitch of measure 34, a B, would have had to be left out. Recall that this B is one of the notes in the fully diminished chord, and when descending it is the pitch that starts the B-A $\flat$  semitone cluster. If the B had been left out, there would be an incomplete semitone cluster, and by proxy an incomplete hidden fully diminished chord. But by sacrificing the strong placement of the final pitch, both the semitone cluster and the fully diminished seventh chord are present. Whether or not Rzewski intended to hide the fully diminished seventh chord in this scale is hard to know for certain, but it is obvious that he wished for the entire semitone cluster (0123) to be heard.

### 3. B<sup>1</sup> Section and Quasi-Cadenza (mm. 36-54)

For the first time in the entire sonata, Rzewski uses a key signature in the B<sup>1</sup> section (m. 36-54), giving it five flats. Key signatures will return several times in both the third and fourth pieces, and likewise both pieces have the longest tonal sections of music. The first and second pieces are not lacking in tonal music, but rarely do they last very long or are they explicitly tonal. Back to the B<sup>1</sup> section in the third piece, calling this music “tonal” is a bit of a stretch, but upon close inspection it is an apt term. While the harmonies used do not immediately evoke the

western classical canon, they are nonetheless functional and certainly were chosen with specific intention in mind.

This is the section of music set with internal repeats, following an X-X-Y formula. Rzewski has marked specific pitches at the top of the right hand with tenutos, and after a few bars of buildup, measure 39 shows their destination—Eb-Eb-Gb. This melody follows the X-X-Y formula as well, but also mimics the ascending minor thirds of the sonata's main theme. This will repeat several times throughout this section—for example, the uppermost voice of measure 41 and 43—and when the B<sup>1</sup> section returns later in the piece (m. 102). Below is a reduction and analysis of the harmony and voices from measure 41 until the cadenza at measure 54 (see figure 4.7). The repeats are excluded, as are the tremolo-like repetitions. In measures 50 and 51 of the score, the inner voices are nothing more than a trill, so the upper note of the trill has been excluded as well. The top voice should receive the most attention, as it is always marked tenuto and always falls on the strong beat. The bass voice does the same, but because it pedals an Eb the entire time, it is simply given an open notehead at the beginning of each measure; however, this is not to say it has been left out of the harmonic analysis, it is included when necessary. The slurs are my own, not included in the score, and they usually serve to show remnants of the main theme in the top voice of the right hand.

Fig. 4.7: Reduction of moving voices in measure 41-54.

The image shows a musical score for measures 41-54 in Eb Dorian. It consists of three systems of piano reduction and chord analysis. The first system (measures 41-45) shows a piano reduction with chords:  $i^7$ ,  $IV$ ,  $i^7$ ,  $V^7$ ,  $i^{9(no7)}$ ,  $iii$ ,  $i^7$ ,  $iii^{sus}$ ,  $i^7$ ,  $IV^{add4}$ . The second system (measures 46-49) shows a piano reduction with chords:  $i^7$ ,  $V$ ,  $i^4 - 3$ ,  $iii^{add6}$ ,  $IV$ ,  $iii$ ,  $IV^{add4}$ ,  $i^{9(no7)}$ . An ossia is provided:  $ii^{#7}/VII \nabla/VII$ . The third system (measures 50-54) shows a piano reduction with chords:  $iii$ ,  $IV$ ,  $i^{7(no3)}$ ,  $iii^{sus}$ ,  $i^{7(no3)}$ ,  $iii^{sus}$ ,  $V$ .

At a first glance, the score seems as if it could benefit greatly from roman numeral analysis. At a second look, it appears that the triads and harmonies used in this section are not functional, and therefore do not need such an analysis. But upon a third examination, and with great effort, the underlying functionality of this section reveals itself. In fact, Rzewski only uses four different harmonies in this section—tonic, a major subdominant, the dominant, and the entirely unfamiliar minor mediant chord. This last chord is what makes the tonal analysis of this section so difficult, but it is not impossible. This is a  $G_b$  minor chord, which should have a  $Bbb$ , but Rzewski has opted for an  $A^b$  for reasons of pianistic simplicity. Obviously, the mediant

chord in a minor key is usually major, an important distinction as this is usually connected to the relative major of the minor key. Without this connection, the music is ambiguous, and the harmonic motion is often lost, though Rzewski masterfully pulls the listener back on track. The analysis in figure 4.7 attempts to blend extended jazz harmony notation with traditional roman numerals. No inversions are given, as each chord has an E $\flat$  in the bass. Blank space signifies that the most recent harmony is still in effect, and a thick black line in the analysis means the chords cannot be given a roman numeral, though this does not mean they are without explanation.

Measures 41 and 42 are self-explanatory—an ascending tenor line moves in parallel sixths from the tonic all the way up to the dominant while the soprano line echoes the X-X-Y ascending minor third from the main theme. Measure 42 is the only time a dominant harmony includes the seventh, and these two measures are the “cleanest” in the entire section. Measure 43 then poses the first issue in analysis. Starting on a tonic chord, the top line again plays the E $\flat$ -E $\flat$ -G $\flat$  motif, now an octave lower. Beat 3 of this measure shows the first instance of the minor iii chord. The problem is then on beat 2, but the issue can be resolved through voice leading. The upper tenor voice, meaning the highest voice in the left hand, plays F $\sharp$ -G $\flat$ -A $\sharp$ , forming the (014) set. This internal voice leading is a recollection to the foundation of the movement in the non-tonal sections and serves as a connection between the chords on beat 1 and beat 3.

Measure 44 shows another puzzling harmonic moment. The destination on beat 3 is another tonic chord. However, the inner voices cannot agree on a functional harmony to play on beats 1 and 2. If one were to switch the place of the beats in either the tenor or the alto, shown by the crossing lines in figure 4.7 m. 44, the analysis becomes much simpler. For example, switching beat 1 and 2 of the alto voices shows that beat 1 is a simple i $^9$  chord and beat 2 is another IV, the exact same progression heard in measure 41. Switching the tenor voices would

yield the same chords in the opposite order, another fine interpretation. It is entirely likely that Rzewski just preferred the sound of the chords as they are written, but swapping the beats is meant to simplify this music and give it as many tonal connections as possible. Guessing the true intention of the composer is both impossible and a waste of time. When speaking with Dr. David Brooks, he shared with me his experience of playing *Four Pieces* for Rzewski himself in a masterclass. After performing, Dr. Brooks was eager to ask Rzewski many questions about the piece. The pieces had been written many years earlier, but Rzewski had programmed *Four Pieces* in his recital the following night, so Brooks assumed the pieces were fresh on the composer's mind. Even still, every time Dr. Brooks asked a question about interpretation or composition, Rzewski replied "I don't know" or "I don't remember." Brooks theorized that Rzewski "did in fact know the answer, but he was never going to tell you."<sup>63</sup>

The melody in measures 44-45 is another reference to the main theme, particularly the second phrase with its descent down to the mediant of the key. Harmonically, Rzewski spends the following bars (m. 47-48) reiterating the progression of the minor mediant to the major subdominant. This specific progression happens in measure 47 on beat 2 and 3, though the addition of an Eb to the Gbm (iii) on beat 2 raises some ambiguity. With this new pitch, the chord becomes a half diminished seventh chord on Eb,<sup>64</sup> followed by a root movement of a fifth to the IV, Ab. Adding a sixth to the chord (m. 47 beat 2) is no cause for alarm, especially given Rzewski's use of "add4" chords in other moments of this passage (m. 45 and 48). This is shown by the roman numerals on the top layer—iii<sup>add6</sup> to IV—and the roman numerals marked "ossia"

<sup>63</sup> Conversation with David Brooks, February 2, 2021.

<sup>64</sup> If including the bass Eb pedal, technically each of these minor mediant chords is an Eb half diminished chord. However, the chord on beat two of measure 47 is the only time an Eb is included in one of the upper voices. If a listener hears the pedal Eb strongly enough to include it in the analysis as such, the discussion immediately following this footnote can apply to the rest of the iii chords just the same.

are another interpretation of the same chords. If we continue to allow the influence of jazz harmony to live in this analysis, we could go as far as to call these two chords on beat 2 and 3 of measure 47 a  $ii^{\flat 7}$  (or in jazz terms, a  $ii7b5$ ) and a V in the key of  $D\flat$ . In the western canon, we typically use the term tonicization in reference to a single secondary harmony with dominant function, such as a  $V/V$  or a  $vii^{\circ}/iv$ . However, jazz and other musical styles will use chains of “tonicizing” chords to emphasize a new key area, often using so-called “two-five-ones.”<sup>65</sup> Therefore, it should be possible to use the “of” symbol (/) on a chord other than a dominant harmony. Beat 2 of measure 47 can be heard as a  $ii^{\flat 7}/VII$  and beat 3 may be a  $V/VII$  in the key of  $E\flat$  minor. Of course, the fact that a  $D\flat$  chord never occurs is no problem; secondary chords often do not end up going where they imply they may go.

The very next bar, measure 48 in the score, is repeated three times, fulfilling the X-X-Y formula on its own, except in this case  $X=Y$ . This bar fulfills two functions; first to show the descending minor third indicative of the main theme, and second to solidify the  $iii$  to  $IV$  motion that has been heard so many times already. The sound of the minor mediant chord is one that will return, and the composer is sure to emphasize this sonority many times so that the listener may be reminded of it when it does reappear.

After measure 48, both hands move to a lower register and the music starts to relax. Rzewski starts using a notation of headless stems. In some instances, there are still the correct number of stems needed to fulfill the rhythmic requirements of the measure, but in other places more stems are given than there are beats, implying that the performer should tremolo rapidly and use their own discretion. Regardless of whether or not the exact number of beats occur, the

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<sup>65</sup> See the head of John Coltrane’s “Giant Steps,” which traverses around the circle of fifths by major third in series of “two-five-ones.”

message conveyed is the same; the inner voices are not as harmonically important here as they were in a measure like bar 41. Despite that, the harmony remains consistent with the rest of the section until the end. The melody starting in measure 49 is similar to the melody used in measures 44-45, yet another reference to the main theme. It is harmonized with tonic, minor mediant, and major subdominant chords. A few repetitions of the i to iii motion precede the V chord in measure 54.

The Eb bass pedal stops, and the fifth scale degree, Bb, replaces it. The melody moves down to the leading tone D $\sharp$ , its expected resolution of course being tonic, Eb. Were this resolution to happen, the last three pitches of the melody, Gb-D $\sharp$ -Eb, would form (014), a great reminder of the trichordal building block of this movement just before the next transition. Indeed, the pitch class set is completed by the very next pitch (m. 54), but it is written as a D $\sharp$ . In our modern tuning system, this makes no difference whatsoever to the listener, but by writing this pitch as an unexpected enharmonic, the composer communicates to the pianist that this should not “have the character of a cadence,” to use Rzewski’s own words from the fourth movement. Whether or not Arciuli noticed this directly in his recording, the message is given subliminally, and the D $\sharp$  in measure 54 does not quite sound like an arrival at tonic—rather, it sounds as if something new will happen.



Fig. 4.8: Hexatonic grouping of “cadenza” transition and important pitch-class sets

The figure shows a musical score for a cadenza transition, divided into two systems. The first system, labeled 'm. 53', features a piano part with dynamics *pp* and *ppp*. The second system, labeled 'm. 54.5', features a treble clef part with dynamics *p* and *sust. Ped.*. The score is annotated with various hexatonic groupings and pitch-class sets, indicated by colored boxes and labels: Hex 2,3 (blue), Hex 1,2 (green), Hex 3,4 (red), Hex 0,1 (purple), and Hex 1,2 (green). A black bracket labeled (026) is placed over a specific chord in the first system. A black bracket labeled (0156) is placed over a specific chord in the second system. Arrows indicate the direction of the hexatonic groupings.

The figure above shows the cadenza-like transition between the B<sup>1</sup> and the B<sup>2</sup> sections.

This is one of two instances of unmeasured music in this movement, and it is full of references to the music heard so far in the 3<sup>rd</sup> piece. Immediately after the “deceptive” D<sup>♯</sup> mentioned above, the transitional (026) set is heard, marked in the figure 4.8 above with a black bracket.<sup>66</sup> The introduction motive follows in its entirety, set in hexatonic 1,2. In fact, starting from the G<sup>b</sup> on beat 3 of measure 53 and going to the E<sup>b</sup> just before the clef change in measure 54, there is an exact transposition of the opening theme of this movement, moved up a fourth (see fig. 4.5). There is some octave displacement in the beginning, but rhythm and pitch interval content has maintained.

After the treble clef, a hexatonic arpeggio is heard, and the similarities to the opening theme are lost. Another non-hexatonic moment occurs near the beginning of the second system in the figure above, and the set (0156) is formed. This set has been linked to the (0123) set

<sup>66</sup> If color is not available, pitch-class sets are shown by an open bracket as opposed to hexatonic transpositions being in closed boxes.

already as a Bartókian expansion set (see fig. 3.16), though its relation to the hexatonic collection has not been touched on. The hexatonic, octatonic, and chromatic scales are similar in that they are collections of semitone pairs displaced by a particular interval. The chromatic scale can be interpreted as 6 semitone pairs (C-C#, D-D#, E-F, etc.) displaced by a whole step. The octatonic scale is then 4 semitone pairs (C-C#, D#-E, F#-G, A-Bb) displaced by a minor third. And finally, the hexatonic scale is 3 semitone pairs (C-C#, E-F, Ab-A#) displaced by a major third. By expanding this displacement, no other cyclic scales can be made as the octave is no longer evenly divided, but the idea of separating a semitone can be applied to pitch collections. The next expansion would be the aforementioned (0156), which is two semitones (C-C#, F-F#) displaced by a perfect fourth. If the entire premise of the hexatonic set is a specific distance between semitones, then a set which accomplishes the same with a different distance is not so distant from the hexatonic (or octatonic/chromatic) collection as it may seem. This also connects the hexatonic scale to the Bartókian expansion sets, as they too are semitones displaced by a specific interval. Even further, this can connect the hexatonic collection to the (0123) semitone set, meaning the two single most harmonic forces of the sonata are not too dissimilar from each other.

In the second system, starting with the C# at the beginning of the hexatonic 3,4 collection, the opening theme has returned in its perfect fourth transposition. It is repeated verbatim until the beginning of the B<sup>2</sup> section in measure 55, so all the melodic findings from the opening apply here. It is worth noting that Rzewski does not use the constantly changing time signatures as he did in the introduction, giving further evidence for his use of composed-out downbeats there (see fig. 4.6).

Lastly, this section employs the use of the middle pedal, starting with the left hand C major triad in the first system of the figure above. Rzewski even marks those pitches with a harmonic diamond-notehead notation in the second system, implying that he wishes for the sound to carry through underneath the right hand melody. However, it is not the C major chord that will be heard—the initial hammer-strike on those pitches will have died out. Instead, the strings for those pitches will vibrate at the frequency of their partials when such a pitch is played.

Before continuing, and because this is not the main focus of this paper, the concept of harmonics will be briefly described. When a pitch is played, like playing a piano key, the pitch that is struck is known as the fundamental. But as that string vibrates, the waveform will continually divide itself in half, creating more pitches that are not always heard, but add to the color and timbre of a pitch. These halved frequencies are called partials, and the sequence of these partials is known as the harmonic series, the natural impetus for all of mankind’s musical scales.<sup>67</sup> In the figure below, the pitches of that left hand C major chord are shown as the fundamental, and the first nine partials are given afterward.<sup>68</sup>

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<sup>67</sup> Rasch, Rudolf. “Tuning and Temperament,” In *The Cambridge History of Western Music*. Thomas Christensen. Cambridge: Cambridge University Press, 2002, p. 5.

<sup>68</sup> Going beyond nine partials, the intervals become so small and so “out of tune” with the modern 12tet equal temperament that they will no longer resonate on the fundamental piano string.

