BLOOD ON THE PAVEMENT 1984

by

Devon Osamu Tipp

Bachelor of Music, Montclair State University, 2015

Submitted to the Graduate Faculty of

The Kenneth P. Dietrich School of Arts and Sciences in partial fulfillment

of the requirements for the degree of

Master of Arts in Theory and Composition

University of Pittsburgh

2018

UNIVERSITY OF PITTSBURGH DIETRICH SCHOOL OF ARTS AND SCIENCES

This thesis was presented

by

Devon Osamu Tipp

It was defended on

March 30, 2018

and approved by

Mathew Rosenblum, Professor, Department of Music

Marcelle Pierson, Lecturer, Department of Music

James P. Cassaro, Professor, Department of Music

Thesis Director: Mathew Rosenblum, Professor, Department of Music

Copyright © by Devon Osamu Tipp

2018

BLOOD ON THE PAVEMENT 1984

Devon Osamu Tipp, M.A.

University of Pittsburgh, 2018

Blood on the Pavement 1984 is a ten-minute musical composition for clarinet in B-flat (doubling bass clarinet), grand piano, violin, viola, and cello. This thesis will address key concerns regarding the generative pitch materials and numerical constructs that govern the overall form of the piece. First I provide aesthetic context for the work by exploring its influence, primarily the works of Irish-born artist Francis Bacon. This composition is as much an ode to the artist as it is a portrait of myself. Secondly, I describe the pitch, rhythmic and numerical constructs that dictate the gestural and registral aspects of the composition, as well as the symmetries that are built into the tone rows that serve as the armature for the composition. After outlining these major structural, I relate them to the aleatoric timbral trajectories of the composition, and describe how the harmonic and rhythmic cells are mutated and transformed by extended techniques and microtones.

TABLE OF CONTENTS

1.0		INTRODUCTION – FRANCIS BACON
	1.1	BLOOD ON THE PAVEMENT 1984 AND STUDY OF A BULL
	1.2	INSTRUMENTATION AND OVERALL FORM
2.0		PITCH: TONE ROWS AND THE ROLE OF HARMONIC SYMMETRIES
3.0		RHYTHM: THE RELATIONSHIP BETWEEN RHYTHM PITCH AND THE
FIB	ONA	CCI SEQUENCE
4.0		DISTORTION: TIMBRAL MUTATION
5.0		CONCLUSION1
BIB	LIO(GRAPHY18
		DIX A: BLOOD ON THE PAVEMENT 1984

LIST OF FIGURES

Figure 1: BoP Tone Rows
Figure 2: Deviations from Fibonacci derived durations, mm.8-11
Figure 3: Spectrographic analysis of a B-flat4 artificial harmonic tremolo. X axis shows times, Y
axis shows Hz. Red lines indicate pitches B-flat3, B-flat4, and B-flat6. Partials below -30db have
been deleted
Figure 4: Spectrographic analysis of a stable B-flat4 artificial harmonic, without tremolo. Red line
indicates pitches B-flat 2, B-flat 4, and B-flat 6. Partials below -30db have been deleted 14
Figure 5: Aleatoric natural harmonic "heartbeats" - mm.66-67

ACKNOWLEDGEMENTS

I would like to extend my gratitude to several musicians whose input helped me compose this work: cellists Cecilia Caughman and Steven Moon for helping me better understand the extended techniques that are employed in the piece. Clarinetist Gleb Kanasevich for his advice on writing for clarinet, and always inspiring me to push my musical boundaries. I would also like to thank the musicians of Counter)Induction: Benjamin Fingland, Jacob Rhodebeck, Miranda Cuckson, Hannah Levinson, and Robert Burkhardt for reading and recording *Blood on the Pavement 1984* on March 18th while in residence at the University of Pittsburgh.

Spectral analyses were produced through the program SPEAR, and use samples recorded by Ms. Caughman and Mr. Moon.

Finally I would like to thank the faculty here at Pitt: Dr. Eric Moe, Dr. Marcelle Pierson, James Cassaro, and Dr. Mathew Rosenblum for their support and encouragement during my two years here at the University of Pittsburgh.

