



University of HUDDERSFIELD

University of Huddersfield Repository

Baldwin, Michael S.

Effaced/reflected/being: documents and/of/as musicking bodies

Original Citation

Baldwin, Michael S. (2017) Effaced/reflected/being: documents and/of/as musicking bodies. Doctoral thesis, University of Huddersfield.

This version is available at <http://eprints.hud.ac.uk/id/eprint/31494/>

The University Repository is a digital collection of the research output of the University, available on Open Access. Copyright and Moral Rights for the items on this site are retained by the individual author and/or other copyright owners. Users may access full items free of charge; copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational or not-for-profit purposes without prior permission or charge, provided:

- The authors, title and full bibliographic details is credited in any copy;
- A hyperlink and/or URL is included for the original metadata page; and
- The content is not changed in any way.

For more information, including our policy and submission procedure, please contact the Repository Team at: E.mailbox@hud.ac.uk.

<http://eprints.hud.ac.uk/>

Effaced/Reflected/Being:

Documents and/of/as Musicking Bodies

Michael Stephen Baldwin

portfolio of compositions and performances with commentary
submitted to The University of Huddersfield
in partial fulfillment of the requirements for the degree of
doctor of philosophy

January 2017

Copyright Statement

- i. The author of this thesis (including any appendices and/or schedules to this thesis) owns any copyright in it (the "Copyright") and has given The University of Huddersfield the right to use such Copyright for any administrative, promotional, educational and/or teaching purposes.

- ii. Copies of this thesis, either in full or in extracts, may be made only in accordance with the regulations of the University Library. Details of these regulations may be obtained from the Librarian. This page must form part of any such copies made.

- iii. The ownership of any patents, designs, trade marks and any and all other intellectual property rights except for the Copyright (the "Intellectual Property Rights") and any reproductions of copyright works, for example graphs and tables ("Reproductions"), which may be described in this thesis, may not be owned by the author and may be owned by third parties. Such Intellectual Property Rights and Reproductions cannot and must not be made available for use without the prior written permission of the owner(s) of the relevant Intellectual Property Rights and/or Reproductions

Abstract

The submitted portfolio of work emerges from a focus on treating musicking bodies as compositional material. The work explores aspects of awkwardness in performance, slow motion movement, confrontation, simultaneous and multiple forms of intersubjective identity, public presentations of private activities, and dialogic relationships with performance. Because of these interests, and their grounding in performance, my practice has involved developing compositional approaches and strategies for working with documented forms of performance. The accompanying written commentary reflects on the findings of this investigation by focusing primarily on techniques of working with documents of performances.

By considering Nicholas Cook's notion of scores-as-scripts, by which musical scores are expanded from being isolated and autonomous texts of musical work to existing in relationship with instances of performance, I propose the notion of documents-as-scores. Reflecting on the capacity for documentation to transform representations and manifestations of performance, I suggest that chirographic and/or typographic representations of musical notation inscribed in the document-form of sheet music have the potential to function as documentation of performance. Expanding on this potential, and drawing from various definitions of the word "document," I suggest that other document-forms such as audio/video files or human bodies can be musically inscribed to function as scores for performance. These scores are made of document-forms inscribed with information that I treat as material subject to compositional protocols of manipulation, which include protraction, expansion, situation, distortion, effacement, dislocation, isolation, and contextualization, among others. To narrow the scope of this research, I focus on ways in which musicking bodies are intellectually/physically engaged with, represented in, and embodiments of these documents-as-scores.

Integrating examples from the portfolio, the commentary introduces the notion of documents-as-scores and proceeds to examine ways of working with different document-forms. In Chapter 1, physical and digital forms of notation are effaced to articulate facets of awkwardness and integrative destruction in music. In Chapter 2, distended, incomplete, and overlaid video and audio recordings are reflected in performance by looking and listening for representations and indices of physical action. In Chapter 3, humans/persons become formally constitutive embodied documents whose verbal, physical, and musical memories are situated within performative reading contexts.