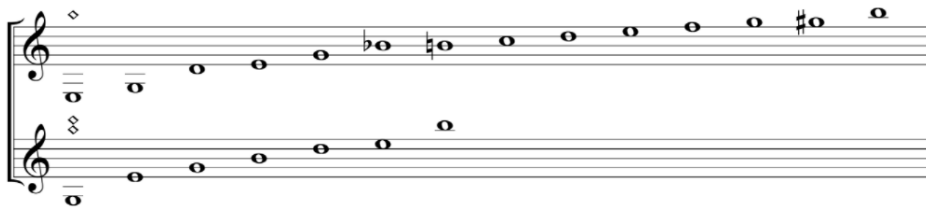
Fig. 4.9: Harmonics in the cadenza of the 3<sup>rd</sup> piece

In the figure 4.9, pitches have been given a harmonic diamond if the right hand plays that pitch at any time during this cadenza. The idea is that a given pitch with a diamond, which is not pedaled and not held with the fingers, will sustain by resonating on the partial of its fundamental. For example, in the second system of figure 4.8, during the only hexatonic 0,1 transposition, an  $A\flat$  is played in the right hand. This  $A\flat$  (or  $G\sharp$ , thanks to our modern tuning system) is the fourth partial of the  $E3$  harmonic series, and the  $A\flat$  will resonate audibly on the  $E3$  string that is being held by the middle pedal. To test this, softly depress the  $E3$  key so that the hammer does not strike the string, but so the damper has been lifted. Then, play the  $A\flat5$  staccato, hear the resonance, and cut it off by releasing the  $E3$  key. This proves that it is the  $E$  string that is vibrating at the  $A\flat$  pitch. When such an event occurs, it is not as if the partial pitch sounds exactly as it would if the hammer had struck it; it is an otherworldly and alien sound, almost as if the piano itself does not know where the sound came from.

Pitches that have been given two diamonds are pitches that are played by the right hand and fit in the harmonic series of two of the fundamentals. The timbre of these double diamond pitches is stronger, more present, and the resonance lasts longer than pitches with just one

diamond. In the second system of figure 4.8, where Rzewski has placed the left hand harmonic C major chord, the right hand plays a G4. This pitch is the third partial of the G2 harmonic series, and the fifth partial of the C2 harmonic series. This means that this G4 will resonate on both the G2 and the C2 string. At risk of going too off-topic, it is worth noting that the third and fifth partials are particularly strong in equal temperament—that is, the piano string is not too detuned from the just intervals formed by the harmonic series. To be exact, the G4 resonates perfectly on the G2 string as equal temperament will always keep octaves just, and the G4 on the piano will be only two cents underneath the harmonic series partial.<sup>69</sup> With such clean equivalencies on the G4 pitch, it is hard to ignore Rzewski’s very particular placement of the left hand harmonic C major chord. Looking at where it lies now, it is somewhat awkwardly in the first third of a system, placed after the return of the opening theme, and at the end of a three-note group. There would have been aesthetic reasoning to simply place the left hand “pitches” at the beginning of the system or directly in the middle, but instead it is given on this mathematically pure pitch. It is impossible to know if Rzewski planned out the harmonic series’ intentionally, but it seems safe to say that he at least heard some sonic significance to this G4 with which the left hand chord is placed.

Fig. 4.10: Extracted partials from the cadenza of the 3<sup>rd</sup> piece



<sup>69</sup> Rasch, Rudolf. “Tuning and Temperament,” p. 5.

The pitches above are all the partials that were played by the right hand in the cadenza. The top line is every such pitch, whereas the bottom line was narrowed down to just the double diamond pitches, those that were included in two fundamental's harmonic series'. Looking at the top line, (014), (0347), and several major/minor triads or seventh/ninth chords (all hexatonic subsets) can be found, though such a discovery is not very exciting when there are fourteen pitches to pull from. The bottom line creates an E minor 7<sup>th</sup> chord, and in reality, these are the pitches that are going to be heard. The others will die out so quickly or be so faint that perhaps not even the pianist could hear them, much less the audience. As a general rule of thumb, the closer the partial is to the fundamental, the stronger it will be. Across all the double diamond pitches, the "latest" partial is just fifth in line,<sup>70</sup> explained earlier to be only two cents flat and therefore relatively strong. This Em7 chord serves as a dominant functioning chord for the B<sup>2</sup> section that is about to arrive, set entirely in A minor. However, the minor quality of the dominant chord does obstruct this connection. Minor dominant chords are not foreign to this sonata, though, as Rzewski finishes the main theme with a v-i cadence (see fig. 1.1). And perhaps this "harmonic dominant" is not heard so much as it is felt in the back of the mind of the listener. And when the B<sup>2</sup> section does arrive, and the middle pedal is lifted, the listener is left missing something they may not have even realized was there.

#### 4. B<sup>2</sup> Section (mm. 55-66)

Immediately, the most recognizable aspect of the B<sup>2</sup> section is its overt quotation of the sonata's main theme. Across its many incarnations, this is one of the most identifiable versions of the main theme. The 2<sup>nd</sup> piece had many references to the theme, but none were as obvious as

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<sup>70</sup> To derive this number in line, look at the earliest a double diamond pitch occurs in either of its harmonic series'. For example, B5 is the 5<sup>th</sup> partial on the E3 fundamental, but the 9<sup>th</sup> partial on the G2 fundamental, thus it is counted as a 5<sup>th</sup> partial.

the present reference. Rzewski has pulled the listeners ear back to the 1<sup>st</sup> movement, but it is not as if the listener now recalls an old melody they first heard 20 minutes ago. Upon hearing this unmistakable melody, the listener may now have a moment of clarity where they realize that this main theme has been present all along; in the incessant ascending minor thirds across the sonata, in the hexatonic version of the main theme from the B section of the 2<sup>nd</sup> movement, in the X-X-Y internal repeats of the B<sup>1</sup> section of the 3<sup>rd</sup> movement, among countless other moments. Additionally, after hearing such a plain statement of the main theme, the listener will be unable to keep it from their mind for the remainder of the 3<sup>rd</sup> piece and throughout the 4<sup>th</sup> piece. This “decrecendo of complexity” from the first piece to the last is what makes the experience of hearing the entire sonata in one performance so moving. It is also what makes the 4<sup>th</sup> piece as successful as it is—Rzewski has brought the listener to the edge of their seat, and he has their mind and ears in the perfect position to blow them away with one final piece.

Fig. 4.11: Melody from the 3<sup>rd</sup> piece B<sup>2</sup> section compared with the main theme



Of course, no reference to the main theme would be complete without the ascending minor thirds. In the simplest sense, the main theme consists of only one other thing—a descent to the fifth scale degree after the minor thirds. Both of those criteria are met by the melody in the top system in figure 4.11 above. The only addition is a melodic ascent to the fifth scale degree, a dramatic moment for the melody, which has been given the fitting instruction “slowly and hesitatingly at first, then becoming more confident, but always expressive, with subtle variations

of speed.”<sup>71</sup> Most manifestations of the main theme will attempt to maintain the long-short-long-short pattern heard in the original, but few replicate it as simply as the melody here. The main theme is not given a time signature when it is first heard, but one might hear it as starting in a triple meter and moving to a duple (see fig. 1.1). However, the most recognizable aspect of the main theme, the ascending minor thirds, are clearly in a triple meter, and the melody here in the 3<sup>rd</sup> piece stays in a triple meter throughout.

In figure 4.11 above, the time signature 9/8 is given, though that is not truly accurate to the score. As described earlier, Rzewski uses an unorthodox notation of 2, 3, or 4 over a dotted quarter note, a notation also used in the 4<sup>th</sup> movement. For more discussion of this time signature, see page 108.

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<sup>71</sup> Rzewski, *Four Pieces for Piano*, p. 25.





The harmonic analysis given in the figure 4.12 follows the same rules as figure 4.7, save the issue of inversions. For the first half of this excerpt, measures 55 to 61, the bass pedals an A, so all chords are given without inversions. But starting in measure 62 this pedal stops, so inversions are given, though many chords are in root position. A roman numeral is understood to be in effect until another numeral takes its place.

If this section of the sonata is straightforward melodically for the sake of reminding the listener of the main theme, then the harmony must also be straightforward so as not to cloud the perception of the melody. Aside from a brief tag-along of hexatonic 3,4 from the cadenza, everything in this section is typical of simple tonal progressions, except for the minor iii chord, though this harmony is not foreign to the movement by this point.

One significant change from the B<sup>1</sup> to the B<sup>2</sup> section is the inclusion of the b6 scale degree, as opposed to sticking completely within the dorian mode. This allows for the major submediant chord to be played, and it will be featured many times in this passage. Additionally, the left hand “tenor” voices are now given smooth chromatic lines spanning a minor third—the bottom voice from E to G, and the top voice from C to E<sup>b</sup>. The voices move parallel up and down twice before the harmony changes in measure 62, like small waves pushing toward the shore and receding. On the downbeat of measure 60, the left hand is playing a C minor (iii) chord, while the right hand melody plays an E<sup>b</sup>. This gives more reason to believe that the chords are secondary to the voice leading. When following the path of these chromatic lines, the justification for both the major IV and the minor iii chord become much more apparent than they were in the B<sup>1</sup> section—it is just the natural path of the chromatic tenor voices. The harmonies then are merely incidental, but it seems too strong of a coincidence for this section to share such specific harmonies with the B<sup>1</sup> section by mistake—Rzewski may have conceived this section

first, or at the same time, but of course it is impossible to know. Whatever the case may be, this is just more evidence of the composer thinking through the piece in great detail on a large scale, across each page of music.

In measure 62, the texture thickens with the inclusion of chords in the right hand, root position chords, and the inclusion of a previously absent G $\sharp$  in the V chords. The melody also becomes more active, and the X-X-Y pattern of ascending minor thirds return, interspersed throughout the melody. Notice the cyclic nature of the harmonic progression that starts in measure 62; i-VI-III-V repeats in order until the close of the B<sup>2</sup> section in measure 66—however, by measure 64, the submediant is on the downbeat and the tonic chord is on the final beat. Measure 63 features a harmonic rotation on beat one, reminiscent of a “Stravinsky hiccup.” Rzewski cleverly switches the pattern in measure 63 by switching to the VI chord halfway through the first beat, as if playing the E instead of the F was a mistake. This allows the melody to shift down a full octave to tonic by the end of the bar, as opposed to ending on the fifth scale degree as measure 62 did.

The texture thins out, moves to a lower register, and accelerates until a V-i loop occurs. Here Rzewski writes “stop abruptly” on the V chord, with a fermata implying that the D-E major second<sup>72</sup> in the right hand should be held until the pianist moves on. Additionally, there is a quotation of the first movement wedge motif between bars 66-67; D-E moves to B $\flat$ -F (see fig. 2.3). Rzewski gives no instruction as to how long this pause should last. It is almost comical that the longest stretch of tonal music, a welcome guest to many listeners, is over so suddenly. Rzewski cannot give the listener too much resolution just yet, and for those audience members

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<sup>72</sup> If one includes the last pitch the left hand plays, a G $\sharp$ , these pitches form the (026) set, the connection trichord that Rzewski has used so frequently throughout the piece.

yearning for a moment of tonal music to soothe their ears, the upcoming C section is sure to subvert their wishes more than they may have expected.

### 5. C Section (mm. 67-101)

While the C section does contain the climax of the entire sonata, it is not so much dynamic or pianistic peak that culminates in what will be remembered as the climax, but rather overwhelming counterpoint across many voices for an extended period of time that will saturate the ears of the listener. This is not the most hectic or the most difficult music to grasp in the sonata—the first movement holds that title. Instead, the simplicity of the C section is what makes it so powerful. At virtually any given point in any voice, the set (014) can be heard imperceptibly, and with that the hexatonic transpositions. Fragments of the introduction motive from the 3<sup>rd</sup> piece's introduction cover every measure of the page, and it feels as if one cannot get away from these small pieces of sound. However, none of these sets or motifs are particularly displeasing to the ear, and while the music is not tonal, the listener has more than enough material to hold on to throughout the ride.

In fact, the C section is decidedly *atonal*, a distinction I feel is unique to this section. Many who hear Rzewski's music would immediately recognize it as "atonal," but I instead offer another term; "post-atonal." The music of Schoenberg, much of Stravinsky, Stockhausen, Boulez, and other early/mid-20<sup>th</sup> century composers is easily identifiable as atonal—that is, their music is written without tonal center in the traditional sense. However, too often musicians will use this term for anything that cannot be analyzed with roman numeral analysis. Take *Phrygian Gates* (1977) by John Adams, written in the same year as Rzewski's *Four Pieces*—is this music atonal? One would be hard-pressed to find any use of roman numerals in Adams' work, yet he uses key signatures throughout the piece (all 12, in fact) and the music within that key signature

is centered around the supposed “tonic.” *Phrygian Gates* does not use pitch class sets, nor serialism, nor western triadic harmony.

For another example by the same composer, Adams’ *American Standard* (1973), mvmt. 2: “Christian Zeal and Activity,” offers a similar perspective with very different music.<sup>73</sup> This piece is written for string orchestra, and it is set entirely diatonically, playing an exceedingly slowed arrangement of “Onward Christian Soldiers.” On top of this, the conductor chooses a recording to splice and play over the orchestra. Adams’ chose an angry televangelist in his recording, and Edo de Waart chose a pastor talking about Jesus being drawn to a withered hand. Does the word atonal truly describe this music? Is Adams not taking in more information than composers from the 2<sup>nd</sup> Viennese school were doing half a century earlier? This is the *ars combinatoria* that George Rochberg spoke of—composers should use all the information available to them, not just drawing from the music of the most recent decades, or pulling from a particular time period centuries ago.<sup>74</sup>

Returning to the Rzewski sonata, a large portion of this music (and Rzewski’s music as a whole) is what many would consider “atonal,” but I believe it to be “post-atonal” in the sense that even through its atonal means, it has tonal connections. This is not the case for the C section. This section in the 3<sup>rd</sup> piece is going to have tonal connections on a macro sense; it is connected to the opening theme, to hexatonicism, to the rest of the movement, and each of those things have their own tonal implications, but the C section on its own does not. Below is a page of score from the same movement of Rzewski’s *North American Ballads* mentioned earlier, “Winnsboro Cotton Mill Blues.” This piece also uses the (014) set heavily, enough so that just a glance at the

<sup>73</sup> Adams, John. *The Chairman Dances*. Nonesuch Records (Nonesuch 79144). CD. 1987.

<sup>74</sup> Auner, *Music in the Twentieth and Twenty-First Centuries* p. 272.

score will reveal many imitations of the trichord. However, this music is in B $\flat$  major, and the D $\flat$ 's that fill out the (014) set (such as B $\flat$ -D $\flat$ -D $\sharp$  or D $\flat$ -D $\sharp$ -F $\sharp$ ) are reinterpreted as “blue notes” as this section of the piece is imitating the vernacular blues style. At the same time, these are not simply grace notes, as Rzewski will liberally use the split-third chord<sup>75</sup> as a moment of resolution. Here, Rzewski is able to use the (014) set with tonal connections, as he has several times in the 3<sup>rd</sup> piece of *Four Pieces*, though he will not do so in the C section.

Fig. 4.13: Page of score from “Winnsboro Cotton Mill Blues”<sup>76</sup>

The image shows a page of musical notation for the piece "Winnsboro Cotton Mill Blues". It consists of three systems of music, each with a grand staff (treble and bass clefs). The first system begins with a "tempo" marking and a "con pedale" instruction. The second system features a left-hand ostinato and dynamic markings of "ff" and "f". The third system continues the piece with similar dynamics and includes a "8..." marking at the end of the first measure.