1.0 INTRODUCTION – FRANCIS BACON

Since 2015, I have been preoccupied by the works of Irish-born painter, Francis Bacon (1909-1992) whose creative output spanned over sixty years of the twentieth century. Six of my recent compositions have been directly inspired by Francis Bacon's work - *Self Portrait*, *Photoetched in Brass, Splintered Ringing, Blood on the Pavement 1984*, and *Music for Cannibals* - and several of them took further inspiration from Giles Deleuze's *Francis Bacon: The Logic of Sensation* (Minneapolis: University of Minnesota Press, 2002) and David Sylvester's interviews with the artist, which were conducted in the 1960's, 70's and 80's.

Bacon's artwork is figurative, and consistently focused on individual moments in time, or individual figures that are almost always distorted or disfigured. His most famous paintings depict popes, crucifixions, as well as portraits of his closest friends. Many of his early works used source materials from other artists such as the screaming nanny from Sergey Eisenstein's film *Potemkin* (1925), studies of the figure in motion by photographer Eadweard Muybridge, and photographic reproductions of medical x-rays. Similar practices continued throughout his career, and many of Bacon's portraits of his friends were painted either from memory or photographs. Live models were rarely used.

¹ David Sylvester, *Interviews with Francis Bacon* (New York: Thames & Hudson, 1987), 32-34

1

The initial title for the work was *Music for Cannibals*. This represents one of two principle aspects of the piece: sounds or music that consumes itself. The other governing aspect of the composition is the obfuscation of the familiar and the comfortable. Like Bacon, "I want to distort the thing beyond the appearance, but in the distortion to bring it back to a recording of the appearance." The "thing" for Bacon was the subjects of his paintings: animals, humans, crucifixions, death masks, coupled figures, jets of water, and countless other items. While I am not composing overtly recognizable figures, I am interested in taking small motivic cells and manipulating them to the point of implosion and dysfunction. These sorts of high-risk sounds are a recurring trope in my music since *Polymorphia* (2009), a chamber concerto for solo cello, strings, piano, and percussion that is one of my first completed compositions. However, it is only within the last three to four years that I have consciously endeavored to fully integrate these artistic principles into my creative process.

1.1 BLOOD ON THE PAVEMENT 1984 AND STUDY OF A BULL

The structure of this composition crystalized in October 2017 when I discovered Bacon's minimalist painting, *Blood on the Pavement 1984*³ (here forward referred to as *BoP*). It is a noteworthy aberration in his oeuvre. Between the 1940 and his death, Bacon produced less than twenty landscape paintings. The vast majority of these were producied in the 1940s, '50s, and '80s. The rest of his output consists of portraits, self-portraits, and studies of figures, sometimes human, sometimes animal. I put aside the original working title, *Music for Cannibals* in favor of

² Ibid., 40.

³ See the http://www.francis-bacon.com/artworks/paintings/blood-pavement accessed on March 30, 2018

the title used by Bacon. The "tripartite planar structure" of *BoP* inspired the registral and timbral architecture of my piece. Unlike numerous other works, such as *Crucifixion* (1965) or *Tripytch May-June* (1973), little documentation exists.⁴

This lack of documentation frustrated me significantly. As an amateur visual artist/painter and former jeweler, I am inspired by other artists various creative approaches. Bacon's artwork has always intrigued me since he not only painted with brushes, but also "impregnated" rags and textured fabrics with oil paints, smearing them across the canvas. Objects like knives, combs, scrubbing brushes, brooms and nailbrushes were also used to manipulate his materials. Chance also played a great role in his creative process, and Bacon regularly threw his oil paints against the canvas, a technique that produced entirely random results. Through these sorts of planned accidents, Bacon would manipulate his paints until a satisfying work formed, or he would destroy the work.

While *BoP* presented me with a clear vision of the piece I wanted to compose, I still felt like something was missing. Towards the end of the precompositional phase, I rediscovered Bacon's last completed painting, *Study of a Bull*⁷ (1991). In this work, oil and aerosol paints were mixed with dust from his own studio and applied to a predominantly unprimed canvas. According to art historian Martin Harrison this is significant as

it was Bacon painting his own death...[he]is ready to sign off...he was so ill. He knew exactly what he was doing here. Is the bull making an entrance? Is he receding to somewhere else? To his cremation? Using dust in his painting was terribly poignant...[Bacon] often used to say: 'Dust is eternal, after all we all return to dust.'⁸

⁴ Francis Bacon, Francis Bacon: Catalogue Raisonné (London: The Estate of Francis Bacon, 2016), 1288

⁵ Bacon, 15.