Table of Contents

A Note on the Portfolio, Figures, and Examples	ixx
List of Portfolio, Figures, and Examples	x
Portfolio	xii
Table of Figures	xv
Table of Examples	xvii
Acknowledgments	xviii
0. Introduction	1
0.1. Background	1
0.2. Current Research	4
0.3. Defining “Documents”	6
0.4. Defining Musicking Bodies	10
0.5. The Documentation of Musicking Bodies	11
0.6. Objectives and Outline	14
1. Effaced	16
1.1. Integrative and Awkward Effacements	16
1.2. Case Study 1: Integrating Processes of Documentation of/as/and Production into <i>Composition with the Sound of Its Own Découpage</i>	17
1.2.1. Découpage	18
1.2.2. Its Own Making	19
1.2.2.1. the Sound of Its Own Making	20
1.2.2.2. Compositions with the Sounds of Their Own Notating	22
1.2.3. Composition with the Sound of Its Own Découpage	25
1.3. Case Study 2: Awkwardly Concealing and Obfuscating Portable Document Format Files in a <i>tenuous/tentative step towards performative awkwardness/clumsiness</i> . 33	
1.3.1. Ensmudgifier	34
1.3.1.1. Displaying Documents	34
1.3.1.2. Effacing Documents	36
1.3.1.2.1. Concealment	41
1.3.1.2.2. Obfuscation	41
1.3.1.3. Generated Scores	42
1.3.1.3.1. Practice Score	45
1.3.1.3.2. Performance Score	46
1.3.2. Feelings of Awkwardness	46
1.3.2.1. Time and Temporalities	46
1.3.2.2. Familiarization Strategies	49
1.3.2.3. Encountering Moments of Awkwardness in Carl Rosman’s Performance of Tenuous Awkwardness	53
1.3.2.4. Presentation and Future Development of Scores	54
2. Reflected	59
2.1. Introduction	59
2.2. Two Experiences	59
2.2.1. November 26, 2014	59
2.2.2. April 30, 2012	63
2.2.3. Development of Experiences	70
2.3. Development and Documentation Processes	72
2.3.1. Development and Documentation of <i>Not Natural</i>	72
2.3.2. Development and Documentation of <i>[HoldingOn]</i>	72
2.3.3. Development and Documentation of <i>BUZZED</i>	72

(2.3.1. Development and Documentation of <i>Not Natural</i>)	73
(2.3.2. Development and Documentation of <i>]HoldingOn[</i>)	78
(2.3.3. Development and Documentation of <i>BUZZED</i>)	80
2.4. Reading Reflections	83
2.4.1. Video Scores	83
2.4.1.1. Filling in	83
2.4.1.2. Seeing and Body Listening.....	85
2.4.1.3. Feeling Video Heartbeats in <i>]HoldingOn[</i>	87
2.4.2. Audio Scores	91
2.4.2.1. Indexical Sounds of Physicality	91
2.4.2.2. Multiparametric Virtuosity	92
2.4.3. Bespoke Abstractions.....	94
3. Being.....	99
3.1. Introduction.....	99
3.2. Further Application of Score Reading Techniques.....	99
3.2.1. Faces Map Terrains of Listening	100
3.3.1. Breathing Ears.....	105
3.3. Human(s) Being Scores	107
3.3.1. [<i>factory</i>] an expanding situation.....	107
3.3.1.1. Score and/as Form in <i>[factory]</i>	111
3.3.2. <i>a kind of nostalgia</i>	113
3.3.2.1. Observing Castro Magaš as Initial Document	115
3.3.2.2. Reading and Engaging with the Initial Document: or, Development of <i>Nostalgia</i>	120
3.3.2.2.1. Instant Recall (Playing by Heart)	121
3.3.2.2.2. Composing my Body as Secondary Document	122
3.3.2.3. An Annotated Tertiary Document and Multiple Forms of the Document	124
4. Conclusions	128
4.1. Introduction.....	128
4.2. Effacing.....	129
4.3. Reflecting.....	130
4.4. Being	131
4.5. Future Inquiries.....	133
Bibliography.....	136
Articles, Books, Dissertations, Theses	136
Art, Media	141

A Note on the Portfolio, Figures, and Examples

This commentary should be read alongside a collection of electronic documents correspondent to the portfolio, figures, and examples references herein. The portfolio, figures, and examples are presented in three folders: Portfolio, Figures, and Examples.

Portfolio

The “Portfolio” folder contains documentation of my artistic work during this research period. This includes scores; performance and program notes; sonic and visual recordings of performances, compositions, and improvisations; programs and applications; sketches; and other miscellany related to each piece of work therein. When organized alphabetically by name, the folder structure mirrors the portfolio list.

Figures

The “Figures” folder contains png files for every figure embedded herein. They are presented in the order that they are introduced in the commentary, and grouped into “Chapter” folders.

Examples

The “Examples” folder contains files that correspond to “e.g.” references herein. The correspondent file indicates the example number, a description of the example, and the page where that example appears in the commentary.

For example: An indication of “e.g. 1” in the commentary directs the reader to “eg 1 - Description - (Page).format” in the “Examples” folder.

In some instances, additional files further contextualize examples. Some “Example” files appear in duplicate at the appropriate locations in the “Portfolio” folder.

N.B. The electronic documents correspondent to this thesis should be made clearly and easily accessible alongside the commentary as either a downloadable .zip folder or several individual files and folders.

In instances where the accompanying electronic documents have not been made clearly and easily accessible, please contact the author for access by writing directly to:

michaelbaldwin21@gmail.com.