On the downbeat of measure 67, the set (0167) is heard. This set is another semitone displacement set and has ties to the (0123) set. The left hand ostinato stays within (0167), while

<sup>75</sup> Split-third chord refers to a triad with both a major and minor third: (0347) B $\flat$ -D $\flat$ -D $\sharp$ -F $\sharp$ .

<sup>76</sup> Frederic Rzewski *North American Ballads*

Martschenko

the right hand moves on to play the opening theme transposed down a major 3<sup>rd</sup>. With this restatement of the opening theme come hexatonic groupings, though measures 71-72 deviate from hexatonicism and substitute the set (016), a subset of the ongoing left hand ostinato. The ostinato stops in measure 75, and the stark octaves from the introduction return, building tension to a large fully hexatonic 1,2 chord marked fortissimo. Following this, the introduction motive is played in its original transposition, growing even still to a triple forte (014) crash at the bottom of the piano.

Fig. 4.14: Linear hexatonic grouping of the "fugue" in the C section

The image displays a musical score for a fugue in the C section, spanning measures 79 to 85. The score is written for four staves: two treble clefs and two bass clefs. The music is in 3/4 time. The score is annotated with various hexatonic groupings, labeled as Hex 0,1, Hex 1,2, Hex 2,3, and Hex 3,4. These groupings are represented by colored boxes and lines connecting notes across different staves. The labels are color-coded: Hex 0,1 (pink), Hex 1,2 (green), Hex 2,3 (blue), and Hex 3,4 (red). Arrows indicate the direction of the groupings, showing how they span across staves and measures. The score includes various musical notations such as notes, rests, and accidentals. The overall structure shows a complex interweaving of these hexatonic patterns across the four staves.



The image displays a musical score for Martschenko, covering measures 86 to 92. The score is written in 3/4 time and features four staves: two treble clefs (top two) and two bass clefs (bottom two). The music is heavily annotated with colored boxes and arrows, each labeled with a hexagram code: Hex 1,2 (green), Hex 3,4 (red), Hex 2,3 (blue), Hex 0,1 (purple), and Hex 3,4 (orange). These annotations highlight specific rhythmic and melodic patterns across the staves. Some annotations include the Greek letter  $\delta^{III}$  and arrows indicating the direction of the pattern's movement. The score includes various musical notations such as notes, rests, and dynamic markings like  $\delta^{III}$ .

The above figure contains measures 78 to the downbeat of measure 94 of the 3<sup>rd</sup> piece. This is the “fugal” section that has been mentioned before; not fugal in the sense that it contains subject and answer, but rather that it is predominantly four voice counterpoint where each voice is based on the same themes and concept—the (014) set, and by extension hexatonic grouping. At times there are more than four voices, as can be seen by the inclusion of harmonies and even multiple beams in one line of staff. Figure 4.14 attempts to lay out each voice as it seems in the original score, informed by stem direction and register, though the main goal is to separate the voices. The designation of a particular voice is inconsequential to the overall effect.

The purpose of breaking up the voices is twofold; showing clearly the linear nature of each voice in the counterpoint, and also for the sake of cleanliness and room for the hexatonic labels to be included. Ironically, the result of the latter purpose is still a hectic image. While a hexatonic “box” may stretch across multiple staves, this is done mainly to reduce the number of symbols on the page—different staves being included in the same box does not inherently mean they are part of the same musical idea. To best use figure 4.14, follow each voice individually and take note of how Rzewski is able to switch between hexatonic transpositions, overlap multiple transpositions and even (014) sets, and use fragments of the introduction motives throughout every bar of score.

The same guidelines apply to figure 4.14 as they have applied to all similar figures throughout the course of this paper. Every box is connected to a hexatonic label, and the pitches within that box are included in the given hexatonic transposition. In most cases, pitches that fit in two transpositions are shown by overlapping boxes, but some overlap has been left out. Similarly, many of the transpositions may be interpreted differently, or reworked so that they may include other pitches. The primary goal of the figure 4.14 is such that linear usage of the

(014) set and introduction motives may be showcased. There are many cases of vertical hexatonicism that have been de-emphasized for this purpose. For example, in measure 86, beat 2 of the alto voice, the label could have been simply hexatonic 3,4 for the first three pitches (16<sup>th</sup>-32<sup>nd</sup>-32<sup>nd</sup>) and hexatonic 0,1 for the remaining two 32<sup>nd</sup>'s. However, by wrapping around, one can find three (014) melodies that would have been ignored; B-G-G# in the top register, D#-E-C in the middle register, and C-A-Db in the lower. The prioritization of (014) in this manner is the primary goal of figure 4.14, as this is what the listener hears. There is simply too much going on for most of the music to comprehend specific harmonies as they happen vertically—instead, the listener must find small horizontal events to ride on. The slow tempo of the section, 80 BPM to the eighth note, allows the pianist to move constantly and surely through what Arciuli calls the most difficult passage of the entire sonata.<sup>77</sup> Dr. Brooks hears this passage as the massive steps of an elephant; slow, but not sluggish, always confident and moving onward.<sup>78</sup> The dramatically low bass line helps this metaphor tremendously.

There are a few moments of non-hexatonic music in this passage. In the first beat of measure 82, every voice but the bass plays pitches that do not fit easily in any hexatonic transposition. But when taken together, the set (01234) appears. The third movement has had fewer references to the (0123) set than any other movement, but its influence has not been absent. Most frequently, the (0123) semitone cluster has been referenced through the “displaced semitone” sets, such as (0156) or (0167). Such is not the case for (01234), but its tie to (0123) is obvious still. The voicing seen in the right hand (soprano and alto parts in this case) of measure 82 is one that Rzewski has used a few times throughout the sonata, and will make a large

<sup>77</sup> Conversation with Emanuele Arciuli.

<sup>78</sup> Conversation with David Brooks.

reappearance in the 4<sup>th</sup> piece. It is marked by a large interval, usually between a 7<sup>th</sup> and a 9<sup>th</sup>, and either a major or a minor second on either end of the large interval. The same voicing is seen in measure 85 in the right hand<sup>79</sup> where it forms the set (012), another reference to the semitone cluster set that is used through the entire sonata.

At the end of measure 84, in the alto voice, the hexatonic 2,3 transposition is used. However, the A $\flat$ , marked with a red X in figure 4.14, does not fit and it interrupts what would otherwise be an obvious (014) motif. This A $\flat$  might then be interpreted as a non-harmonic tone, simply accentuating the B $\flat$  it precedes. The issue of non-harmonic tones in post-tonal music has been mentioned already, though in reference to far less complex music (see p. 77). The inclusion of non-harmonic tones in this section is worrisome, because the moment they are allowed, nearly anything could become non-harmonic. Despite this, the prioritization of (014) superseded this worry, and the present analysis will include the non-harmonic tone.

Of interest is measure 88, where the pace slows briefly, and the left hand returns to the tremolo notation first seen in the 1<sup>st</sup> piece (figure 2.2). The left hand pitches on the downbeat of measure 87 are the exact same as the pitches at the very beginning of the “fugue,” B-F $\sharp$ -A $\sharp$ . However, they move shortly afterward to D $\sharp$ -A-C $\sharp$ , forming the set (026), the connection set that has been used often in this movement. Hexatonicism can still be found linearly, but this is one of a few important vertical moments in this section.

In analyzing this section of the movement, a large number of typos have been found. In some cases, I cannot say with a surety that the publisher is incorrect, but through this hexatonic analysis, most are obvious. All but the final typo have been corrected in figure 4.14, so following

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<sup>79</sup> It is easiest to find this voicing in the original score, as figure 32 splits it up into two voices.

along in the original score is most beneficial to see these typos. First, there is a rhythm error in measure 86; the right hand is given an eighth note with pitches C-B when it should be a sixteenth; there are too many beats in the measure. In bar 90, the left hand, or tenor and bass voices, move in parallel major sevenths, as they do again in measures 93 and 94. In the 4<sup>th</sup> beat of m. 90 where the bass has been given an A $\flat$ , the G in the tenor is lacking a natural sign, and the G $\sharp$  from the previous beat is still in effect. Hexatonically, this works out either way, but there is no reason for Rzewski to have included an augmented seventh and break the pattern of major sevenths at this moment. A similar issue occurs in the last soprano pitch of measure 91; the E needs a natural sign. In this case, the 8<sup>va</sup> symbol is likely to have negated the E $\flat$ , though in such complicated music a courtesy accidental is almost always necessary.

The final typo is the most puzzling. On beat 3 of measure 90, the alto voice plays a D $\sharp$ , a pitch that does not fit hexatonically with the surrounding hexatonic 0,1 transposition. However, it is given a slur marking to a new voice in the left hand, moving to a B $\sharp$ , which is repeated by the tenor. This lone minor third feels strangely out of place, as the voice disappears following this moment. I believe the first B $\sharp$  was intended to be a B $\flat$ , then meeting the tenor on a B $\sharp$ . This would create a (014) motif and would also satisfy the 3-note hexatonic rule and give the alto D $\sharp$  a designation of hexatonic 2,3. This is just speculation based on the surrounding music, so it was not changed in figure 4.14.

The fugue ends in measure 95, and the second instance of unmeasured music in this movement occurs. The right hand returns to the tremolo notation used in the first piece. The top voice of these tremolos repeats the beginning of the introduction theme, transposed up a perfect fourth. It is harmonized with a few voices which show obvious (014) linear motifs. Once relaxed,

the tempo returns “as before,” though the fugal section does not. Instead, Rzewski uses rapid single voice hexatonic lines, sticking to one transposition longer than the fugal section would. Eventually multiple voices come in, and both voices reach dramatically to the edges of the keyboard, slowing with a massive crescendo, climaxing on a triple forte tremolo chord. This tremolo is instructed to be cut off short before the pianist continues on to the B<sup>1'</sup> section, starting the roundabout of the arch form. This chord is set almost entirely in hexatonic 1,2, the transposition that Rzewski returns to at many important moments in this movement. The hexatonic 1,2 transposition is muddied by a bass B<sup>♭</sup>. The inclusion of this bass note is fascinating. It seems as if Rzewski wanted a punching bass-resonance to accompany the tremolo chord, for which purpose he could have chosen any extremely low pitch. But if he had chosen either a B<sup>♭</sup> or an A<sup>♯</sup>, the last two pitches on the keyboard, either option would have fit in the hexatonic 1,2 transposition. Additionally, if he had chosen B<sup>♭</sup>, the two bass notes just before this moment (D and D<sup>♭</sup>) would have completed a (014) set, and it would have foreshadowed the B<sup>1'</sup> section about to occur, which is set in B<sup>♭</sup> minor.

B minor is the overall “key” of this sonata. The main theme occurs many times in B minor, various tonal sections in the sonata are set in B minor or in a closely related key, and the pitch B is often included at important moments, such as being the first pitch one hears after the introduction of the 1<sup>st</sup> piece, the first pitch heard in the 2<sup>nd</sup> and 4<sup>th</sup> pieces, as well as being the first pitch heard at the beginning of the fugal section, returning in measure 88, 95, and 96. With so many cadences, tonal or otherwise, being centered on B, it makes sense to end the C section with a bass B<sup>♭</sup>. The hexatonic 1,2 transposition is the first used in the 3<sup>rd</sup> movement, the first

heard in the C section, and other important moments throughout the movement, so the pairing of two significant centers, B $\natural$  and hexatonic 1,2, is not so unexpected in measure 101.

#### 6. B $^{1'}$ , B $^{2'}$ , and the Missing A' Section (mm. 102-136)

The sections in the second half of the arch form are much shorter than their counterparts in the beginning of the movement. The shortened time span means Rzewski needs to remind the listener of an earlier section immediately and efficiently, which he manages well. The B $^{1'}$  section (m. 102-107) starts immediately with the arpeggiated internal repeats, previously in E $\flat$  dorian and now in B $\flat$  minor (sharing the same key signature). Rzewski also includes the ascending minor third melody in the top voice of the arpeggios from the beginning of the section. The next set of X-X-Y internal repeats in measure 104 features a similar register change to measure 41, still maintaining the X-X-Y ascending minor third melody.

Measure 106 is similar to measure 48 in that they are both repeated three times, fulfilling the X-X-Y formula where X=Y. These two bars also use similar harmony; measure 48 is a minor iii moving to the major IV, and measure 106 is essentially a i chord moving to the minor iii. The B $\flat$  minor chord on beat one includes a C and a G $\flat$ , which muddy the analysis. But when taking those two pitches with the minor triad, the set (01568) is seen; the same set used throughout the opening march-like accompaniment from the A section. Perhaps Rzewski is preparing the listener for the return of the A section, though it will never come. Recall that the minor iii chord can also be seen as a ii $^{\flat}7$ /VII when including the pedal tone in the bass, in this case a low B $\flat$  under the D $\flat$  minor triad (see p. 123). Following the supertonic, an E $\flat$  dominant harmony would be expected, becoming the V/VII, and indeed the transition to the B $^{2'}$  section uses such a chord.

The higher register, paired with the *una corda* and rolling the chord makes for a pleasant sonority at the start of measure 107. After the Eb7 is heard, the chord melts into hexatonic 3,4 in a bit of counterpoint, perfectly introducing the lateral hexatonic lines of the B<sup>2</sup> section (m. 108-128). The figure below shows the beautiful five voice counterpoint Rzewski uses in measure 108.

Fig. 4.15: Lateral hexatonicism in the B<sup>2</sup> section mm. 108-114

The figure shows a musical score for measure 108 in B-flat minor, 3/4 time. The top staff is the melody, marked '8va'. Below it are four staves representing the accompaniment. The score is annotated with colored boxes and labels indicating hexatonic groupings:

- Hex 1,2 (Green):** A box spanning the first two staves (melody and the first accompaniment staff) from the first two notes of the measure.
- Hex 0,1 (Pink):** A box spanning the second and third staves from the last two notes of the measure.
- Hex 2,3 (Blue):** A box spanning the third and fourth staves from the first two notes of the measure.
- Hex 0,1 (Pink):** A box spanning the second and third staves from the last two notes of the measure.
- Hex 2,3 (Blue):** A box spanning the third and fourth staves from the first two notes of the measure.
- Hex 1,2 (Green):** A box spanning the first and second staves from the last two notes of the measure.

The top staff shows the melody played by the right hand—this is the same melody from the B<sup>2</sup> section now in Bb minor (previously in A minor), and its obvious similarities to the main theme of the sonata have been explored (see fig. 4.11). The bottom four lines are taken from the accompaniment played by both hands. Because of the consistent rhythmic pattern, the 2<sup>nd</sup> and 5<sup>th</sup> staff could be seen as one voice, and likewise the 3<sup>rd</sup> and 4<sup>th</sup>, but differences in hexatonic grouping make four distinct voices necessary. While the vertical harmony is at times reasonable,



such as the  $Bbm^{+11}$  in measure 108, or the minor seventh chords in measures 111 and 114, the harmony here is truly built on horizontal usage of (014) and hexatonicism. Each voice spells out a split third chord (0347) in the first four measures, then moves by whole step to a new transposition where (014) is used. For example, following the fifth voice, we see  $Bb-Gb-G\sharp-Eb$  in the first four bars forming (0347) and  $Db-Bb-A\sharp$  in the next three, forming (014). While this counterpoint is not interweaving and metrically displaced like the fugal C section, it is still constantly moving forward—less like an elephant and more like a little stream.

In measure 115 the counterpoint thins to just three voices. Each voice continues to use hexatonicism, though no longer are they constrained to the split third chord or (014). Additionally, the connective (026) is brought back into the melodies. It occurs three times in the same transposition,  $Eb-Db-A\sharp$  (see the right hand of m. 114 beat 3 to m. 118 beat 2). Twice this same melody starts with an  $F\sharp$  (highest voice m. 115 and middle voice m. 117), making the full tetrachord [1,3,5,9] (0248). This melody is drawn from the end of the sonata's main theme—in solfege, Sol-Fa-Me-Do, though here in this three-part counterpoint it finishes on the leading tone instead of the tonic, Sol-Fa-Me-Ti. This fragment of the main theme was also used heavily on the last page of the 2<sup>nd</sup> movement, a satisfactory means of finishing out a movement by using the final moments of the main theme. Rzewski finishes the  $B^2$  section by recalling hexatonic melodic moments from the opening A section, preparing the listener for the close of the arch form.