⁶ Sylvester, 90-92.

⁷ See http://www.francis-bacon.com/artworks/paintings/study-bull accessed March 30, 2018.

⁸ Mark Brown, "Francis Bacon: Final Painting found in 'very Private Collection," *The Guardian*, February 23, 2016. Accessed February 11, 2018. https://www.theguardian.com/artanddesign/2016/feb/23/francis-bacon-study-of-a-bull-1991-final-painting

My piece is an anachronism built from the tripartite construction of the titular painting, the oil-dust paint mixture found in *Study of a Bull*, and thrown oil and sprayed aerosol paints.

1.2 INSTRUMENTATION AND OVERALL FORM

Despite the challenges and limitations with it, I knew that my interpretation of *BoP* required a grand piano. A standard baby grand piano is actually smaller than Bacon's original painting. The extended techniques that the pianist must execute inside the piano is representative of moving paint over large distances.

I chose to compose for strings as the bow is evocative of brushes, rags, and other assorted utensils for painting. For example, ricochet bowing in the strings or natural harmonics in the piano can represent throwing paints with the brush, or with one's hand. Over the course of eight measures, bows can traverse up to half the length of the fingerboard: this kind of timbral mutation is a very slow form of circular bowing and represents mixing and moving paint with rags or sponges.

Finally, I chose the clarinet and bass clarinet for three reasons. Firstly, I wanted to create a strong contrast between the first and third portions of my composition, and wanted the timbre of the lowest register of the piano harmonized with the bass clarinet. The opening viola-bass clarinet duo is my sonic representation of the bottom grey/blue panel of Bacon's painting. The rest of the composition is performed on a standard B-flat clarinet. Second, I wanted the breath accents of the clarinet to help propel the middle portion of the composition. Finally, I knew from the onset of composing this work that I wanted to utilize the sound of teeth on the reed. This

technique produces a thin and unstable sound pitched at approximately F-sharp7 and serves as the pitch destination of the composition.

My composition begins in the bottom left-hand corner of Bacon's painting. Minutes three to six (mm.46-91) explore the middle section of the painting, the titular pavement and blood spatter. The sonic impetus of this section is a loose interpretation of reverse tape techniques often heard in *musique concrète*. This approximation is complemented by irregular "heartbeats" in the strings and clarinet.

At approximately minute seven (m. 92), the composition leaves the blood behind and ascends into the top black portion of the canvas. I have anachronistically combined the top black segment of *BoP* with the dust from Bacon's *Study of a Bull*. The extended string timbres blend with the shrill F-sharp7 in the clarinet to produce a distorted unison/octave. These intense sonorities represent mixing dust with black paint, only to be cut off by a sudden horizontal bowing, which brings about the end of the work.

2.0 PITCH: TONE ROWS AND THE ROLE OF HARMONIC SYMMETRIES

BoP is divided into three segments, each lasting approximately three to three and a half minutes, totaling between ten and eleven minutes. Segment 1 presents a six-note tone row in a descending tessitura accompanied by accelerating rhythms (mm.1-42). Segment 2, a three-minute span (mm.46-91) where pitch materials are further distorted through extended techniques, such as tremolos on natural and artificial string and piano harmonics, and breath accents and glissandi in the clarinet, all representative of painting techniques, and flowing blood. This produces a wide variety of purposefully indeterminate microtonal and timbral distortions of otherwise readily recognizable playing techniques. Segment 3, the final section (mm.92-end) concludes with an all-encompassing blackness, where pitches are almost entirely obfuscated by extended techniques, culminating on a near unison F-sharp7.

The harmonic and melodic content of the composition is primarily dictated by three short tone rows (see fig. 1): one six-note row that serves as the armature for the first and third segments, and one four-note cell that serves as the foundational materials for Segment 2. The six-note row is introduced between mm.1-18. It is later expanded into a nine-note row between mm.27-40.

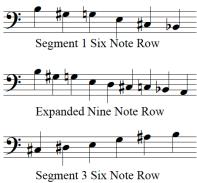


Figure 1: *BoP* Tone Rows

The row is introduced in an additive fashion. The first two pitches of the row are presented as a descending dyad, then are repeated, and the third note of the row is then added. This process repeats until all six pitches are present, harmonized by the bass clarinet in parallel minor tenths (mm.1-20). Attack rhythms were initially dictated by the Fibonacci sequence, specifically durations corresponding to two, three, five, and eight beat patterns. I will discuss this more in the following section of this thesis.