List of Portfolio, Figures, and Examples

****ReadMe**

Examples

- Chapter 1 – Examples 1-9
- Chapter 2 – Examples 10-40
- Chapter 3 – Examples 41-47

Figures

- Chapter 0 – Figures 1-3
- Chapter 1 – Figures 4-21
- Chapter 2 – Figures 22-29
- Chapter 3 – Figures 30-35

Portfolio

Composition Projects

- 'composition' [open to interpretation] (2013)
- ||s[t]i||[ln]e[ss](e)n|| (2014)
- ||trouble letting go|| –]HoldingOn[– 4 Echoes: whistle, whisper, gasp, silence (2016)
- a kind of nostalgia (2014)
- a tenuous/tentative step towards performative awkwardness/clumsiness (2012-13)
- BUZZED (2014-15) / Experiments in Telepathy (2014-)
- Composition with the Sound of Its Own Découpage (2015)
- i'm too young to be tired of titles – loosely based on 'Having Never Written a Note for Percussion' and some other tune that I can't remember now (2013)
- misdirection (2013) / magic (2015)
- Strike – Object – Implement (2013)
- this is about much more than hearing [later renamed still singing limbs] (2014)
- this is not natural (2013-14)
- this is not natural [transfigured] (2014)
- To: Charlie Sdraulig & Joe Kudirka / From: Michael Baldwin (2013)
- urtext (2014-15)
- whistles whittle (2013)
- With a lover #1 (2014)

Exploratory Improvisations

- 3 early morning improvisations
- Keith Jarrett's Influence
- Sticky Singing

Performance Projects

- [factory] (Nickel 2014)
- few (Sdraulig 2013)
- No sweeter sound than my own name (Flanagan 2015)

Portfolio

Composition Projects

'composition' [open to interpretation] (2013)

For: unspecified performer(s); verbal, page-based score; unspecified duration

- Unperformed

||s[t]il||n||e[ss](e)n|| (2014)

For: unspecified performer(s); verbal, page-based score; unspecified duration

- June 2, 2016: Charlie Sdraulig + Friends, Frank Ogawa Plaza; Oakland, California, USA; *Artists Live Here*

||:trouble letting go:|| –]HoldingOn[– 4 Echoes: whistle, whisper, gasp, silence (2016)

For: solo violinist and two object performers; verbal and graphic page-based scores, and video score; 8'20"

- May 5, 2016: Alex Nikiporenko, Nicholas Peters, Ruben Zilberstein; St. James Parish Church; Islington, London, UK; *840 Series: New Music for Violin and Objects*
- September 12, 2016: Alex Nikiporenko, Nicholas Peters, Ruben Zilberstein; Vivid Projects; Birmingham, UK; *840 Series: New Music for Violin and Objects*
- September 25, 2016: Alex Nikiporenko, Nicholas Peters, Ruben Zilberstein; The International Anthony Burgess Centre; Manchester, UK; *840 Series: New Music for Violin and Objects*

a kind of nostalgia (2014)

For: two performers with guitars; devised living score; flexible duration

- March 17, 2014: Michael Baldwin and Diego Castro Magaš, St. Paul's Hall, The University of Huddersfield; Huddersfield, UK
- June 21, 2014: Michael Baldwin and Diego Castro Magaš, The University of Durham; Durham, UK; *DurhamKLANG14*

a tenuous/tentative step towards performative awkwardness/clumsiness (2012-13)

For: solo vocalist; digital application score; 12'

- April 15, 2013: Carl Rosman, St. Paul's Hall, The University of Huddersfield; Huddersfield, UK

BUZZED (2014-15);

part of larger ongoing project *Experiments in Telepathy* (2014-)

For: solo horn; audio score; 7'

- December 15, 2015: Samuel Stoll, Hochschule für Musik und Theater Leipzig; Leipzig, Germany; *Negotiating the Absolute Location of Buoyancy*
- January 9, 2016: Samuel Stoll, Hundred Years Gallery; Hoxton, London, UK; *WEISSLICH 5*
- February 20, 2016: Samuel Stoll, Nexus Art Café; Manchester, UK; *BUZZED*

Composition with the Sound of Its Own Découpage (2015)

For: solo toy piano and audio+video playback; paper-based score; 10'

- September 26, 2015: Eric Gottlieb, Audiotheque; Miami, Florida, USA; ROCK, PAPER, SCISSORS
- November 7, 2015: Eric Gottlieb; Miami, Florida, USA; *FEASt Festival*

i'm too young to be tired of titles – loosely based on 'Having Never Written a Note for Percussion' and some other tune that I can't remember now (2013)

For: solo percussionist; page-based score; 3'

- Unperformed

misdirection (2013);

revised and renamed *magic* (2015)

For: a vocalist and a percussionist; audio score; 2'

- February 12, 2015: Juliet Frasier and Maxime Echardour, St. Paul's Hall, The University of Huddersfield; Huddersfield, UK

Strike — Object — Implement (2013)

For: solo striker with objects and implements; verbal, page-based score; indeterminate duration

- Unperformed

this it about much more than hearing (2014);

revised and renamed *still singing limbs* (2014)

For: five trombonists with musical bodies; paper-based scores and picture scores; 10'

- June 19, 2014: les trombones de bale [Jon Roskilly, Juna Winston, Kevin Austin, Mike Svoboda, Stephen Menotti]; Unternehmen Mitte; Basel, Switzerland; *to hell with paper clips*
- June 19, 2014: les trombones de bale, Spielhalle Musikerwohnhaus; Basel, Switzerland; *to hell with paper clips*

this is not natural (2013-14)