However, this close never comes. The Slominsky-14 scale that was played in the first transition, measure 33, is played again transposed down a fourth (m. 125). Here it is a wider scale, spanning a greater distance, but it is only played once. The listener expects to hear it three

times, before the return of the final A section, but these expectations are subverted by a low, thick chord marked fortissimo pounded out 36 times (m. 129), becoming softer all the while. This chord is an F major triad played by the left hand and G $\flat$ -D $\flat$  played by the right hand, forming the set (01478). Were the chord given an additional B $\flat$ , filling in the rest of the G $\flat$  major chord with the supposed tonic of the last two sections, the set would be (013478), the tremolo chord from the first movement consisting of two minor chords placed right on top of each other. This set has made an appearance in every movement so far, often interrupting some other set, be it hexatonicism, the Bartókian expansion sets, or even tonality. Even as it is without the added B $\flat$ , (01478) is similar to the hexatonic set in that if the G $\flat$  were to move a whole step in either direction, the set would become (01458), just one pitch shy of fully hexatonic. At the same time, (01478) is a superset of (0156), one of the Bartókian expansion chords.

The final chord of the piece (m. 134) is the split third chord (0347), another hexatonic subset in hexatonic 1,2, the transposition used so often throughout this movement. It is spelled B $\flat$ -G $\flat$ -D $\flat$ -A $\natural$ , with the voicing [8][7][8], another symmetrical voicing like the march-like accompaniment [7][1][7] voicing from the A section. Of course, the pitch choice is not arbitrary, the music of the previous two sections has been centered on B $\flat$  minor. This chord is also close to being a plain B $\flat$  minor triad, were the G $\flat$  (b6) to fall to F, and the A $\natural$  (#7) to push up to B $\flat$ .

Voice leading between the repeated chord in m. 129-133 and the final chord in m. 135 could be traced, but that is not how the listener will hear these chords. The first chord is played so many times that it becomes nothing more than a noise, with no harmonic function or reason. It fades to nothing and there is a full measure of rest before the final split third chord is played. There is no voice leading to be heard because the voices literally die out.

Perhaps Rzewski wanted the conclusion of this work to be unsettling. With the absence of the A section, the listener is already missing something they expected to be there. This paired with an unfamiliar sound, droned out until monotony, is enough to cause the listener to reevaluate everything they just heard. Even still, every other movement in the sonata has a far less definitive ending than the 3<sup>rd</sup> movement, yet another puzzling thought for the listener—"if this piece ended satisfactorily, why do I feel uneasy?" These thoughts materialize quickly and with just enough time before the 4<sup>th</sup> piece begins. While not every question the listener has will be answered over the course of this upcoming movement, Rzewski has aptly prepared his audience for what is to come.

## Chapter V

### Fourth Piece

#### A. Form

For a final time, the form of the 4<sup>th</sup> piece is another arch form, cast much more simply than the 2<sup>nd</sup> and 3<sup>rd</sup> movements, set in ABCB'A' (see figure 5.1). The simplicity of this arch as compared to the previous two movements aids Rzewski's goal with this final piece; clarity and directivity. The 4<sup>th</sup> piece is a fast-paced movement filled to the brim with content compressed into a short amount of time, but the ideas have been simplified to help the listener comprehend the piece. The entire sonata has featured a "decrecendo of complexity" from the dense first movement to the clear fourth movement; this, in part, is what makes the final movement of the sonata as popular as it is. Dr. Brooks has found that even listeners who may not favor most of Rzewski's music all seem to "love the 4<sup>th</sup> piece."<sup>80</sup> Having performed this movement myself, I believe that it deserves its place in a program alongside Beethoven, Liszt, and other pianist/composers. In his anthology of 20<sup>th</sup> century composers, Brian Morton cites a critic who says Rzewski "will not be seen as a major figure of his generation, but the best of his works deserve a place in the repertoire."<sup>81</sup> It is my sincere hope, especially now that Rzewski has passed away, that this opinion will prove to be incorrect, that Rzewski's music will be reexamined, and that he will be remembered alongside other composers and pianists of his day. However, this critic is correct in saying that Rzewski's best works deserve a place in the repertoire, and this 4<sup>th</sup> movement of *Four Pieces* is one such piece.

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<sup>80</sup> Conversation with David Brooks.

<sup>81</sup> Morton, *Contemporary Composers*, p. 795.

Fig. 5.1: Form of fourth piece, chart showing measure numbers

**A - B - C - B' - A'**

<b>Formal Section and Transitions</b>	<b>Measure Numbers</b>
A Section	mm. 1-12
B Section	mm. 13-23
Transition	mm. 21-23
C Section	mm. 24-39
B' Section	mm. 40-65
Transition	mm. 63-65
A' Section	mm. 66-67

The A section (m. 1-12) begins with the highest B on the keyboard being struck repetitively. Included within a paragraph of instructions underneath the first system of score, Rzewski instructs the player to stroke each stemmed pitch or chord repetitively any number of times. The chords should melt together, “fading in and out...imperceptibly.”<sup>82</sup> The pianist must constantly perform finger substitutions across the keyboard to move to the next chord, while always maintaining a constant pulse of roughly six attacks per second. While an odd instruction at first, once the pianist understands, it is a comfortable maneuver to make and makes a great deal of sense pianistically. Rzewski says the effect should be that of “exciting a large gong,”<sup>83</sup> though the intent is not to strike a gong loudly in the center creating a huge crash. If one drags a mallet across a gong, the vibrations can create indeterminate pitches, sounds unique to individual gongs, and the reverberations can last for quite some time. It can be compared to the drawn-out journey from the top to the bottom of the keyboard that the pianist must take in measure 1.

<sup>82</sup> Frederic Rzewski *Four Pieces* pg. 31

<sup>83</sup> Frederic Rzewski *Four Pieces* pg. 31.

Beginning in measure 3, Rzewski brings back the unorthodox time signature from the 3<sup>rd</sup> movement; 7 over a dotted quarter note (see page 108). Every measure for the remainder of the A section is played twice, each with the same beaming of constant eighth notes. The result of this process creates an increasingly dense musical texture leading to measure 8 which consists of all 12 pitch classes. From then on, the music thins out with remnants of the main theme until measure 12, at which the music has transitioned to just the eight diatonic pitch classes of E minor, where the B section will pick up.

Like a light switch, the B section (m. 13-23) takes off with an overt quotation of the main theme. This music is completely tonal, featuring quick, dancelike rhythm, and is easy to digest. This is the moment of catharsis that Rzewski has been teasing for the last half hour. The melody is upbeat, it is heard in its entirety, it is accompanied by simple harmony; every moment of the sonata thus far has prepared the listener for this moment of gratification. It carries the listener so well into the rest of the piece that even the C section, which contains some of the most jarring sounds of the entire sonata, is not so bothersome to audience members who may be offended—“they all love the 4<sup>th</sup> piece.”

Measure 24 begins the rhapsodic C section (m. 24-39), split plainly into hexatonic transpositions. For the performer, the beginning of this section feels a great deal like playing a Brahms rhapsody with the large chords, soaring melodies, crossing hands, and arpeggios stretching across the keyboard.<sup>84</sup> Not long after, the music takes a sharp turn, and over the course of measures 30 and 31 Rzewski is skillfully able to maintain the large Brahms-like slurs and mold them into staccato Webern-like pointillism. The composer’s improvisatory roots in “Musica Elettronica Viva” come through in four measures, or “units,” starting in measure 34.

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<sup>84</sup> See two pieces of Brahms, op. 79 in G minor and op. 119 in Eb Major.

The performer is instructed to play “repetitions and permutations” of the four units in any order as many times as desired. The effect is close to the famous Rzewski improvised cadenzas that occur so frequently in his other works—though, this aleatoric section is not quite so comparable for two reasons. In this case, the music is predetermined, only the order of units is not. Secondly, Rzewski offers a suggested order by which one might play the units. In Arciuli’s recording of the work, he follows the first half of this suggestion and then continues to m. 38, an outcome Rzewski would certainly have found acceptable. Emanuele Arciuli said Frederic Rzewski was “not a teacher. He doesn’t say what he really wants...because he respects what you [the performer] do if it is different.”<sup>85</sup> In the composer’s 1980 recording of *Four Pieces*, he does not follow the suggested order at all.

After the aleatoric passage, the pianist must travel to the very bottom of the keyboard to perform a bass ostinato repeating the set (012), a subset of the frequently used (0123) semitone cluster set. Here in measure 39 is the beginning of the B’ section (m. 40-65), the turn-around of the arch form. The right hand plays the second half of the main theme transposed to B $\flat$  minor. The inclusion of the second half of the main theme is interesting in that most references of the main theme utilize the first half of the theme, the ascending minor thirds. Following this, the repeated chords and finger substitutions from the opening return, signaling an apparent return of the A’ section—Rzewski even says, “repeat chords as above.”<sup>86</sup> However, the dynamic is now extremely soft with no crescendo, the chords ascend up the keyboard, and most importantly the chords are nothing but perfect fifths. These characteristics are enough to separate the A section for the listener from this “fake-out” in measure 46. The perfect fifths travel from the lowest B $\flat$  to

<sup>85</sup> Conversation with Emanuele Arciuli.

<sup>86</sup> Frederic Rzewski *Four Pieces* pg. 35.

the highest, where it continues to be constantly struck. The main theme returns in the left hand as it was expressed in the first B section, this time now set in Bb major.<sup>87</sup> The theme continues, undergoing a couple of modulations, first by chromatic mediant to D major, and then by relative minor to B minor—the same two keys ambiguously suggested by the main theme. Rzewski even includes a key signature in m. 51, something he has only done a handful of times in the entire sonata.

Page 36 of the score will be the last time that a direct reference of the main theme is heard in the sonata. The B minor section continues into measure 55, and a huge crescendo carrying the pianist's hands to the bottom of the keyboard will allow for some drastic dynamics. The performer ends up on the lowest B in measure 60, forcefully repeating the lone pitch until a marcato semitone is hit. This passage contains the only moment of silence in the entire movement; in fact, most of the movement up to this point has featured perpetual motion with consistent eighth notes. That is not to say there has not been rhythmic variety; individual hands and melodies are certainly given more interesting rhythms, but at any given point up to this moment (and following it) there is a constant pulse of eighth notes between the two hands. Even the “gong-like” A sections are set at “circa 6 attacks per second,” which should produce the same result as the tempo marking of dotted quarter note=120BPM (dotted half note=60BPM, meaning six eighth notes in one second).

Rzewski did not often talk about *Four Pieces*, but in an interview with Sujin Kim in which the two spoke about the *North American Ballads*, Rzewski brings up the 4<sup>th</sup> movement of *Four Pieces*. He says, “There is a work called *Four Pieces for Piano*, and the fourth one has a lot of repetitions in it. And sometimes it seems like the sound is moving around in space, flowing

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<sup>87</sup> One of the fantastic things about this rendition of the main theme is its modal ambiguity—see page 162.



around. It depends a lot on the acoustics at the time, of course, and the way it is played. I think this [“Winnsboro Cotton Mill Blues”] is a similar case. You know, there were experiments carried on by psychologists in the 1950s. People were repeating and hearing the same words over and over again. If you take one word or phrase and say it over and over, you start to hear different words.”<sup>88</sup>

The transition that leads to the return of the final A’ section begins in measure 63. As the constant eighth-note texture returns, Rzewski uses tone rows across six intersecting voices in the lowest register of the keyboard. These voices continually grow to one last crash at the lowest B on the piano, and with it the A’ section begins in measure 66. The gong-like repeated chords return with several familiar harmonies, swelling to fortissimo and moving up the keyboard until finally reaching the highest B♯. This pitch is repeated on its own at triple forte, eventually fading *a niente*. While the B♯ heard at its loudest volume, the left hand creeps in sporadically with the highest A♯, starting at triple piano. As the B♯ dies out, the A♯ is struck with increasing intensity, still being repeated intermittently. The pianist will continue striking the A♯ after the B♯ has disappeared—Rzewski instructs at least two more repetitions. The score says, “The final notes should not have the character of a cadence but rather the contrary, of something unfinished; it should not be clear whether another sound is coming, until all sound has in fact died away.”<sup>89</sup>

Arciuli follows this recommendation superbly in his recording, and likewise when Dr. Brooks performs this movement, it seems as if the room has frozen in time, waiting for the next A♯ strike. Dr. Brooks shared the story of his performance of this movement for Rzewski in a masterclass; it had always been Brooks’ strategy not to move a muscle until the audience decided

<sup>88</sup> Kim, *Understanding Rzewski’s North American Ballads*, p. 123.

<sup>89</sup> Frederic Rzewski *Four Pieces* pg. 37.

to applaud—in essence, the listeners decided when the piece was over. However, everyone in the room knew that the composer was present, and so they all waited for a sign that would convey his mark of approval. Dr. Brooks says he waited for what seemed like an eternity, but Rzewski never clapped.<sup>90</sup> Brooks eventually abandoned his strategy and stood to bow, and of course received his applause. However, this may not be the embarrassing story that the pianist thought it was. Perhaps Brooks performed the piece so well that not even the composer himself was sure if another sound was coming.

## **B. Harmonic Analysis**

### **1. A Section (mm. 1-12)**

The opening chords of the 4<sup>th</sup> movement are colorful, expressive, and capable of telling a story as they traverse down the piano. One of the things that make each of these chords so engaging is the fact that each chord is different than the next. There is no solid thread connecting this group of 43 chords to one another. That is not to say that these chords are not noteworthy,<sup>91</sup> but there is not a scale, a row, or a common prime form that connects these chords together. In truth, they are connected by their normal forms. Figure 5.2 below shows the normal and prime forms of the first eight chords.

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<sup>90</sup> Conversation with David Brooks.

<sup>91</sup> See the index for a chart of every chord in the A and A' sections, analyzed by normal form, prime form, the number of tones added and subtracted from the previous chord, and any significance the chord may have.

Fig. 5.2: Normal and prime forms of the first eight chords of the A section

Chord	Normal Form	Prime Form
1	[11]	(0)
2	[10,11]	(12)
3	[6,10,11]	(015)
4	[6,7,10,11]	(0145)
5	[6,7,9,10,11]	(01245)
6	[6,7,8,9,10]	(01234)
7	[3,6,7,8,9,10]	(012347)
8	[7,8,9,10,2,3]	(012378)

Finding connections among prime form sets, as one would normally do in a situation like this, reveals little. Each prime form is different, none are related to each other by complement or some other means. However, a comparison of the set's normal forms reveal that the chord succession is usually adding a pitch and taking away another. When thinking about the pianistic gesture that Rzewski asks of the performer, this makes a great deal of sense. Maintaining specific pitches is crucial if the pianist is to perform finger substitutions along the way. Sonically, this represents the "exciting [of] a large gong" that the composer asks for, as gong vibrations can last for a great deal of time. Even still, it can be seen that Rzewski is still bringing familiar sounds to these chords, as the first four chords form the hexatonic subset (0145). As always, the composer is cognizant of pitch as well, starting the movement on the pitch classes B and A $\sharp$ , the two pitch classes that will end the sonata, as well as being the tonic and leading tone of the overall key of B minor. When the pianist has traveled all the way to the bottom of the keyboard, the same two pitch classes are heard, B $\flat$  (A $\sharp$ ) and B $\natural$ .