Segment 1 (mm.1-46) of the composition, the grey/blue bottom portion of Bacon's painting, covers a descent from the sounding pitch D5 (bass clarinet) to A1. As the ensemble texture increases in contrapuntal activity, the timbres begin to shift and mutate more rapidly. Between mm.15 and 24, string players collectively change the position of their bows eleven times at different rhythmic intervals. By deliberately relocating the bowing position, the string players activate different partials from the overtone series as they approach the bridge, and conversely mute those overtones as the bow moves away from the bridge, creating a subtly shifting timbral landscape. With the exception of the depressed sustain pedal, the pianist plays traditional musical figures. Since the sustain pedal is employed for the entirety of the composition, clashing harmonic worlds emerge from the piano.

Segment 3 (mm. 92-130) of the composition, the top black panel of the Bacon, is a formal complement to Segment 1 and presents a retrograde of the opening row in an ascending six-note figure, first presented by the piano at m. 92, supported by indeterminate pitches produced by bowing the bridges of the cello, viola and violin (mm. 92-116). The clarinet harmonizes this ascending row (mm. 104-114) in a modified *fauxbourdon*⁹ motion consisting of

⁹ A type of musical harmonization used in the late Middle Ages and early Renaissance, based on parallel sixth chords.

parallel ascending minor and neutral (microtonally-augmented) sixths. The role of the clarinet has shifted; in Segment 1 the bass clarinet is the highest voice in the dyad. Now the B-flat clarinet serves as the root of the dyad and plays underneath the piano.

Pitch material for Segment 2 (mm.46-91), the middle portion of the painting, was constructed intuitively from an ascending microtonal intervallic line presented in the piano, surrounding the pitches C5, D5, D-sharp 5, and F-sharp 5. Bacon's paintings were often created by chance elements, like throwing oil paint at the canvas or mixing paint with rags. In this section of the composition, I am vigorously combining my oils on the canvas with sliding artificial harmonics and tremolos. The microtonal inflections are colors that produce the sensation of coagulating blood on the pavement. I will discuss the mutations of sound that define this segment in the final portion of this thesis.

I created two precompositional rules that would create an organic arch for the composition. Firstly, instrumentalists should not play unisons, octaves, perfect fourths, or perfect fifths at the same time as another instrument. Secondly, attack rhythms were initially dictated by Fibonacci numbers. I created two solutions for when these prerequisite rules were "broken." Attack rhythms were altered so that two voices did not sound on the same beat, and/or pitches were altered by a quarter of a tone in either direction. This produces a natural momentum that sustains the first segment of the composition, and is reversed in the final segment of the composition. Instead of complex five voice counterpoint, Segment 3 focuses on a single homophonic ascending line, shared by all instruments.

3.0 RHYTHM: THE RELATIONSHIP BETWEEN RHYTHM PITCH AND THE FIBONACCI SEQUENCE

As mentioned above, it was imperative in the first segment of the composition that perfect intervals sounding in different voices at the same time should not happen. My rules for the piece were created to maintain a certain amount of rhythmic and harmonic rigidity from the onset of the composition in an effort to keep my compositional ideas from growing out of control. Initially attack rhythms were dictated by a sequence of numbers derived from the Fibonacci sequence. However, using these whole number values quickly led to a composition that was predictable, and produced awkward moments of harmonic stability that I did not intend. I expanded the numerical sequences to include multiples of the Fibonacci sequence, as well as other prime numbers, namely 13. The most common whole number durations in the composition are 13, 11, 9, 8, 5, 3, 2 and 1. The first twenty measures of *BoP* is an example of how simple Fibonacci attack rhythms are utilized and altered.

The bass clarinet and the viola operate as a hybrid instrument, changing pitches according to durational values that correspond to the numeric series described above. The pianist and violinist join later, altering their attack rhythms to avoid performing unisons, octaves and fourths. Measures 8-11 demonstrates two significant alterations to the Fibonacci rhythms (see fig. 2). Firstly, the pianist alters the durations of the notes B2, G-sharp 2, and G2 to three whole notes. Secondly, the violinist's D6 is a four-beat duration. If this were a five-beat duration, the violinist's C6 would coincide with the piano's G2 in m. 10. I further complicate the sonority by raising the violinist's C by a quartertone. Another example of this can be seen at m. 16. The

violist cannot produce a unison with the piano, therefore an extra beat is added to the violist's G3, starting one measure prior to rehearsal 2.