For: hornist, pianist, and double bassist; video scores, 10'

- March 24, 2014: Discord Workshop [Corey Klein, Pieter Lenaerts, Tomoko Honda]; St. Paul's Hall, The University of Huddersfield; Huddersfield, UK
- March 25, 2014: Discord Workshop, Clothworkers Centenary Hall, The University of Leeds; Leeds, UK
- April 17, 2014: Discord Workshop, MIRY Concert Hall; Ghent, Belgium

this is not natural [transfiguration] (2014)

For: three movers with a horn, piano, and double bass; residual documentation from *this is not natural*, 12'

- July 28–29 2014: Devised in workshop with Franc Chamberlain, Hilary Elliott, and Eilon Morris; The University of Huddersfield; Huddersfield, UK

To: Charlie Sdraulig & Joe Kudirka / From: Michael Baldwin (2013)

For: two instigators, an amplifier, and a quarter-inch jack; verbal page-based score; 1h

- Unperformed

urtext (2014-15)

For: solo listener and vocalist, with two audio recordings of past performances; audio score; 7'

- February 7, 2015: Michael Baldwin, CoffeeKabin; Huddersfield, UK; *Bacon Jam*
- February 14, 2015: Michael Baldwin, Hundred Years Gallery; Hoxton, London, UK; *WEISSLICH 2*
- February 28, 2015: Michael Baldwin, The Island; Bristol, UK; *A + E Happenings*

whistles whittle (2013)

For: two whistlers; page-based score; variable duration

- May 3, 2014: Michael Baldwin and David Pocknee, Hundred Years Gallery; Hoxton, London, UK; *WEISSLICH 1*
- May 9, 2014: Michael Baldwin and David Pocknee, Coffeevolution; Huddersfield, UK; *Whistles go Woo*

With a lover #1 (2014)

For: two listening lovers; verbal, page-based score; indeterminate duration

- Unperformed

Exploratory Improvisations

3 Early Morning Improvisations (2015)

a set of three vocal and body improvisations made and used to think through the composition process of *BUZZED* Recordings include: *buzzing* (duration: 6'14"), *early morning séance ... wet* (duration: 8'31"), and *tremble* (duration: 2'09"); recorded in Huddersfield, UK

Keith Jarrett's Influence [1] (2015)

involves me moving in slow motion on and around a piano, made inspired by Jairo Moreno's (1999) article "Body'n'Soul?': Voice and Movement in Keith Jarrett's Pianism"; 13'43"

- 2015: Michael Baldwin, Creative Arts Building, The University of Huddersfield; Huddersfield, UK

Sticky Singing (2015)

involves me emulating the sound of a radically time stretched audio recording of me singing the traditional song "Michael Row the Boat Ashore"; 7'37"

Performance Projects

All performances given by me.

few (Charlie Sdraulig 2013)

For: solo listening vocalist in an environment, verbal, page-based score; variable duration

- February 6, 2015: Corby Street; Huddersfield, UK; *The Cellar Concerts*
- May 29 2015: London, UK; *Bastard Assignments: At Your Place*

[factory] (Luke Nickel 2014)

For: situated interactions with a living score (Mira Benjamin); unspecified duration

- February 6 2015: Corby Street; Huddersfield, UK; *The Cellar Concerts*
- July 4, 2015: Hundred Years Gallery; Hoxton, London, UK; *WEISSLICH 3*

No sweeter sound than my own name (Beavan Flanagan 2015)

For: solo vocalist with realtime electronic processing, audio score, 19'

- October 24, 2015: Coventry, UK; *INTIME 2015*
- October 28, 2015: Birmingham University; Birmingham, UK
- October 31, 2015: Hundred Years Gallery, Hoxton, London, UK; *WEISSLICH 4*
- November 26, 2015: CoffeeKabin; Huddersfield, UK; *HCMFOFF: Concert of Rejects*
- February 20, 2016: Nexus Art Café; Manchester, UK; *BUZZED*