From those two pitches begin the repeated measures in measure 3. Rzewski has added the pitch classes A and C to fill out the (0123) semitone cluster, a pitch class set that was only occasionally heard in the 3<sup>rd</sup> movement, but returns in full force within the finale. These two pitches echo the familiar ascending minor third melody, reminiscent of the main theme.

Additionally, these pitches are the exact same as the first four notes of the additive tone row from the A' section of the first piece (see fig. 2.5 and 2.13). Similar to the beginning of the A section, there is nothing clearly connecting the harmony in measures 3 through 12. One can certainly find many recognizable chords, such as hexatonic subsets, (0123) clusters, and even Bartókian expansion chords. More traces of the main theme can be found as well. The two highest pitches of measure 5 suggest a descending minor third motive in B $\flat$  minor, heard again plainly in measure 40. Many fragments of melody carry over between two or more measures. For example; m. 9 and 10 both mirror the B-D-A-F $\sharp$  motive in the main theme; the last four eighth notes of m. 6 and 7 are identical, the first seven pitches in the left hand are identical in m. 9, 10, and 11 (with one additional F $\sharp$  at the beginning of m. 11).

As one listens for the first time, it is likely that several of these things will go unnoticed. Rzewski intends for the music to be muddy with the constant repetitions, extremely soft dynamic markings, and the *una corda* and sustain pedal depressed. What the listener will hear is a swell of pitches that begins with the chromatic cluster (0123) in measure 3, expands to include all 12 pitch classes by measure 7, and trims down to become completely diatonic to E minor by measure 12. Rzewski controls the pacing so well that by the time the listener has realized what has happened, the B section has already begun.

## 2. B Section (mm. 13-23)

Rzewski's *Four Pieces* is a monothematic sonata in the purest sense of the word, with numerous references to the main theme already mentioned. Measure 13 of the 4<sup>th</sup> movement presents perhaps the most straightforward iteration of the main theme since its original statement at the beginning of the first movement. Of all of the many variations of the main theme, (all of which will be examined side by side in fig. 5.6) this variation is the most complete, and the most

similar to the original, and it will be repeated more frequently over the course of this movement than any other variation. Its arrival marks the culmination of a half hour musical event's intentions that triggers a sense of catharsis in the listener. Finally, the audience feels every emotion they have felt over the course of the sonata realized in the B section of the 4<sup>th</sup> movement.

Fig. 5.3: Roman numeral analysis of the B section (mm. 13-16)

The figure shows a musical score for the B section of the 4<sup>th</sup> movement, measures 13-16. The score is in 3/4 time, marked *mf*, and includes the instruction "no pedal, but still una corda". The analysis shows the following chords:

- Measure 13: *i*<sup>7</sup>, *ii*<sup>#4/2</sup>, *i*<sup>7</sup>, *ii*<sup>#4/2</sup>
- Measure 15: *VI*<sup>Maj6</sup>, *VII*<sup>6</sup>, *III*, *V*, *i*

Figure 5.3 above illustrates the very simple harmonic analysis of the opening four measures of the B section in the 4<sup>th</sup> movement (m. 13-16). Following these four measures, the same harmonic pattern is repeated, though slightly modified with occasionally different voicing in a lower register. The melody, paired with the descriptive articulation, makes for a catchy tune that listeners will be humming for some time after the performance. The repetitive nature of these articulations make the melody memorable, and the dancelike rhythms make the B section joyous and uplifting. The melody here (as it did in the main theme) is centered around the fifth

scale degree, starting on B and ending an octave lower on B again (for example, see m. 13 beat 1 and m. 16 beat 1). This fact makes it particularly easy to harmonize the melody in either a major or a minor mode, as will be seen in the second B section. All Rzewski must do is treat the central fifth scale degree as the third in a major key, and harmonize accordingly. Even in measure 16, this dual tonality is seen as the music initially cadences on G major, the relative major key, before a V-i in E minor.

Rzewski chooses to keep the melody in thirds throughout the entire excerpt, except for the last beat of measure 15. The left hand similarly moves in 3rds, alongside a tonic pedal tone. This is a nod to the main theme's usage of thirds, as well as the use of thirds throughout the work, and works to keep the music moving forward.

After the second statement of this melody, Rzewski begins the transition to the C section with a metric shift to 12/4 (see figure 5.4 on page 166). The pianist releases the *una corda* pedal and repeats octave E naturals, the tonal center heard previously. In a stark change, Rzewski introduces a G minor chord (second half of m. 21), what would be the minor iii of E minor. This is a reference to the 3<sup>rd</sup> movement, which used the minor iii harmony in a minor key multiple times throughout its duration. Rzewski moves back and forth between E minor and G minor a few times before a B $\flat$  minor chord is heard. Instead of continuing with a tonal analysis and calling this chord a minor  $\flat$ V, the composer is pivoting to a different form of harmony, returning to hexatonicism, shown by the pivot-chord modulation symbol in figure 5.4, measure 23. Just as one would in tonal music, think of this pivot-chord modulation as moment where the music could be interpreted tonally or atonally, and neither would be incorrect. The composer is purposefully blending the two styles. Additionally, we see Rzewski has once again used a fully

diminished 7<sup>th</sup> chord as a modulation tool, as following the B $\flat$  minor chord is C $\sharp$  minor, beginning the C section.

### 3. C Section (mm. 24-39)

Fig. 5.4: Hexatonic grouping of the transition to and beginning of the C section

The figure displays a musical score for piano, starting at measure 21. The score is in 12/4 time and marked *f* *tre corde*. It is divided into three systems of staves. The first system (measures 21-23) shows a bass line with a steady eighth-note pattern and a treble line with a similar pattern. The second system (measures 23-25) shows a transition where the bass line continues with a similar pattern, while the treble line introduces a new melodic line. The third system (measures 25-39) shows a complex texture with multiple voices in both hands. The score is annotated with hexatonic groupings, indicated by colored boxes and arrows. These groupings are labeled as Hex 3,4 (red), Hex 2,3 (blue), Hex 1,2 (green), and Hex 0,1 (purple). The annotations show how these hexatonic groups overlap and relate to each other across the measures, illustrating the harmonic structure of the transition and the beginning of the C section.

This is the rhapsodic, Brahms-like moment of the movement. Large, sweeping slurs with hands crossing evoke crashing waves rolling over one another. Once the C section begins, every pitch is accounted for by hexatonic 3,4, save the bass C# in measure 24, which is a continuation of the fully diminished seventh transition chord. But in a few circumstances the 3-note rule used previously had to be modified. It is the nature of the hexatonic collection that specific semitone pairs and specific perfect fifth pairs are unique to individual transpositions. For example, C-C# is only found in hexatonic 0,1 and C-G is only found in hexatonic 3,4. Occasionally, an issue arises in determining where the line between hexatonicism and simply a different interval lies. With semitones in particular, the use of (0123) is so prevalent in this sonata that one might hesitate to label any semitone as hexatonic. But with perfect fifths, rarely are they used entirely on their own over the course of the work, so when surrounded by hexatonicism, a lone perfect fifth may be given its own hexatonic label. Given the modified rule, a couple of moments in the left hand arpeggios can be completed hexatonically.

The uppermost melody (the tones marked by tenutos) of this section, starting in measure 24, nearly completes a tone row, but falls just one pitch short on the second beat of 28, where an E is heard for the second time, and Eb is absent. Frederic Rzewski was unlikely to use the advanced serial methods of Stockhausen, Boulez, Babbitt, and others, but one serial method can be used to account for this incomplete tone row. Frequently, serial composers would serialize subgroups of pitch classes that had previously been ordered as part of a 12-tone row. In fact, Stockhausen used tone rows of lengths shorter than 12 in his *Gesang der Jünglinge*.<sup>92</sup> If one orders the first eleven melodic pitches of the C section (beginning with the G# of m. 24),

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<sup>92</sup> Boyars, Marion. *Stockhausen on Music, Lectures and Interviews*. New York, NY: Marion Boyars Publishers, 1989.



stopping right before the repeated E, the row is {874650E12T9}. The retrograde inversion-5 of the same row completes the remainder of this melody, {43E02187965}, though the music stops on the 6<sup>th</sup> pitch, Db, in measure 30. We may never know why Rzewski chose to create an 11-note row, but we know the ordering is not random. There are 17 melody pitches in total, and grouping these pitch classes together reveals familiar prime forms.

Fig. 5.5: Prime form organization of 11-note tone row melody

Melody Pitch Group	Prime Form	Location
P8 of 11-note row {874650E12T9}		
G♯, G, E	(014)	m. 24 beat 1—m. 25 beat 2
F♯, F, C, B	(0167)	m. 24 beat 3—m. 26 beat 3
C♯, D, B♭, A	(0145)	m. 27 beat 1—m. 28 beat 1
RI5 of 11-note row {43E02187965}		
E, Eb, B	(015)	m. 28 beat 2—m. 29 beat 1
B, C, D, Db	(0123)	m. 29 beat 1—m. 30 beat 1

Each of these prime forms are immediately recognizable by this point in the sonata. The trichord (014) is a hexatonic subset, and was used repeatedly throughout the 3<sup>rd</sup> movement; (0167) is the most extended Bartókian expansion chord of the (0123) semitone cluster (see fig. 3.16); (0145) and (015) are more hexatonic subsets; and (0123) is the aforementioned semitone cluster. While it has not been observed that Rzewski will use a tone row extensively throughout an entire work, he has shown his capability in using thoughtful rows many times.

The phrase starting in measure 30 is harmonized with semitone cluster sets, with (014), and with a handful of Bartókian expansion chords. The aleatoric units (A, B, C, D), measure 34-37, if read from left to right show an increasing semitone cluster. Unit A saves the Db for the very last moment, effectively making the unit A (012) set, waiting for the (3) until the final beat. A similar idea carries through the other units—D♯ is added on the last beat of unit B, and a new

semitone is added in unit D, making the entire measure (012378). But what is truly amazing about this portion of music is not harmony, but articulation.

As measure 30 begins, the texture continues the Brahms-like slurs and waves as before, but the harmony changes almost immediately. Over the course of one measure, the texture changes gradually from slurred pitches to individually articulated pitches marked with a lone legato symbol. At the conclusion of measure 30, a shrill  $D^b$ - $D^\sharp$  semitone is struck in a register much higher than the rest of this bar—because of this register change, the sharp articulation change is not so shocking. The texture is gradually changing from the long, arching Brahms-like slurs, and by measure 32 the music is much more reminiscent of Webern-like pointillism. This is what makes the 4<sup>th</sup> piece such a joy for the performer, there is so much story to tell through just articulation. At the conclusion of the C section, the texture regains slur markings as well as staccato articulations (m. 38), as the harmony maintains its hexatonicism and semitone clusters, the two main forms of harmony in the C section. A brief amalgamation of the section crashes down to the lowest  $B^b$  on the keyboard, where the (012) bass ostinato begins the B' section.

#### 4. B' Section (mm. 40-62) and Comparison of Main Theme References

After the tumultuous C section, Rzewski relaxes the music with a constant bass ostinato at the bottom of the keyboard and a simple return of the main theme, set in  $B^b$  minor. The melody here is derived directly from the main theme, not from the melody from the first B section, though of course both are similar.<sup>93</sup> See figure 5.6 for a side-by-side comparison of all of the main theme iterations across the sonata.

<sup>93</sup> There is a typo in the score, measure 40; the right hand is given only a whole note, when the time signature is 12/8; there should be a dotted whole note in its place.

Fig. 5.6: Main theme references comparison

Main Theme



1st Piece, m. 14



1st Piece, m. 39



2nd Piece, m. 64



2nd Piece, m. 240



3rd Piece, m. 56



4th Piece, m. 13



4th Piece, m. 40



This is not an exhaustive list of every reference to the main theme of the work, as such a list would be endless in length. This is a collection of prominent melodies based on the main theme that return multiple times over the course of their respective movement, with the

exception of the very last melody as it is a direct quotation of the main theme. Each of these are memorable melodies from their movement, and the natural progression of each is remarkable. The first reference, from m. 14 in the 1<sup>st</sup> piece, is very similar to the main theme, sharing a great deal of pitch content. Through looking at the first reference, obvious connections are made to the next reference, which starts in m. 39 of the 1<sup>st</sup> piece. The second reference from the first movement shares the same contour and general melodic direction, but now utilizes many different hexatonic transpositions (see figure 2.18). Beginning in m. 64 of the 2<sup>nd</sup> piece, the next reference is by far the most abstract. This is what was referred to as the “main theme transposed to hexatonic 0,1.” (see fig. 3.17). By the end of the 2<sup>nd</sup> movement, something much more familiar has arrived, though the unpredictable rhythm and the harmony that accompanies it obscures this melody. The melody beginning in m. 56 of the 3<sup>rd</sup> is more direct, but it immediately becomes lost in the impossibly dense fugue that followed it. It is not until the 4<sup>th</sup> piece, beginning in m. 13, that the listener can recognize and retain the memory of the original main theme. And again in m. 40, a direct quotation allows the listener to look back on both the original main theme and also the melody heard in the first B section of the 4<sup>th</sup> movement. Rzewski is able to accomplish this “decrement of complexity” in many ways, the simplification of the main theme over time being one of them.

Alongside countless other skills, Frederic Rzewski’s ability to develop a theme is perhaps his single greatest compositional strength. There is a reason *The People United* has received as much praise as it has—anybody can be given the Chilean protest tune and be able to hear its influence in every moment of the hour long set of variations. Rzewski is among a generation of post-modern composers in that his music does not require years of studying the western canon to understand the content that he wishes to convey. This organic continuity of thematic material

carried through extensive and large works of music is no less impressive than the same ability in Bach's, Beethoven's, Brahms', or Schoenberg's music.

Once the B $\flat$  minor main theme has concluded (m. 46), the lowest B $\flat$  is left to be struck repetitively at triple piano with the soft pedal. Here is the A section "fake-out," as one might assume that the opening figure were returning if they were looking at the score. Instead, these chords are nothing but open fifths, with no change in dynamic, therefore the listener does not feel as if the A section has returned. The use of perfect fifths carries its own self-explanatory connotations, but beyond harmony this is simply a sonic tool used to clear the air and bring the pianist's hands from the bottom extreme of the keyboard to the top. Once the pianist has made it there, and the highest B $\flat$  remains, the left hand brings back the melody as it was heard in measure 13, though this time transposed to B $\flat$  major, exhibiting the modal versatility of the melody. In measure 51, the music modulates straight to D major, brightening the atmosphere, especially at such a vibrant register in the piano. This shift is of course a move by chromatic mediant, but it is also a hexatonic modulation—the B $\flat$  major and D major triads both fit in hexatonic 1,2, a collection that will show itself many more times in this section. Even further, the music modulates once again by relative minor (m. 54) to B minor. These three tonal centers, B $\flat$ -D-B $\natural$ , form (014) and are set in hexatonic 2,3 the other hexatonic collection that will show itself significantly in the following section.

Fig. 5.7: Tonal and hexatonic analysis of page 36

The figure displays a musical score for page 36, annotated with tonal and hexatonic analysis. The score is organized into systems corresponding to measures 51-54, 55-56, 57-59, and 60.

- System 1 (m. 51-54):** Features a piano part with a *pp* dynamic. Chord symbols below the staff are I, I, and  $i^{7(\text{no5})}$ .
- System 2 (m. 55-56):** Includes a piano part with a *p* dynamic and a bass part with a *p* dynamic. Chord symbols below the staff are  $IV^{Maj7}$ ,  $V$ , I, and  $Bm: iv$ . Hexatonic boxes (Hex 1,2 and Hex 2,3) are drawn around specific chords and intervals. A *PT* (pedal point) is marked in the bass line.
- System 3 (m. 57-59):** Features a piano part with a *mp* dynamic and a bass part with a *mf* dynamic. Chord symbols below the staff are  $i$ ,  $VI^{Maj7}$ ,  $i^7$ , III,  $V$ , VI, III,  $III^+$ ,  $V$ ,  $i$ , and  $VI^{Maj7}$ . Performance instructions include *tre corde*, *Ped.*, and *gradually release pedal*. Hexatonic boxes and *PT* markings are present.
- System 4 (m. 60):** Features a bass part with a *ff* dynamic and a piano part with a *fff* dynamic. Chord symbols below the staff are  $V$  and  $V$ . Hexatonic boxes (Hex 3,4 and Hex 0,1) are drawn around the chords. The instruction *pesante* is written above the piano staff.