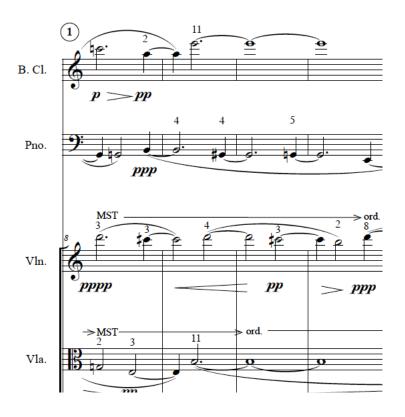


Figure 2: Deviations from Fibonacci derived durations, mm.8-11

Measures 17-23 are an intuitively composed lattice of interweaving contrapuntal voices, where I endeavored to keep pitches changing regularly, and rarely at the same time. Having notes change at irregular intervals independent of one another creates a more compelling harmonic momentum, pushing towards Segment 2. Measure 28 represents another noteworthy deviation from the precompositional rules, as the bass clarinet and piano execute a perfect 11th three beats before rehearsal 4. Nonetheless, this momentary perfect interval is masked by the dissonant intervallic content in the violin and viola, as well as the complex contrapuntal motion between the strings. Between mm. 28-47, the rhythmic structures break down and the violin and cello play a microtonally-expanded version of the nine-note row in an improvisatory canon,

beginning at m.31. The cello leads, and the violin plays similar descending phrases in a variety of contrasting sevenths, sixths, and occasionally ninths.

Attack rhythms in the second segment (mm.46-91) were initially dictated by Fibonacci numbers. In extended passages such as mm. 70-85, repeated pitches are dealt with as groups instead of individual instruments. Individual instruments typically begin and end their phrases according to Fibonacci numbers. For example, starting at m.73, the cello plays an eight-beat tremolo. The viola begins a fifteen-beat tremolo on the eighth beat of the cello tremolo (m. 75). Similarly, the violinist commences their tremolo on the eighth beat of the viola's tremolo (m. 76). The composite sonic image is a twenty-three beat long combined artificial and natural harmonic tremolo.

These sorts of overlapping numerical devices served as the rhythmic core of Segment 2. The structure of Segment 3 (mm. 92-130) abandons the rigidity of the Fibonacci rhythms proscribed in the beginning of the piece. Distinct pulses cease between mm.114-124, and returns at m. 125.

4.0 DISTORTION: TIMBRAL MUTATION

Complementary and inversional ideas permeate *BoP*. This final section of the thesis will discuss in depth the timbral distortions that make up the bulk of the composition, and how they relate to my interpretation of Bacon's paintings. The most obvious formal complement is heard in the first and third segments of the composition. The descent that drives the first forty-six measures of the piece is reversed in the last thirty-nine, ascending into timbral dust.

Distortion of pitch in Segment 1 is primarily limited to the string players regularly changing bow positions. The string players' bows represent either brushes or paint-filled rags traversing the canvas. As the bow moves further away from the bridge, less harmonics are activated, and the timbre becomes thinner, and softer. Conversely, when the bow moves closer to the bridge, higher overtones are emphasized, creating a more present sound. As the bow moves, the harmonic content of each note constantly changes, adding a subtle layer of rhythmic complexity to the piece, one that is not explicitly controlled. Changes occur in approximate durations (in intervals of measures, not individual beats) proportionate to the ad hoc Fibonacci sequence mentioned in the previous section. Furthermore, moments of maximum timbral mutation, such as mm. 35-45, are indicators of a new segment. The violinist, violist, and cellist are changing not only bow position, but also increasing bow pressure, producing sounds approximately an octave lower than written. Segment 1's descent is a literal crushing of pitch, heralding the beginning of Segment 2.

Segment 2 is the most timbrally unstable section of the piece. Whereas the opening segment presents complex five-voice counterpoint, encompassing nearly six octaves of different pitches, all instruments are still essentially performing normally produced tones. In other words,

no extended techniques are present until m. 40. The second segment introduces natural and artificial harmonics, combined with glissandi and finally trills and tremolo.