Table of Figures

Figure 1: Photographic documentation of <i>Ephemera 1/2/2.2 [!] 3.1-3.3 —</i>	2
Figure 2: Photographic documentation of <i>Ephemera 6 – window shopping</i>	2
Figure 3: Photographic documentation of <i>Ephemera #8</i>	2
Figure 4: Still frame of video version of David Bird's <i>Forgery #24</i>	25
Figure 5: Cutting staff lines.....	26
Figure 6: Cutting and displacing notation	27
Figure 7: Cutting notation on fabric	28
Figure 8: Cutting and folding staff lines	28
Figure 9: Cutting out noteheads	28
Figure 10: Experimenting with cutting instructions on dollar bill; front.....	29
Figure 11: Experimenting with cutting instructions on dollar bill; back	29
Figure 12: Cutting out noteheads	30
Figure 13: Result of cutting out noteheads and barlines	31
Figure 14: Excerpt of secondary score (interpreter's score) for <i>Découpage</i>	32
Figure 15: Panel A1; transcription of "Das dunkle Herz"	37
Figure 16: Panel B1; transcription of "Missing"	38
Figure 17: Panel A3; rhythm and pitch varied transcription of "Das dunkle Herz"	39
Figure 18: Panel B3; rhythm and pitch varied transcription of "Missing"	40
Figure 19: "Metric" tab of Ensmudgifier	43
Figure 20: "Smudge" tab in Ensmudgifier.....	44
Figure 21: Internet presentation of Louis d'Heudieres's <i>My Favourite Piece</i>	52
Figure 22: Measures 57–58 in "Voice 1" of Aaron Cassidy's <i>A painter of figures in rooms</i> ..	65
Figure 23: Diary entry on April 30, 2012 from EXAUDI/Cassidy rehearsal	66
Figure 24: Opening measures of Neil Luck's <i>CLUB</i>	67
Figure 25: Voice part from version of Timothy Cape's <i>Favourite Bits</i>	68
Figure 26: "Present" and "Future" images in Trombone 1's photo score for <i>Still Singing</i> <i>Limbs</i>	69
Figure 27: Notated score from <i>still singing limbs</i>	71
Figure 28: Graphic element of video score for <i>]HoldingOn[</i>	79
Figure 29: Working with <i>Improvisation Emulation Audio</i>	82
Figure 30: Diagram of elements involved in Carolyn Chen's <i>Adagio</i>	102
Figure 31: Excerpt of the score for Carolyn Chen's <i>Adagio</i>	103
Figure 32: Mirrored staging of <i>Nostalgia</i>	114
Figure 33: initial observations of Castro Magaš during performance; page one	116
Figure 34: Initial observations of Castro Magaš during performance; page two	117
Figure 35: Initial observations of Castro Magaš during performance; page three.....	118

Table of Examples

Example 1: Convolution in <i>Découpage</i>	30
Example 2: Documentation of <i>Découpage</i> premiere	32
Example 3: Concealment and obfuscation of notation in <i>Tenuous Awkwardness</i>	36
Example 4: One instance of <i>Tenuous Awkwardness</i>	45
Example 5: One instance of <i>Tenuous Awkwardness</i> performance score running	45
Example 6: “Blackouts” in score for <i>Tenuous Awkwardness</i>	53
Example 7: Excerpt from premiere of <i>Tenuous Awkwardness</i>	53
Example 8: Extreme erasure in score for <i>Tenuous Awkwardness</i>	54
Example 9: Excerpt from premiere of <i>Tenuous Awkwardness</i>	54
Example 10: Performance of <i>urtext</i>	63
Example 11: Performance of <i>Limbs</i>	70
Example 12: Horn time stretched	75
Example 13: Double bass time stretched	75
Example 14: Piano time stretched.....	75
Example 15: Choreographic Prototype.....	75
Example 16: Astonished Choreography	75
Example 17: Horn video score	76
Example 18: Double bass video score	76
Example 19: Piano video score	76
Example 20: Zilberstein video 1	78
Example 21: Zilberstein video 2	78
Example 22: Zilberstein video 3	78
Example 23: Video score for <i>[HoldingOn]</i>	79
Example 24: Notes for reading Figure 28.....	79
Example 25: Vocal Improvisation Audio	80
Example 26: Improvisation Emulation Audio	80
Example 27: Some exchanges between Stoll and Baldwin.....	80
Example 28: Breathing	80
Example 29: Buzzing.....	80
Example 30: Growling	80
Example 31: Sibilants and plosives	80
Example 32: Singing.....	80
Example 33: Squeaking.....	80
Example 34: Whistling.....	80
Example 35: Audio score for <i>BUZZED</i>	81
Example 36: Premiere of <i>Not Natural</i>	83
Example 37: Devised version of <i>Not Natural [transfiguration]</i>	85
Example 38: <i>Sticky Singing</i>	86
Example 39: Performance of <i>Sweeter Sound</i>	93
Example 40: Video documentation and “score follower” for <i>Not Natural</i>	96
Example 41: Second performance of <i>[factory]</i>	112
Example 42: Castro Magaš playing Sor	122
Example 43: Practice video for <i>Nostalgia</i>	123
Example 44: Excerpts from <i>Whistles Whittle</i>	124
Example 45: Keith Jarrett’s Influence	124
Example 46: Annotated performance of <i>Nostalgia</i>	124
Example 47: Performance of <i>Nostalgia</i> by Goepfert and Winston	126

Acknowledgments

In alphabetical order, I would like to acknowledge the following people, without whom this thesis would have never materialized:

Aaron Cassidy, Aaron Einbond, Aida Ahmad, Alex Grimes, Alex Harker, Alex Lough, Alex Nikiporenko, Andy Ingamells, Angela Guyton

Beavan Flanagan, Braxton Sherouse

Carl Rosman, Cassandra Miller, Charlie Sdraulig, Chikako Morishita, Corey Klein

Daniel Portelli, Daniela Amortegui, David Pocknee, Diego Castro Magaš

Eilon Morris, Eleanor Cully, Elo Masing, Eric Gottlieb

Franc Chamberlain, Frank Peters

Hilary Elliott

Ilze Ikse

John Roskilly, Jorge Gomez Abrante, Juliet Frasier, Juna Winston

Kevin Austin

Lawrence Dunn, Lee Chie Tsang, Liza Lim, Louis d'Heudieres, Luke Nickel, Luke Reed

Marc Codina, Maxime Echardour, Mike Svoboda, Mira Benjamin

Nicholas Peters

Peter Ablinger, Peter Lenaerts

Rebecca Baldwin, Robert Blatt, Rodrigo Constanzo, Ruben Zilberstein

Samuel Stoll, Stephen Menotti

Tim Rutherford-Johnson, Tomoko Honda

In memory of Mary Elizabeth Baker
... milk and honey on the other side ...