Figure 5.7 above is one of the most exemplary examples of Rzewski's masterful blend of tonal and atonal sound worlds. Much like figure 5.4, it is best to think of the shift from tonality to atonality as a blend, something that happens overtime, unlike the sudden modulation to D major in measure 51. The first two systems of score in figure 5.7 fit plainly in D major, modulating to the relative minor by the end of the second system. In the third system, Rzewski stops notating each attack, and instead uses a tremolo symbol, much like the tremolo at the bottom of page 35. These tremolos have the same effect as the gong-like chords from the A section, though those could not be marked with such a symbol as the pianist is allowed to repeat a given chord any number of times; here it is metric and specific. Even still, a wonderful parallel is drawn between measures 55-59 and the gong-like section from the A section—the pianist is travelling down the keyboard in rapid attacks, like a waterfall cascading down a mountainside.

The third system is still reasonable in traditional tonal harmony, but the hexatonicism begins to take hold here as well.<sup>94</sup> The choice of using only hexatonic 1,2 and hexatonic 2,3 is not coincidental—hexatonic 2,3 contains a B minor triad, a G major triad, and hexatonic 1,2 contains D major and F# major. These four chords are essentially all that are used in the main theme iteration from measure 13 (i, VI, III, and V), and likewise they are the most important triads in the B' section. These two hexatonic transpositions have three common tones with each other, meaning that there is a great deal of overlap that is not shown in figure 5.7.

By the fourth system, tonal harmony has more or less broken apart and is no longer useful. Tonic chords with added major sevenths, an abundance of augmented chords, and other non-functional harmonies make roman numeral analysis futile. But the hexatonic analysis lives

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<sup>94</sup> It should be noted that the "3-note rule," even with its perfect fifth caveat, has been broken in this system. This is accounted for by the fact that tonal harmony is still present here—once tonality falls apart in the 4<sup>th</sup> system, the 3-note rule returns.

on. Even to the very end of measure 59, hexatonicism has not superseded every thing about the melody, though. There are four instances of atonal non-harmonic tones (see page 80 for discussion of atonal non-harmonic tones), all of which are passing tones making the exact same motion—F♯-E-D, with E being the passing tone. Each of these are marked in figure 5.7 with a red “PT” symbol. This passing tone was present in the melody from the first B section, and it would be unfaithful to the melody there and the main theme to remove it here in the B’ section.

Many sections of the 4<sup>th</sup> movement could be analyzed tonally and hexatonically, such as the first B section, and the beginning of the B’ section, but they have not been. The hexatonic collection is a simple pitch class set, and just as one *could* analyze Mozart with the (037) pitch class set, such an analysis should not be made because it is not how the listener hears the music, and it is certainly not how Mozart heard the music. When presented with tonal music, even the most 20<sup>th</sup> century-savvy listener will hear the music as tonal, and it is a disservice to the music to analyze it differently. If the music sounds tonal, it is almost guaranteed to be so.

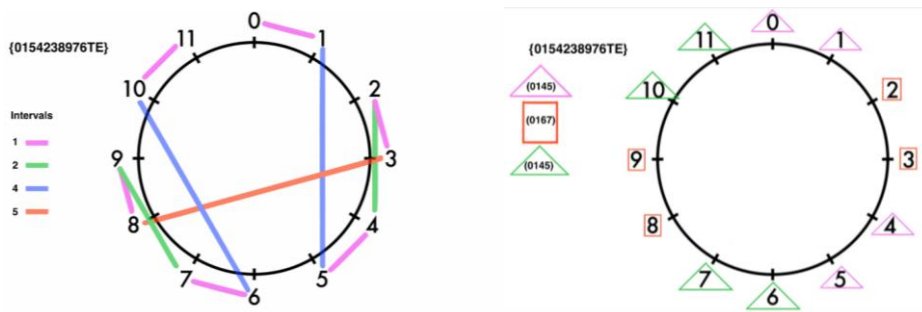
The fifth system of the page is the most violent excerpt from the entire movement, despite it being the only excerpt in which silence is used. This is the moment that causes the audience to gasp and hold onto their seat, unsure of what will come next. The pianist pounds away at the lowest B on the keyboard, interrupting with a staccato and accented B-C attack. The incessant B is a reminder of the sonata’s overall tonality in B minor. In figure 5.7, this semitone has been given the hexatonic 3,4 label, though this would violate the 3-note rule. It is just as easily understood that these semitones are a subset of the (0123) set used throughout the sonata. But given the clearly hexatonic 0,1 chords in measure 62, and the fact that neither hexatonic 0,1 nor hexatonic 3,4 had been used at all in the B’ section, it is possible that Rzewski wanted to pull away from the hexatonic 1,2 and 2,3 hegemony and use hexatonic 3,4.



### 5. Transition and A' Section (mm. 63-67)

The transition into the final A' section lasts three bars, measure 63-65, and resembles low, rolling thunder sounding from miles away. The music is set in constant triplets, and there are six distinct voices moving around between each other. These voices are all serial, and unlike the C section, Rzewski uses and finishes a complete 12-tone row. These voices move in and out of one another, but stay consistent in their beat placement. The row used at P0 is {0154238976TE}, a tone row very indicative of harmony used throughout the sonata.

Fig. 5.8: Pitch class clock analysis of tone row



The row that Rzewski chose is symmetrical. The pitch class clock on the right shows the order of pitch classes as they traverse around the clockface, with different colors representing different intervals. The pitch class clock on the right shows the row broken up into three different tetrachords—(0145), (0167), and (0145) again. Both tetrachords are Bartókian expansion chords, though (0145) is also hexatonic. These are shown in the diagram by triangles for (0145), with different colors for each individual set, and rectangles for (0167). Notice that the orange squares, showing the (0167) set, split the clockface in half, with one half of each (0145) set on both sides. Because of the constant Bartókian expansion chords, the melodies here are reminiscent of the C-section in the 2<sup>nd</sup> piece (mm. 143-152 of the second piece).

Fig. 5.9: Serial voices from measures 63-65, chart showing beat orgnaiztion



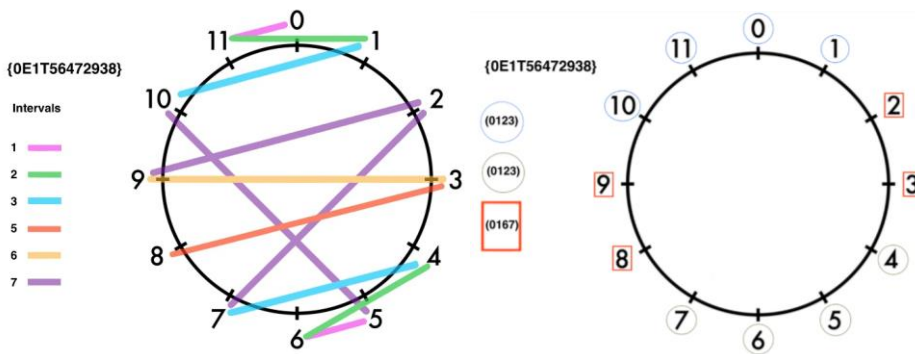
Staff Number	Beat Designation within the Triplet
#1	Third beat of triplet
#2	Second beat of triplet
#3	Second beat of triplet
#4	Every odd triplet, first beat
#5	Every odd triplet, first beat
#6	Every even triplet, first beat

Figure 5.9 shows the six voice counterpoint that occurs in m. 63-65. Rhythm has been removed, though the pitches do still fall generally where they would on the score. The first staff is not necessarily the “top” voice throughout this section, but it starts off as such, and likewise for the other staves. More accurately, these voices are organized by where they fall in each triplet. The iteration of the row that each voice plays is given above the staff where the row starts—notice that the top three staves are given two iterations each, as they move rhythmically twice as fast as bottom three. The second and third staff move together in parallel fifths, as do the fourth and fifth, another idea indicative of the C section from the 2<sup>nd</sup> piece. The first staff is at

times the highest pitch played, and at other times the lowest, meaning it travels between the two hands. The “top” three voices are far more straightforward than the “bottom” three.

The bottom three voices move half as fast as the top three—that is, they only move through one row in the time it took the other voices to cover two. Looking at the score, one could easily get lost attempting to discern between the fifth and sixth staff, as together they occur on the first beat of every triplet. Additionally, the bottom two voices are in retrograde with each other, meeting in the middle of the second measure on the pitch G. In essence, the downbeat of every triplet is playing against its own retrograde (excluding the voice in the fourth staff). If one were to take the first and lowest pitch of each triplet as its own individual row, it would form a new row, {0E1T56472398}, which naturally takes the first six pitch classes of the original row, {015429}, and places it right on top of the last six pitch classes of the original row in retrograde, {8376TE}. If one takes the downbeat of each triplet as its own row, the pitch class clocks of the new row are as fascinating as the original row.

Fig. 5.10: Tone row of the first and lowest pitch of each triplet



This row is far more complex than the original, but it is still symmetric. In the diagram on the left, notice that the row starts with a (0123) set that is built by increasingly large intervals—0

to 11, 11 to 1, and 1 to 10. The row then jumps a perfect fifth just to start the (0123) process again, followed again by a perfect fifth. Then, the intervals shrink, perfect fifth, tritone, perfect fourth, and then the row is complete, but if it were to continue cyclically it would shrink once more to a major third (8 to 0), where the process would begin again.

The diagram on the right shows the internal tetrachords from the row; (0123), (0123), and (0167), with blue and green circles representing the (0123) sets and orange rectangles again showing the (0167) set. These are again all Bartókian expansion sets. The (0167) set contains the exact same pitch classes that it did in the original row's graph (fig. 5.8). Recall that in the original row, this same (0167) set, literally the pitch classes [2,3,8,9], split the clockface down the middle so that the (0145) sets were evenly distributed on either side. Here, the (0123) sets are together, and they mirror each other, reflected across the clockface. Of course, much of this is just a mathematical coincidence given the already symmetric original row, but the fact that the (0123) set, arguably as important as the (0145) hexatonic subset, has made an appearance in this new row, one begins to wonder why Rzewski chose to have the first pitch of every triplet play at the same time as its own inversion, instead of simply choosing another row from the same original row as he did in the "upper" three voices.

What is truly amazing about these bars is the fact they are quite complex serially, yet fit so simply under the hands of the pianist. The six voices move in and out of each other, across hands, changing rows and spanning half of the keyboard, yet once one sits down to learn the notes and work out fingerings, the music puts itself together without a great deal of pianistic effort. Just as playing a fugue of Bach can at first seem impossible, once one studies the organization of the music, fingerings and hand movements become obvious to the player, and it becomes evident that the composer planned the pitch classes out in such a way that they would

be rewarding to play. This is a testament to Frederic Rzewski's unmatched ability to write for his own instrument; truly a master of the art.

The serial lines end crashing on the lowest B $\natural$  once again (m. 66), and with the A' section begins one final climb to the mountaintop. The chords here are once again included in the index, though the harmonies are very similar to the opening A section. If anything, there are more instances of recognizable harmony here than previous—there are more hexatonic subsets, a reference to the first movement, more Bartókian expansion chords, and so on. The last six stemmed chords fill out hexatonic 3,4 completely, with one pitch leaving each time the pianist decides to progress to the next chord. This leaves the pianist with just the highest B $\natural$ , being struck at triple forte, until the A $\sharp$ 7 eventually takes over.

Each movement has had a philosophically intriguing conclusion. The first movement ended with instructions to “cut off abruptly.” The second movement had a definitive ending, but then carried on with a comical afterthought in the same breath. The third movement ended with a relaxed, fully hexatonic chord, but the absence of the expected A' section left the listener uneasy. And finally in the fourth piece, Rzewski says outright that “the final notes should have the character...of something unfinished.” Such quaint endings could easily be ascribed a meaning if the composer had given any sort of background to the piece, or even to the origins of the main theme. The piece written just before *Four Pieces, The People United*, is also monothematic, but with its very clear political intentions the listener is left satisfied at all moments in the work. The pieces written just after, *North American Ballads*, are also all based on melodies that Rzewski did not write, and each piece is given a depictive title. This is a mystery only answered by the composer himself, but as David Brooks theorized, Frederic Rzewski likely does know the answer, but he will never share it with you.

## Chapter VI

### Conclusions

Few American composers are as important to the late 20<sup>th</sup> century as Frederic Rzewski, and while his compositional prowess is not unknown, the depth and richness of his musicality has been and remains to be largely undiscovered. This thesis is among the first of its kind in that it explores the music of Rzewski in a thorough and comprehensive analytical manner. *Four Pieces for Piano* is an extensive, monumental, and virtuosic work, but it is not the only piece of its kind in Frederic Rzewski's oeuvre. There remain many other pieces of equal compositional, pianistic, and theoretical value, such as *Mayn Yingele*, *Hard Cuts*, eight books of *Nano Sonatas*, *Piano Concerto*, *The Road*, *Sonata for Solo Piano*, twenty five *Fougues*, and dozens more, all of which are seldom performed, much less analyzed. Additionally, there does not yet exist a complete analysis of works like *The People United Will Never Be Defeated!* or *North American Ballads*, which do find their way into the concert hall. On top of this, Rzewski wrote a great deal of chamber, orchestral, and instrumental works. It is my most sincere hope that this thesis is the beginning of more analyses of Rzewski's works, and that through this research other theorists, pianists, and listeners find their way to Rzewski's music.

All of that being said, the study of *Four Pieces* is worthwhile on its own, proving itself to be a great work of an important late-20<sup>th</sup> century American composer. As commonly seen in Rzewski's music, the work is a monothematic-sonata in the purest sense, meaning every aspect of the work is based on the short main theme played before the first piece (see fig. 1.1). This main theme contains several recognizable features that will pervade each page of score for the duration of the thirty-minute sonata, including the establishment of B minor as a tonal center, ascending minor thirds, melodic semitones, structural perfect fifths, and a lack of closure

**Commented [ME6]:** Maybe make a list of works with dates in an appendix, maybe just piano works

signaled by the use of a minor dominant chord at the cadence. These are the characteristics that will shape the sonata on a macro sense—for example, the work is not necessarily full of parallel thirds, as that is a small, face-value facet of the main theme (though there are many instances of this texture). Instead, the work is based heavily on semitones and thirds through the use of the hexatonic scale, or entire sections are based on perfect fifths (such as the C section of the 2<sup>nd</sup> piece), and each piece features an unsettling or outright unfinished ending.

This music is no small accomplishment for the pianist, and the pieces are not necessarily easy listening. They are rewarding for those who listen intently from the beginning, but even still Rzewski sets up the music well enough that the music will reveal itself over the course of the sonata. This paper has used the term “decremento of complexity,” meaning the first movement is the most dense, and each subsequent movement is simpler than the last. This is all taken in context of course, as none of these pieces are necessarily simple—indeed, each is a monumental challenge. This “decremento of complexity” applies to more than the movements as a whole, but also the development of the main theme throughout the sonata, as it will be consistently referenced in increasingly direct methods (see fig. 5.6).