This purposeful disruption of normative tone production introduces highly volatile sounds. Therefore, the ostensible sonic images of mm. 64-68 and mm. 87-91, are not simply harmonic conglomerates of pitches between a sounding D-flat 4 in the cello and a sounding B6 in the violin. The composite sound will most likely be more complex than what is reflected in the score. Because of the ricochet bowings that pervade the entire second segment, it is likely that no matter how skilled the players may be, a multiphonic or incorrect pitch may sound. The written rhythms produce dense polyphonic textures, and are complicated and distorted ricochet bowing. Tremolos only further distort and contort what would otherwise be simple gestures, and elevate the sound to a moment of complete obscurity.

If a performer alternates quickly between a regularly fingered note (one finger depressing the string) and an artificial harmonic, a tremolo effect is achieved. Figure 3 is a spectrographic analysis of a cello B-flat4 artificial harmonic tremolo as indicated by the red line. Both the fundamental and the sixteenth partial are audible. The pitches one octave below the fundamental, as well as the third, fifth, seventh, ninth, and eleventh partials are present in this sound, creating the allusion of an extended major sonority. This is a significantly more complex sound than a standard artificial harmonic, which simply isolates a single fundamental (see fig. 4.) Tremolos such as those in mm. 58-63 in the violin produces a steady multiphonic texture.

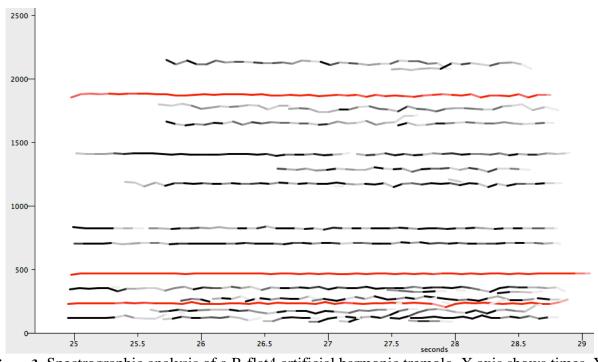


Figure 3: Spectrographic analysis of a B-flat4 artificial harmonic tremolo. X axis shows times, Y axis shows Hz. Red lines indicate pitches B-flat3, B-flat4, and B-flat6. Partials below -30db have been deleted.

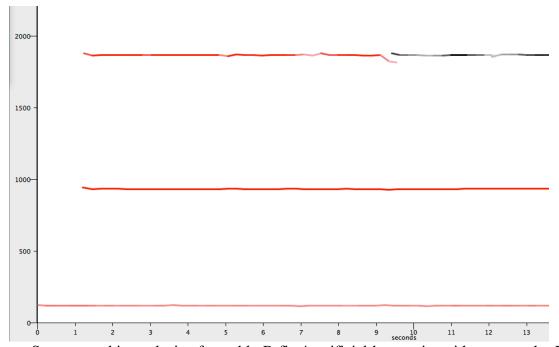


Figure 4: Spectrographic analysis of a stable B-flat4 artificial harmonic, without tremolo. Red line indicates pitches B-flat 2, B-flat 4, and B-flat 6. Partials below -30db have been deleted.

These complex sonorities are combined with glissandi in mm. 64-69, 82-91, and 114-124. The visual parallel is mixing paint on the canvas with rags (mm. 64-82-91) or mixing paints with dust (mm. 114-124). The delicate nature of artificial harmonics, combined with a tremolo and a glissando makes this an accident-prone sound, and will likely produce a wide gamut of timbres. If the bow is also traveling between *sul ponticello* and *sul tasto* as it does in the first segment, there is another layer of added rhythmic and timbral complexity.

The piano plays a timbrally mutated "heartbeat" that accumulates indeterminate harmonic cluster chords that drives the ensemble to the end of Segment 2. The sustain pedal in the piano is depressed for the entirety of the piece, creating a complex field of conflicting microtonal structures. One example of this aleatoric harmonic chord progression is in mm. 66-67 (see fig. 5), where the pianist must slide from three 16th partial harmonics (produced by gently placing one's finger on the proper node of the string) to a single 7th or 14th partial. During this transition, several different harmonics and multiphonics may be activated, and it is my hope that several multiphonics will "accidentally" be activated in this process, just like Bacon's randomly thrown paints. The sustain pedal will amplify whatever sonic results occur.