0. Introduction

Documents and/of/as Musicking Bodies

0.1. Background

Immediately before this research project I conducted research along two strands: one focused on the form of scores and the other focused on the signifying potential of notation (Baldwin 2012).

The first strand examined issues of documenting scores from the series *S[c/h]attered Shards of Memory: ephemera 1-n* (2012; hereafter *Shards*). Scores (also referred to as ephemera) were one-of-a-kind, material-specific, and bespoke objects (figs 1–3) inscribed with musical notation, made to be susceptible to material effacement—either through care of handling, or following instructions to partially or completely ruin an ephemeron during performance—and which served a social function of correspondence between recipients and me. Issues discussed in this strand emerged from dissonances between the esthetic value the series placed on one-of-a-kindness, eventual disappearance, and personal (private) correspondence, and strategies of photographically documenting these scores—which opened the potential for duplication, concretization and fetishization, and ethical compromise of correspondences—in order to, in part, satisfy institutional requirements of submitting evidence of work for evaluation (Nimkulrat 2007; Nelson 2013).

Out of these dissonances, the formal difference between an original score and its photographically documented remains became a primary concern. The material form of the original score (paper, wood, ink, lamination sheets, etc.) is an essential and constitutive element of performative engagement. Each ephemeron results from a specific improvised, performed, and physical instance of notating/composing with