Integral to the understanding of this work is Rzewski’s use of the hexatonic collection. The prime form of this hexachord is (014589), and subsets of this set will be used repetitively throughout the sonata, namely (014), (0145), and (0347), the split third chord. The hexatonic collection contains no major seconds and no tritones, a fact that Rzewski will use to his advantage as these two intervals will be used throughout the work at points of change or points of connection. There are four transpositions of the hexatonic collection; transposing up or down by a semitone will yield a transposition sharing three common tones, and transposing by a major second will share zero common tones. Rzewski will frequently use the latter transposition, as this

will provide all 12 pitch classes, allowing for more pitch content. There are a large number of triads contained within the hexatonic scale, namely major and minor triads with seventh and ninth extensions. See chapter 1 section 2 (page 23) for a full discussion of the hexatonic collection.

Perhaps equally as important as the hexatonic collection within the work is Rzewski's use of the (0123) semitone cluster. This set is used extensively throughout every movement, but more important are the sets built from the semitone cluster. Using Bartók's method of expanding a pitch class set, Rzewski splits the tetrachord into two semitone pairs, (01 | 23), and moves the second dyad up to form other sets. These sets, (0123), (0134), (0145), (0156), and (0167), have been referred to as the Bartókian expansion sets and are used many times throughout the movements (see fig. 3.16). If one were to think of the hexatonic scale in a similar way, its companions would be the octatonic scale and the chromatic scale; the hexatonic scale is a group of three semitone pairs displaced by a major third, the octatonic scale is four semitones separated by a minor third, and the chromatic scale is six semitones with a major second's distance (see page 129). Especially given that the hexatonic subset (0145) is one of the Bartókian expansion sets, the connection between the hexatonic collection and the (0123) semitone cluster is not so far removed.

After the main theme of the sonata, the first piece begins. This is the most complex, most violent, and most turbulent of all of the four pieces. In fact, this movement stands out amongst Rzewski's compositional output as being exceptionally difficult—few moments of even the famously difficult *The People United* are as difficult as the first movement of *Four Pieces*. This piece is unique in the sonata in that it is set in a binary form, ABA'B'—the other three movements are all in arch forms. The A sections both feature the wedge motif (see fig. 2.3) at



their onset. The music for the majority of these sections is completely unmeasured, featuring both single-stemmed pitches across both hands, as well as carefully stemmed multiple voice counterpoint. The A sections are also marked by the most complicated hexatonic organizations heard in the entire sonata. Three is the smallest number of pitch classes needed to determine a specific hexatonic transposition, and this allows for every pitch in the two A sections to be defined by hexatonicism (see fig. 2.9). In music as complex as the first movement, it is customary today that an instruction be given, saying, “accidentals apply only to the notes which they immediately precede.” However, no such instruction is given in the score. This begs the question, was this an oversight by the publisher, or was the practice of including these instructions not commonplace in 1982 when this score was published? There is no definitive answer, but it does begin the questioning of other aspects of the score, and indeed there are a good number of typos and inaccuracies; those of which that have been found are listed in appendix A.

The B sections are marked by a reference of the main theme, the usage of 4/4 time, and the use of a new pitch class set, (013478). This set will reappear in each movement, though it will be used differently in each piece. At first glance, it appears to be completely unrelated to the hexatonic collection, but moving any pitch just one major second in the hexatonic set (014589) would yield (013478) (see fig. 2.11 on page 37). In the first movement, this set is spelled as two minor triads (one atop the other), with roots a semitone apart (for example, F minor and F♯ minor). In the first B section, Rzewski uses rolling (013478) arpeggios moving in slow masses, and when separating these chords into individual voices, it is shown in figure 2.13 that Rzewski is using linear hexatonicism to accomplish this.

In the A' section, Rzewski uses the first 12-tone row seen in *Four Pieces*, though it will not return in the first piece, nor any other movements. Rzewski was not an avid serialist like several of his teachers were, though he did not shy away from using a tone row in moments of transition or as a texture device. Rzewski displays careful attention to the construction of his 12-tone rows. In this particular row, the row is symmetrical and appropriate of the growing and later shrinking texture seen in this passage (see fig. 2.14). Following the serial passage, the A' section returns to hexatonicism, which ushers in the arrival of the B' section, the final section in this movement. Recalling the previous B section, a return is made to a reference of the main theme, 4/4 time, and the usage of the (013478) set. Rzewski interrupts the main theme reference to introduce Messiaen-like chords which “cut off abruptly” ending the first piece.

The second piece is an energetic, fast, and humorous scherzo. It is the first movement to be set in an arch form, and the last two pieces will follow the ABCB'A' format, with a few variations. This is the piece that was compared to Beethoven scherzo's, namely the scherzo from the 18<sup>th</sup> piano sonata, “The Hunt” (see 50). The humor, energy, and phrase structure in Rzewski's scherzo matches Beethoven's in a convincing manner, and as Emanuele Arciuli has confirmed through his friendship with Frederic Rzewski, the composer loved Beethoven.

The A section has no shortage of musical content, maintaining the “decrescendo of complexity,” as we are still early in the grand scheme of the sonata. This section is marked by “light and bouncy” hexatonic arpeggios and “reflective” semitone clusters (see fig. 3.5). Throughout not only the A sections, but the entire movement, Rzewski prefers to spell these hexatonic arpeggios in triads, and voice the majority of the hexatonic passages in triadic fashion. At the same time, this movement is unique among the sonata in that it consistently uses the entire hexatonic collection before moving on—meaning there is no need for the 3-note rule in this

movement. The A section also contains the most extended serial passages of the entire sonata, and also features the only row to return in a section later than the section it was introduced in. This row was also constructed carefully, as it contains several recognizable trichords and tetrachords within its composition. In mm. 47-52, the first instance of Rzewski's masterful ability to blend atonality and tonality is seen. A curious melody, a frantic bassline, and dense clusters all thin out to reveal a short passage set entirely in B minor, the overall key of the sonata (see page 6).

The B section begins with the same curious melody seen in the atonal-tonal transition mentioned just above. An analysis of this melody reveals its origin, as the main theme is now transformed to be completely hexatonic in content. It features similar contour, melodic gesture, and is used to approach a tonal reference of main theme in a few places. Later on, the B section uses a wayward bassline moving in an alternating perfect fifth-semitone pattern. This exact same pattern was used in *The People United*, and it is compared to a similar aesthetic in a track of Herbie Hancock's (see page 56). In his free time, Rzewski enjoyed jazz and would always allow its influence into his own music. Whether or not this connection was present on the mind of the composer, it can be helpful to the listener to relate this music to another musician of the time, even if the two are using different musical languages. The B section is the first time Rzewski has crafted large portions of music within one hexatonic transposition—for example, both hands might use only one hexatonic transposition for multiple measures at a time, whereas in the first movement one individual hand could use all four transpositions within the span of just a few beats. When compared to the hexatonic arrangement of the first movement, one can already see the “decrecendo of complexity” taking place (see fig. 3.18).

The center C section is the most turbulent of the movement, moving in waves of perfect fifths and linear hexatonicism. The section is split into three subsections, each of which use a phrase pattern of four bars of 2/2 followed by one bar of 5/4, where the five beat bar will always disrupt the pattern set up by the previous two-beat bars, but simultaneously prepare the upcoming phrase. This sort of rhythmic phrase energy is not uncommon of Rzewski's music, though in this particular sonata it stands out. The first movement is largely unmeasured or in simple common time, the third movement is the slowest of the four and moves accordingly, so neither has the rhythmic energy contained in the second piece. The fourth movement is rhythmically active, but it features constant eighth notes that blur the phrase and rhythmic structure. The first two subsections of the second piece's C section are built primarily from fifths. In the C-b subsection, Rzewski uses a succession of perfect fifths contained within a linear hexatonic transposition, and then changes collections by movement of a major second, one of the intervals not contained in the hexatonic scale. By doing this multiple times, the overall movement of the phrase spells out a diminished chord, starting a pattern of Rzewski using "hidden" diminished chords at moments of transitional importance. The third subsection, C-c, is one of the only places in the sonata built almost entirely off of the Bartókian expansion sets. This final subsection is also one of the most difficult moments in the sonata for the pianist, featuring perhaps the most difficult passagework.

In the arch form turnaround, familiar content returns. The previous C-c subsection leads the music straight to the climax, right at the beginning of the B' section, where the perfect fifth-semitone bassline returns. After a few phrases, the music deescalates and a harmony from the first movement are heard—the (013478) set, used here to harmonize the same curious hexatonic melody from the first B section. The final A' section produces a near perfect inversion of the

opening A section with a return of the hexatonic arpeggios, semitone clusters, and serialism. Recalling mm. 47-52, this section features another atonal-tonal blend with an extended section in B minor. With a reference of the main theme, it seems as if the music might cadence definitively. It almost does, but suddenly, within the same breath as the cadence on B, Rzewski returns immediately to the hexatonic arpeggios and semitone clusters, almost as if he is mocking the idea of a cadence. This sudden turn provides a humorous ending to a humorous piece, but more importantly it exemplifies Rzewski's dedication to denying closure, first seen in the main theme, and repeated with the "cut off abruptly" at the end of the first movement.

The third piece is the slowest, the longest, and is said by Arciuli to include the hardest passage of the entire sonata. It is set in an arch form, though it does have the most complicated form of any of the pieces (see fig. 4.1). It begins with an introduction, then carries on with the typical arch ABCB'A' form, though the final A' section never occurs.

The introduction begins with stark octaves moving across various different registers and constantly changing time signatures, but employing one cohesive melodic line. This single voice melody is extracted in figure 4.5, and its hexatonic organization is apparent here, as well as the importance of the (014) trichord to the movement as a whole. Though the entire introduction melody returns in a number of places, a portion of this melody (called the introduction motif) permeates the entire movement. The introduction features several grace notes, and careful analysis suggests that Rzewski did indeed construct this using the hexatonic collection—otherwise he would not have spelled some intervals in the odd way he did (see page 113). Lastly, Rzewski's use of mixed meter signatures provide stressed downbeats that would have been absent had the music been set simply in free time. These downbeats create composed-out

hexatonic sets (see fig. 4.6), demonstrating Rzewski's organizational plan for large sections of his music, based upon what is to come and what has already occurred.

The A section begins with a march-like accompaniment consisting of a short-long-short-short-long rhythmic pattern, harmonized with the (01568) set. This set is a subset of the (013478) set that has been used in each movement thus far. The full (013478) set appears in measure 27, here spelled as an extended B $\flat$  minor harmony; this measure also features a passing tone that, if removed, reveals the set to be hexatonic 1,2 (see page 118). This specific hexatonic transposition is important to the 3<sup>rd</sup> piece as a whole, as it often begins and ends sections or cadences, including even the last chord of the movement. In the transition from the A section to the B section, a scale identified as the Slominsky-14 scale is played repetitively. The spelling and beat placement of this scale leads the ear to hear a hidden fully-diminished seventh chord, continuing Rzewski's pattern of using such a harmony at transitional moments (see page 117).

The B sections in the 3<sup>rd</sup> movement are separated into two subsections, labeled B<sup>1</sup> and B<sup>2</sup>. These two sections are primarily tonal, the longest stretches of tonal music in the entire sonata, and their separation is mainly that of a modulation. The B<sup>1</sup> section is set in E $\flat$  dorian, and is marked by internal repeats; in a given two-bar group, Rzewski will repeat the first bar, and then repeat the entire two-bar group after the second bar, creating an X-X-Y formula. This is paralleled by the melody in this section, in which the main theme's ascending minor thirds return. For example, the melody in the B<sup>1</sup> section is E $\flat$ -E $\flat$ -G $\flat$ , which also follows the X-X-Y formula. Within both B subsections, an entirely unfamiliar harmony is heard—the minor mediant chord (iii). This chord will become a familiar sonority for the listener, and will return many times in the rest of the movement.

Renowned as a pianist/composer, Rzewski takes his place among a lineage of great musicians with the same title. Beethoven, Chopin, Liszt, Rachmaninoff, and many others have all had their influence on Rzewski, and frequently Rzewski will emulate or outright quote one of these composers, such as a direct quotation of Rachmaninoff in “Winnsboro Cotton Mill Blues” (see fig. 4.4). However, characteristic of Rzewski’s style is to recast a passage or idea from another in a post-modern fashion, and Rzewski is not the only late-20<sup>th</sup> century composer to do so.

The transition between the B<sup>1</sup> and B<sup>2</sup> sections is a quasi-cadenza, marked by a restatement of the introduction, transposed up a fourth. The right hand plays a languid melody while the left hand holds pitches eventually taken over by the middle pedal. Given Rzewski’s specific notation in this passage, it is evident that he intended for certain sounds to be heard resonating on the strings held by the middle pedal. By extracting the harmonics of the pitches held, an Em7 chord will be sustained by the middle pedal, preparing the upcoming B<sup>2</sup> section, which is in A minor (see fig. 4.8 and 4.9). Though Rzewski has harmonized the main theme with minor dominant chords, this harmonic Em7 chord is not necessarily heard as a dominant push to the new key area, but rather as something that the audience did not even realize they were hearing until it was already gone.

The B<sup>2</sup> section has one of the most overt references of the main theme heard in the entire sonata. Beginning timidly, this music grows to be triumphant, resounding the strong main theme. The harmony here is simple, though it does employ the use of the minor iii chord again. However, just when one believes this music will carry the listener to satisfaction, Rzewski brings back the wedge motif from the first movement and instructs the pianist to “cut off abruptly,” just as was done at the end of the 1<sup>st</sup> piece. This sets up the C section, the climax of the entire sonata.

Harmonized by a (0167) left hand ostinato, the C section begins with the introduction melody played in its near totality. The introduction motif is played once again in stark octaves in the lowest register of the piano, growing to a triple forte, and preparing what Arciuli calls the single most difficult passage of the sonata. This is the fugal section of the 3<sup>rd</sup> piece, and while it is not a traditional fugue in the sense that it has a subject and answer, it is clear four voice counterpoint with each voice carrying the same melodic content of the (014) set. As each voice is extracted and analyzed hexatonically in figure 4.14, it becomes apparent that Rzewski is prioritizing linear hexatonicism over vertical sonorities. This music is far too complex for anybody to comprehend a vertical sonority as it moves along—one must instead choose one voice to listen to and allow that voice to carry their ear through to the end of the section. This is one of the only passages of the sonata that is decidedly “atonal.” Another term is offered for the purpose of describing atonal music with tonal connections; “post-atonal.” The music of Schoenberg, Boulez, Babbitt, and others are all undoubtedly atonal, but can the same be said for the music of Rzewski when the entire sonata is based on a tonal main theme, or when tonal triads are used to harmonize entire movements, or when so much of the sonata is centered around B minor? See page 139 for more discussion on this topic.

As the arch form turns around the corner, the B<sup>1'</sup> section begins in a similar manner to the B<sup>1</sup> section, set now in B $\flat$  minor with the same X-X-Y internal repeats and melody. Both of the B' subsections are far shorter than their earlier counterparts, but Rzewski is able to remind the listener well of what was heard before the impossibly dense fugue of the C section. The (01568) march-accompaniment set returns, as well as the minor iii chord. The B<sup>2'</sup> section uses the same main theme reference, now transposed to B $\flat$  minor and harmonized by beautiful multiple voice hexatonic counterpoint (see fig. 4.15). Rzewski prepares the listener for a return



of the A' section by using the Slominsky-14 scale again, though instead of returning to the march-like accompaniment, a (013478) chord is pounded out 36 times, decreasing in volume and clarity all the while. After a pause, a split third (0347) chord is played, contained within hexatonic 1,2. One might think that ending the movement on a low, confident chord held out for multiple measures would be a satisfactory ending, but with the absence of the A' section, the listener is left feeling uneasy, uncertain of whether or not the piece is actually over, and wondering why so many of their questions are left unanswered. Just as these thoughts form in the audience's mind, the 4<sup>th</sup> and final movement begins.