Figure 5: Aleatoric natural harmonic "heartbeats" - mm.66-67

If mm. 59-68 and 83-91 are the height of mutation, Segment 3 beginning at rehearsal 12/m. 92 represents the most harmonically and rhythmically stable portion of *BoP*. The subdued ascent into highest range of the piano (mm. 92-115) is "harmonized" by the bowed bridges of the cello, viola and violin. This technique does not produce distinct pitches, but harmonic groans and

whispers, a sonic nod to Bacon's Bull, huffing and puffing as it exits the canvas. The piano is joined by the B-flat clarinet (m.104) and ascends in parallel minor and neutral sixths. This music is an inversion of the opening of the composition: the B-flat clarinet is now the lower voice, playing underneath the piano and is performing parallel sixths instead of parallel thirds.

Since Segment 3 is a timbral mutation and formal inversion of Segment 1, I felt it necessary that the concluding sounds of the piece ascend. This was dictated by a specific extended technique I wanted to implement: to have the clarinetist play with their teeth on the reed, producing an F-sharp7. To further complicate the composite sonic image of Segment 3, gentle vibrato alters the pitch as far as a quartertone in either direction. The F-sharp7 becomes the destination pitch for all of the strings. The passage immediately preceding the mutated F-sharp7 unison (mm. 124-130) presents the same timbral complexities found in the artificial harmonic tremolo, now compounded with a continuous glissando. This is the dust and paint being mixed on the canvas.

The horizontal bowings that end *BoP* are unlike the subtle timbral transformations that have come before. They are forthright complex timbral changes, derived from the piano's mutated heartbeat rhythms of the second segment; the sound is similar to scraping a palette knife across canvas. The piano has the penultimate gesture in the composition, and plays a microtonally altered approximation of the Segment 3 row as harmonics. As the clarinetist finally runs out of breath, the strings produce a unirhythmic horizontal bow, cuing the pianist to let go of the sustain pedal, signaling the end of the piece.

5.0 CONCLUSION

BoP is one of the most intricate pieces I have written in the past five years. Much of my compositional process was informed by the various numerical, harmonic and timbral concepts mentioned above. I found a tremendous amount of inspiration from Bacon's work, both in how he manipulated his materials and how chance played a vital role in his work. In searching for sonic representation of throwing paint, smearing rags on the canvas, or simply using brushes, I found myself using extended techniques that I had never used before (specifically string tremolos on natural and artificial harmonics) so that I could better capture the essence of the paintings.

By analyzing the harmonic and rhythmic elements of the composition, I discovered that the overall arch of the composition traverses a B neutral triad. Segment 1 (pitch center B) and Segment 3 (pitch center F-sharp) bookmark Segment 2, whose pitch centers are D and D-sharp, negating a clear sense of a major or minor tonality, thus rendering the section harmonically neutral. This underlying harmonic skeleton was not intentional, and has proven to be a powerful compositional tool that I can utilize in future compositional projects.

Throughout the process of writing this piece, I often would take breaks from the written materials, and refer back to the paintings that initially inspired me to write this piece. While sonically experimenting in this piece, I also conducted experiments on the canvas. I threw paint, soaked rags in acrylics, used unconventional materials such as coffee grinds and dust, and manipulated them with palette knives, plastic cutlery and my fingers. These tactile experiences helped to inform my string writing and are the sensations that I want performers to consider while playing this piece. I believe that *BoP* represents a new artistic direction for me, and I am eager to implement these different techniques and ideas in future compositions.

BIBLIOGRAPHY

- Bacon, Francis. *Blood on the Pavement*, 1984, oil on canvas, 78 x 58 in. (198 x 147.5 cm), accessed March 30, 2018, http://www.francis-bacon.com/artworks/paintings/blood-pavement.
- Bacon, Francis. *Francis Bacon: Catalogue Raisonné*, ed. Rebecca Daniels, Martin Harrison. London: The Estate of Francis Bacon; distributed by Heni Publishing, 2016.
- Bacon, Francis. *Study of a Bull*, 1991, oil, aerosol paint and dust on canvas, 78 x 58 in. (198 x 147.5 cm), Private Collection, London,s accessed March 30, 2018, http://www.francis-bacon.com/artworks/paintings/study-bull.
- Brown, Mark. "Francis Bacon: Final Painting Found in 'very private' Collection." *The Guardian*, February 23, 2016. Accessed February 11, 2018. https://www.theguardian.com/artanddesign/2016/feb/23/francis-bacon-study-of-a-bull-1991-final-painting

Sylvester, David. Interviews with Francis Bacon. New York: Thames and Hudson, 1987.