Figure 1: Photographic documentation of *Ephemer 1/2/2.2 [!] 3.1-3.3 | —*

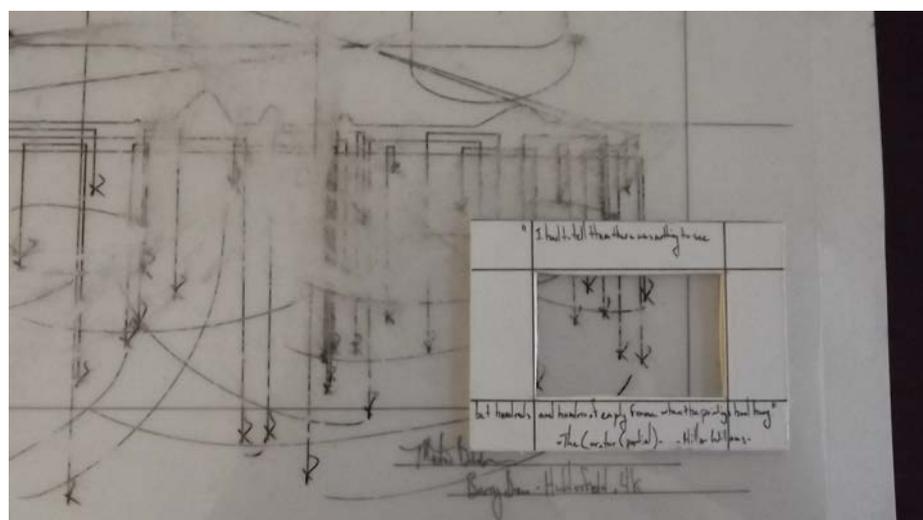


Figure 2: Photographic documentation of *Ephemer 6 – window shopping*

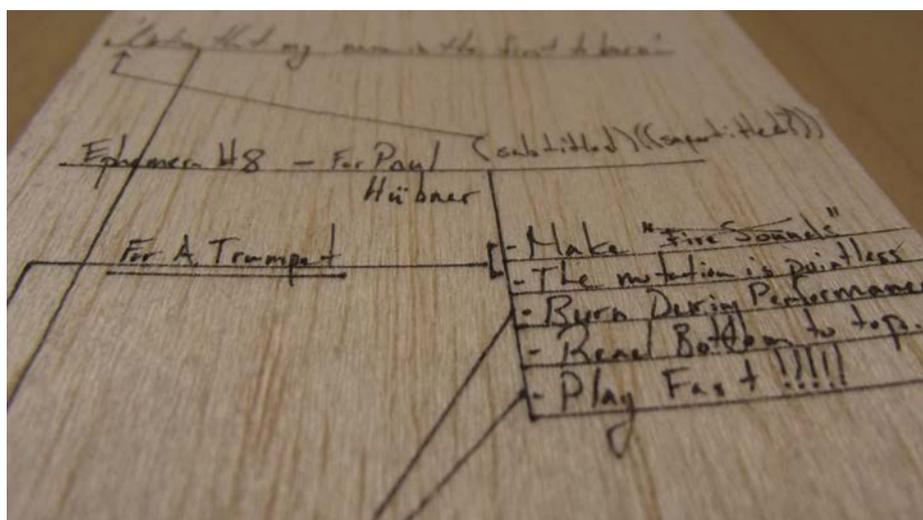


Figure 3: Photographic documentation of *Ephemer #8*

certain haptic materials, while a performed realization involves directly and physically un- or de-composing/notating those materials (rubbing ink off lamination sheets, burning a wooden plank, etc.). Photographically documenting a score changes its form—transforming it into a digital file displayed on a computer screen or printed onto some other materials. The form of the (documented) score changes the possible manipulations of the object and thus alters performance protocols. Put succinctly: documentation, as a process, has the capacity to materialize, *to matter*.

The second strand of research focused on ways that notation signifies and conditions intellectual engagements with scores. In particular, I examined the potential for notation to have psychological and affective effects on performers. To this end, I designed dense, contradictory, and labyrinthine notational relationships that pushed the boundaries of sheet-music inscribed with visually representative typographic notation. These systems foregrounded the always-impossible-to-reconcile fidelitous gap between intention (manifest as notation) and realization (performance), thus situating musicians in reading situations/engagements where realtime compromise becomes necessary and which require extreme amounts of psychological concentration and effort. This interior intellectual engagement of reading a score's notation would sometimes subtly manifest exteriorly in the musicians' physical bodies and sounding results as articulated by unintentional and minuscule twitches of musculature, darting glances of the eyes scanning a score, and minor double takes or lapses of attention along otherwise steady flows of concentration. In other words, the musicians' performing bodies became sites where the significance of notation could manifest.

0.2. Current Research

My current research brings these two research strands together to consider the creative potentials produced by conceptualizing scores as documents.

During my PhD research, I expanded my documentation practice to deliberately and conscientiously video and audio record the development processes and realizations of composition and performance projects. Attuned to the transformational function of documentation and the *significance* of performing bodies, I started to pay attention to how I read formal differences between documented performances and performances (being documented or not) themselves.

For instance, when looking back at video documented performances I notice that my viewing is visually more analytic than when I experience live performances.¹ Because I am able to review a video many times—sometimes focusing for extended periods of time on particular isolated moments or muting the sound of the video—my viewing is more granular, objective, and to some degree disconnected from the

1. This is not to say that I did not approach live performance with an analytic approach. Among the ways of experiencing live performance of music I had thus far developed, one way was directly related to my interest in notation. For instance, whenever I experienced a musical performance, especially if I knew in advance that it was a performance of a fully notated piece of music, I would often find myself listening/looking through notation, or rather, imagining notation in realtime as it could or might correspond with what I sensed.

This phenomenon of being able to isolate and focus in on moments of a recorded document of performance is not exclusive to visual recordings. The reason that I emphasize visual recordings is because, given my interests in the physicality of performance, I was more likely to obsessively fixate on a particular passage in a visually recorded document rather than an audio recorded document. In fact, when I listened back to an audio recording of my work, I tended to listen to the entire performance. I speculate that there are two further reasons that contribute to my lack of fascination and captivation by certain moment in audio recordings:

1) I was not in the practice at the time of editing my audio recordings; and 2) I had not been responsible for audio recording until a later point during the PhD research. The way audio was recorded in a lot of my earlier work was at a distance, which is to say that I did not close-mike my recordings, an approach to audio recording that brings to the sonic foreground much more of the sound of physical engagement in performance than would otherwise be present in an audio recording.

activity being represented by the documentation. The recorded, formal nature of the documentation comes to the foreground in these moments: I engaged not so much with documentary evidence as a complete and irreversible past event, but rather a repeatable and isolated (yet constituent) representation of recorded data. This engagement with the documentation inflects how I experience live performance; it modulates my memory of original and future performances. In particular, with video I find myself attending to the visually miniscule and ancillary gestures of performance, further reinforcing my notion that bodies are capable of signifying musicality and notation.

This reflection on the formal differences of (documented) performance has compelled me to contemplate the full ramifications of musicologist Nicholas Cook's (2001) distinction between score-as-text and score-as-script. This distinction facilitates a change in the location and constituent elements of "musical work" (Goehr [1992] 2002). For Cook, to refer to a score as a text is to locate the musical meaning of the work solely in the score; performance in this case is an inefficient and unfortunately necessary means for disseminating authorial intention in absence of readers possessing the literate reading skills required to realize the work in their head.

By referring to the score as a script, Cook does not negate the notion that a score is a text, but rather expands it to place emphasis on performances of that text. Performances of a score become vitally important parts of the meaning of the musical work. That is, a score is understood to be incomplete as a musical work without recourse to experience of a performed realization of the text. In some sense, once the score-as-script has been performed—and especially if that performance

has been recorded—the score itself may retroactively become a document of that performance.