The fourth piece is the culmination of the “decrecendo of complexity,” meaning that by this point in the sonata, the listener is aptly prepared to hear the content contained within, and Rzewski will provide a good amount of satisfaction for those who listen. This is part of the reason that the 4<sup>th</sup> piece is by far the most famous of the entire set, even being played on its own by the composer himself. This piece is rapid, featuring constant eighth notes perpetually moving for the entire movement, with only one place of rest for the pianist. It is again set in an ABCB'A' arch form.

The A section begins with what Rzewski describes as “exciting/stroking a large gong.” The pianist is instructed to play each chord any number of times while keeping a constant pulse of roughly six attacks per second. The pianist must perform constant finger substitutions as they traverse from the highest B<sup>♯</sup> on the piano to the lowest B<sup>b</sup>. Following this, the music is “cloudy and indistinct” as more and more pitches are added to the constant eighth note pulse. These pitches grow to passages containing all 12 tones, but then thins out to just the seven diatonic notes of the E minor scale. Right as the listener realizes what has happened, Rzewski throws them into the B section.

This is the moment of catharsis that Rzewski has been teasing for the last half hour. The B section has the single most overt reference of the main theme in the entire sonata, and is harmonized with simple harmony in E minor, set in an upbeat and exciting rhythm. Audience members will find themselves humming this melody for some time after the performance. And while every other reference of the main theme so far has been cut short, or featured a strange turn of harmony, or otherwise did not allow the listener to feel satisfied, Rzewski allows the B section to be as satisfactory as the listener desires. Dr. David Brooks, who plays this piece often, says that no matter the musical taste or experience of the audience he plays this for, “they all love the fourth piece.”

The B section is so satisfactory that even the upcoming C section, which features some of the most violent music in the entire sonata, will not be offensive to those who yearn for their ears to be soothed. The transition into the C section features a reference to the minor iii chord from the third movement, but also uses a final hidden diminished seventh chord, finishing Rzewski’s tendency to use diminished harmonies at points of transition.

The C section begins with large flowing slurs reminiscent of a Brahms rhapsody. The music here is harmonized in triads, though without a key center. This music is all organized hexatonically (see fig. 5.4), though there is much more to this section. In fact, Rzewski takes a technique characteristic of Stockhausen by serializing a row of pitch classes smaller than 12, and uses an 11-note row in the beginning of the C-section (see fig. 5.5). As the row finishes out, Rzewski melts the Brahms-like slurs into Webern-like pointillism, showing his own pianistic virtuosity through little more than articulation, making this piece a joy to play for the performer. Rzewski then shows his improvisatory tendencies by giving the pianist four units of

music to be played in any order, any number of times. This brings the C section crashing to a close, preparing the B' section.

Just as the B section did earlier, the B' section begins with a quotation of the main theme. This is interrupted by the same notation used for the gong-like chords in the A section, though someone reading the score must be careful not to assume this is a return of the opening section. The harmony here is nothing but open fifths, and the audience can easily tell this is not a return of the A section, so the pianist must agree with this interpretation and play accordingly. These open fifths carry the pianist up to the top of the keyboard where the upbeat melody from the B section returns, now played in B $\flat$  major. This modulates by chromatic mediant to D major, and then by relative minor to B minor, the overall key of the sonata. With the theme now being played in B minor, the pianist begins to cascade down the keyboard, all the while growing in volume. This section is a fantastic example of Rzewski's ability to blend tonality and atonality, as the B minor harmonies become less and less functional and hexatonicism begins to take over (see fig. 5.7). Crashing on the lowest B of the piano, the pianist is allowed just a moments rest as the only silence in the piece takes place. This moment will make audience members gasp, bring them to the edge of their seat, and hold their attention throughout the only remaining section of the sonata.

The transition into the A section uses serialism, though now Rzewski has allowed for a full 12-tone row. In the lowest register of the piano, both hands work together to play six independent serial lines. Similar to the other tone rows used throughout the sonata, this row has not been seen before and will not be seen again, but it is comprised of important internal pitch class sets, such as hexatonic subsets and Bartókian expansion sets. The serial lines come crashing for a final time to the lowest B on the piano, and only now do the gong-like chords from the A

section return. They ascend up the piano, using many familiar harmonies seen throughout the movement, and grow to repeat the lone B7 at the top of the keyboard at triple forte. When this B is at its loudest, the A# just below creeps in silently, being repeated sporadically and irregularly. The B dies out, fading *a niente*, while the A# grows louder and louder with every sporadic strike, instructed to be repeated at least twice after the B has ended. Given the sonata's overall key center of B minor, these two pitches show the tonic fading away while the leading tone intermittently shocks the audience. Rzewski includes this writing in his score, "The final notes should not have the character of a cadence but rather the contrary, of something unfinished; it should not be clear whether another sound is coming, until all sound has in fact died away."

Frederic Rzewski was an awe-inspiring composer, remarkable pianist, and an unapologetically proud force to be reckoned with. Even in the study of his non-political music, like *Four Pieces*, there is something uniquely profound about the way he approaches music and encourages music making. For all he did for music over the 83 years of his life, it is a joy to listen to, play, and study the music he left the world. His impact on not only American music, but the western canon as it continues today will not be forgotten, and the messages he conveys in his music will not go unheard. In his words, we do not know if his music will actually change the world, "but you have to write as if it could."

**Appendix A: Errata****First Piece**

<b>Location</b>	<b>Inaccuracy</b>	<b>Correction</b>	<b>Explanation in Paper</b>
Page 3, system 3, measure 4, last eighth note of the first beam, left hand	B $\sharp$ and C $\flat$	B $\flat$ and C $\sharp$	Page 32
p. 4, sys. 2, m. 10.5, downbeat, LH	G $\sharp$ 3 at the top of the rolled chord	A $\sharp$ 3	Page 35
p. 6, sys. 1, m. 26, last sixteenth note, right hand	Accidental ambiguity on F	F $\sharp$	Page 35
p. 8, sys. 4, m. 36	The tempo marking from the previous measure is still in effect	“Free time”	Page 47
p. 8, sys. 5, m. 37, between the 3 <sup>rd</sup> and 4 <sup>th</sup> stem, RH	The bass clef is still in effect	Treble clef until the next bass clef	Page 47-48

**Second Piece**

<b>Location</b>	<b>Inaccuracy</b>	<b>Correction</b>	<b>Explanation in Paper</b>
p. 10, sys. 4, m. 29, beat 2, LH	F $\sharp$	F $\flat$	Page 65
p. 11, sys. 3, m. 46, second eighth note, RH	C $\sharp$	C $\flat$	Page 68
p. 11, sys. 4, m. 47, beat 2, second eighth note, LH	B $\flat$ in lowest voice	B $\sharp$	Page 71
p. 14, sys. 3, m. 114, beat 1, third triplet	A $\sharp$	C $\sharp$	Page 83

**Third Piece**

<b>Location</b>	<b>Inaccuracy</b>	<b>Correction</b>	<b>Explanation in Paper</b>
p. 27, sys. 3, m. 86, beat 2, second sixteenth note, RH, "alto" voice	Pitches C-B marked as eighth notes	Should be sixteenth notes	Page 147-148
p. 27, sys. 5, m. 90, beat 4, LH, "tenor" voice	B $\sharp$ dotted sixteenth note	B $\flat$	Page 147-148
p. 27, sys. 5, m. 90, beat 4, second sixteenth note, LH, "tenor" voice	G $\sharp$	The accidental from the note previous still applies, the note should be G $\natural$	Page 148
p. 27, sys. 5, m. 91, last 32 <sup>nd</sup> note, RH, "soprano"	E-G $\sharp$	The E $\natural$ needs a courtesy accidental	Page 147-148

**Fourth Piece**

<b>Location</b>	<b>Inaccuracy</b>	<b>Correction</b>	<b>Explanation in Paper</b>
p. 35, sys. 1, m. 40, beat 1, RH	B $\flat$ -D $\flat$ whole note	Dotted whole note	Page 169
p. 37, sys. 4, text beneath the staff pointing to <i>ppp</i>	"on the everage"	"on the average"	N/A

**Appendix B: Repeated Chords in the A Sections of the 4<sup>th</sup> Piece**

Chord Number	Normal Form	Prime Form	Similarities to chord previous	Significance
<b>Measure 1</b>				
1	[11]	(0)	N.A.	B natural is the “tonic” of the entire sonata, same N.F. as chord 34b (last chord)
2	[10,11]	(01)	+1 (added tone)	Two ending pitches of the movement
3	[6,10,11]	(015)	+1	Same P.F. as chord 29
4	[6,7,10,11]	(0145)	+1	Important set throughout second movement, hexachordal set, has been emerging out of the other chords, same P.F. as chord 40
5	[6,7,9,10,11]	(01245)	+1	
6	[6,7,8,9,10]	(01234)	+1 -1 (subtracted tone)	Extended semitone cluster that has been so prevalent in all movements, same P.F. as chord 13
7	[3,6,7,8,9,10]	(012347)	+1	Addition of minor third on top of semitone cluster, also perfect fifth above bottom of cluster
8	[7,8,9,10,2,3]	(012378)	+1 -1	Same P.F. as chord 11 and 23
9	[1,2,3,7,8,9]	(012678)	+1 -1	Semichord clusters tritone away
10	[1,2,3,4,7,8,9]	(0123678)	+1	First septachord, the thickest this section will go, same P.F. as chord 26
11	[1,2,3,4,8,9]	(012378)	-1	Same P.F. as chord 8 and 23
12	[1,2,3,4]	(0123)	-2	Semitone cluster tetrachord, most common variation throughout sonata
13	[1,2,3,4,5]	(01234)	+1	Same P.F. as chord 6
14	[1,2,3,4,5,9]	(012348)	+1	(0123) begins to morph into hexachordal set
15	[9,11,1,3,4,5]	(012468)	+1 -1	
16	[9,11,0,1,4,5]	(014568)	+1 -1	First instance of Cnat, same P.F. as chord 18
17	[0,1,4,5,8,9]	(014589)	+1 -1	Same P.F. as chord 29b, Full hexachordal set
18	[5,7,8,9,0,1]	(014568)	+1 -1	Same P.F. as chord 16
19	[7,8,9,0,1,2]	(012567)	+1 -1	Semichord clusters a perfect fifth apart, same P.F. as chord 27
20	[0,2,4,7,9]	(02479)	+1 -2	One of two chords without a semitone, pentatonic

Martschenko

21	[7,8,9,0,2]	(01257)	+1 -1	
22	[7,8,9,10,0,2]	(012357)	+1	
23	[7,8,9,10,2,3]	(012378)	+1 -1	Same P.F. as chord 8 and 11
24	[7,8,9,10,11,2,3]	(0123478)	+1	Return of semitone cluster
25	[2,3,5,7,9,10,11]	(0124689)	+1 -1	
26	[9,10,11,2,3,4,5]	(0123678)	+1 -1	Same P.F. as chord 10
27	[10,11,0,3,4,5]	(012567)	+1 -2	Same P.F. as chord 19
28	[10,11,0,4,5]	(01267)	-1	Same P.F. as chord 5b
29	[11,0,4]	(015)	-2	Shrinking of previous chord, same P.F. as chord 3
30	[11,0,4,7]	(0158)	+1	Same P.F. as chord 35
31	[0,4,7]	(037)	-1	C Major
32	[7,0,1]	(016)	+1 -1	Same P.F. as chord 33, 3b
33	[0,1,6]	(016)	+1 -1	Same P.F. as chord 32, 3b
34	[0,1,5,6]	(0156)	+1	Same P.F. as chord 39
35	[5,6,10,1]	(0158)	+1 -1	Same P.F. as chord 30
36	[10,1,2,5,6]	(01458)	+1	Same P.F. as chord 18b, 20b, 23b, 25b, 30b, One pitch shy of hexatonic
37	[10,11,1,2,5,6]	(013478)	+1	Same P.F. as chord 17b, 22b, 27b, Two minor chords stacked on top of each other from first movement
38	[10,11,2,5,6]	(01478)	-1	Same P.F. as chord 24b, 26b
39	[5,6,10,11]	(0156)	-1	Same P.F. as chord 34
40	[6,7,10,11]	(0145)	+1 -1	Important set in second movement, same P.F. as chord 4
41	[7,10,11]	(014)	-1	Same P.F. as chord 42
42	[10,11,2]	(014)	+1 -1	Same P.F. as chord 41
43	[10,11]	(01)	-1	Opening chord



Martschenko

<b>Measure 66</b>				
1b	[11]	(0)	NA	Same as the first chord of opening, B is the tonic
2b	[11,0]	(01)	+1	Inverse of chord 2 from opening, exact same pitches as first movement A section
3b	[6,11,0]	(016)	+1	Same P.F. as chord 32, 33
4b	[11,0,1,6]	(0127)	+1	
5b	[6,7,11,0,1]	(01267)	+1	Same P.F. as chord 28
6b	[0,1,6,7]	(0167)	-1	Bartok Expansion chord
7b	[0,1,3,6,7]	(01367)	+1	
8b	[0,1,3,4,6,7]	(013467)	+1	
9b	[1,3,4,5,6]	(01235)	+1 -2	
10b	[1,2,3,4,5,6]	(012345)	+1	Larger semitone cluster
11b	[1,2,3,4,5,8]	(012347)	+1 -1	Same P.F. as chord 7
12b	[2,3,4,5,8]	(01236)	-1	
13b	[2,3,4,5,8,11]	(012369)	+1	
14b	[8,11,2,3,4]	(01258)	-1	
15b	[8,10,11,2,3,4]	(012568)	+1	
16b	[8,10,11,2,3]	(01457)	-1	
17b	[7,8,10,11,2,3]	(013478)	+1	Same P.F. as chord 37, 22b, 27b, Tremolo chords from first movement
18b	[7,10,11,2,3]	(01458)	-1	Same P.F. as chord 36, 20b, 23b, 25b, 30b, one pitch shy of hexatonic
19b	[7,10,11,2]	(0347)	-1	Split third chord, hexatonic subset
20b	[6,7,10,11,2]	(01458)	+1	Same P.F. as chord 36, 18b, 23b, 25b, one pitch shy of hexatonic
21b	[5,6,7,10,11,2]	(012569)	+1	
22b	[10,11,1,2,5,6]	(013478)	+1 -1	Same P.F. as chord 37, 17b, 27b, Tremolo chords from first movement
23b	[1,2,5,6,9]	(01458)	+1 -1	Same P.F. as chord 36, 18b, 20b, 25b, 30b, one pith shy of hexatonic
24b	[5,6,9,0,1]	(01478)	+1 -1	Same P.F. as chord 38, 26b
25b	[8,9,0,1,4]	(01458)	+2 -2	Same as chord 36, 18b, 20b, 23b, 30b, one pitch shy of hexatonic
26b	[8,9,0,3,4]	(01478)	+1 -1	Same P.F. as chord 38, 24b
27b	[8,9,11,0,3,4]	(013478)	+1	Same P.F. as chord 37, 17b, 22b, Tremolo chords from first movement
28b	[7,8,9,11,0,3,4]	(0124589)	+1	Hexatonic with one extra semitone
29b	[3,4,7,8,11,0]	(014589)	-1	Same P.F. as chord 17, fully hexatonic set

Martschenko

30b	[7,8,11,0,3]	(01458)	-1	Same as chord 36, 18b, 20b, 23b, 25b, one pitch shy of hexatonic
31b	[11,0,3,7]	(0148)	-1	Hexatonic subset
32b	[3,7,11]	(048)	-1	Hexatonic subset
33b	[7,11]	(04)	-1	Hexatonic subset, major third
34b	[11]	(0)	-1	Tonic of the sonata; B, same N.F. as chord 1

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**Commented [ME7]:** Look up hexatonic in groves, look at the Rzewski books on my desk, cite the interviews including Michael schell, look at the jo straus dissertation on octatonic

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