Tipp, Devon Osamu. Blood on the Pavement 1984. Pittsburgh, PA: Devon Osamu Tipp 2018.

Blood on the Pavement 1984

Quintet for Clarinet, Piano, and String Trio

Instrumentation

Bb Clarinet (doubling Bass Clarinet)

Grand Piano

Violin

Viola

Cello

Performance Instructions (all players)

d = quarter tone flat

= quarter tone sharp

Accidentals apply only in the octaves in which they appear.

Strings

MSP - Molto Sul Ponticello

Ord - regular bow position

MST - Molto Sul Tasto

Natural harmonics - sounding pitch is notated, and which string the performer uses to produce that pitch.

↓ ↑= horizontal bowing - bow towards/away from the bridge. Use moderate pressure to distort the sound.

Normale/norm - normal bow pressure

Natural Harmonic Trill - start by producing a natural harmonic. "Trill" by rapidly alternating between a harmonic and open string.

Artificial Harmonic Trills - start by playing a normal artificial harmonic. "Trill" by rapidly alternating between a normal note and an artificial harmonic with second finger.

Piano

Natural harmonics - sounding pitches notated in right hand. Left hand shows which key the performer uses to produce that pitch. \downarrow = ca. 6th tone flat

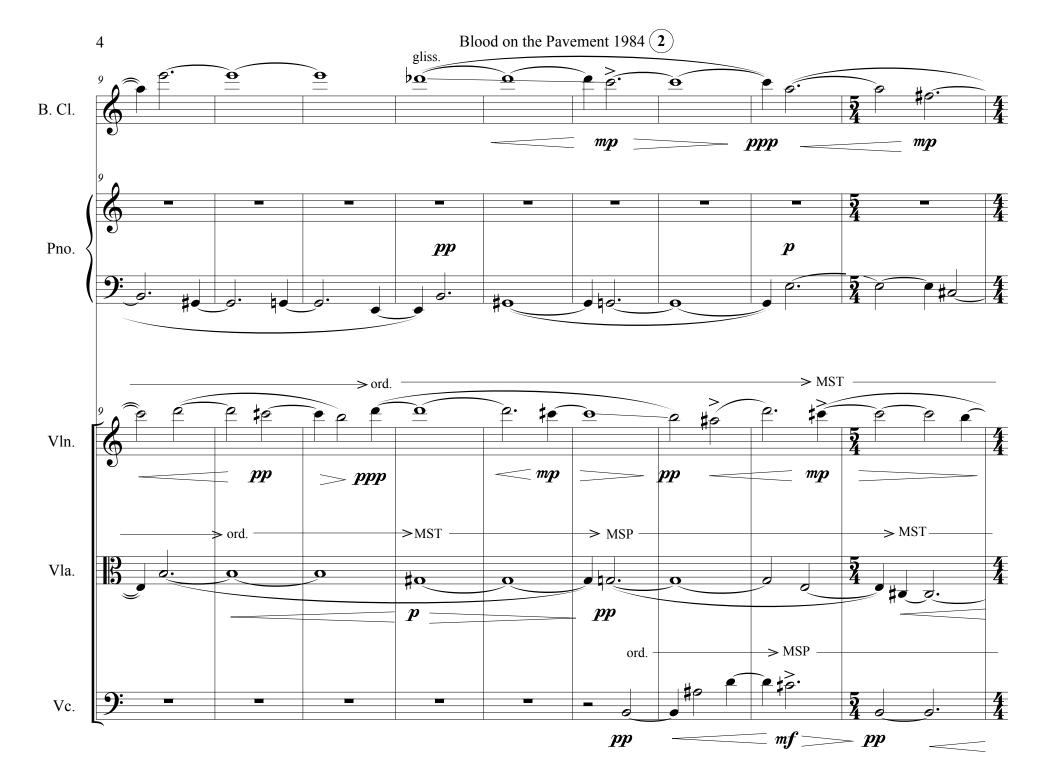
Blood on the Pavement 1984 is approximately 10 minutes in duration.

Blood on the Pavement 1984

for Quintet

Devon Osamu Tipp











6

B. Cl.

Pno.