Many of the pieces I composed during my previous period of research made use of “prescriptive” (Seeger 1958), tablature, multiparametric, and “action-based” (Kojs 2011) notations. These notations imply a choreography of performance (Masing 2014) that, as texts, rely upon an experience of performance (documented or otherwise) to fully appreciate. Cook (2013, 50) advises against conceptualizing recordings of performances as a type of score or *ur-performance*.² Nevertheless, as suggested above, when reflecting on the documentation of performances, I read (hear and see) bodies as types of fixed, quasi-embodied notations. Foregoing Cook’s advice, I propose that these documents (notations and performing bodies) might be thought of as types of scores. These documents-as-scores are scores made and composed of documents that signify and condition intellectual reading/performance engagements.

0.3. Defining “Documents”

To better understand what this reconceptualization of the score might entail, it is useful to define the word document. This exercise in definition is intended to establish a springboard for discussing the dynamics of documents-as-scores, and is in no way intended as an absolute prescription for thinking about this topic.

Information science scholar Jean-Michel Salaün (2014) draws from a range of authors who propose definitions for the word “document” (Otlet 1934; Briet [1957] 2006; Ranganathan in Buckland 1997; Pédaque 2003) to arrive at the following generalized definition:

2. “Ur-performance” is an extension of the word “urtext.”

A document is a trace for the interpretation of a past event in accordance with a reading contract. In most cases, this trace has been recorded on an appropriate medium for easy physical handling, transport across space and preservation over time. (195)

The first sentence of Salaün's definition is in line with a three-dimensional categorization of documents proposed by a network of researchers who publish under the pseudonym Roger T. Pédauque. Their three categories are as follows:

The document as form: Under this heading, we [...] classify approaches that analyze the document as a material or immaterial object and which study its structure to better analyze, use or manipulate it.

The document as sign: The document is primarily perceived as meaningful and intentional. The document is thus indissociable from the subject in its context which constructs or reconstructs it and gives it meaning; at the same time, it is considered in a documentary system or knowledge system.

The document as medium: This dimension [...] raises the question of the document's status in social relations. The document is a trace, constructed or found, of a communication that exists outside space and time; at the same time, it is an element of identity systems and a vector of power. (Pédauque 2003, 3)

According to Pédauque, each category is a “dominant but not exclusive dimension [of a document],” and each dimension could be thought of as an “entry” that offers “a way of approaching the document, [...] from which the other dimensions will be found through developments, constrains, obstacles or limits which appear in the primary reasoning [of entry]” (ibid.). Each dimension also carries with it either an implicit or explicit “reading contract” (ibid., 24). This is to say that each approach towards a document is grounded in a functional agreement between reader—“a physical person, a group of people in different spaces and times and perhaps even a machine” (ibid., 12)—and document. In the case of *form*, there is an anthropological agreement (“promise” [Salaün 2014, 191]) that the document's format can communicate between producer and reader legibly-perceptible content; in the case of *sign*, there is an intellectual agreement that a document's content can be meaningfully understood or known by the reader; and in the case of *medium*, there is an agreement that the document will serve as a social relation to/for the reader.

Salaün's first sentence accounts for the form that a document takes (its trace), the ability to interpret documents (as significant and meaningful), and the application of that interpretation in relating to information of/from a past event as transmitted by the document. The second sentence of Salaün's (2014) definition accounts "for the essential feature of ordinary documents [text in the form of paper or digital files] that they are easily manipulable according to familiar protocols" (195). This conditional sentence is a reaction to the expansive definition of document proposed by documentalist Suzanne Briet ([1957] 2006):

any concrete or symbolic indexical sign [*indice*], preserved or recorded towards the end of representing, or reconstituting, or of proving a physical or intellectual phenomenon (10; original italics).

As information and library science scholar Ronald Day (2006) notes, Briet's definition

offers a vision [of documentation] beyond that of libraries and books, seeing in documentation an unlimited horizon of physical forms and aesthetic formats for documents and an unlimited horizon of techniques and technologies (and of "documentary agencies" employing these) in the service of multitudes of particular cultures. (v)

The ramifications of Briet's ([1957] 2006) definition are perhaps best articulated by the following contemplation of what a document may be:

Is a star a document? Is a pebble rolled by a torrent a document? Is a living animal a document? No. But the photographs and the catalogues of stars, the stones in a museum of mineralogy, and the animals that are cataloged and shown in a zoo, are documents. (10)

Briet goes on to expand the notion that a living animal cataloged in a zoo is a document, writing:

In our age of multiple and accelerated broadcasts, the least event, scientific or political, once it has been brought into public knowledge immediately becomes weighted down under a "veil of documents" (Raymond Bayer). We admire the documentary fertility of a simple originary fact: For example, an antelope of a new kind has been encountered in Africa by an explorer which has resulted in the capture of an individual that is then brought back to Europe for our Botanical Garden (Jardin des Plantes). A press release makes the event known by newspaper, by radio, and by newsreels. The discovery becomes the object of an announcement at the Academy of Sciences. A professor of the Museum mentions it in his lectures. The living animal is placed in a cage and cataloged (zoological garden). Once it is dead, it will be stuffed and preserved (in the Museum). It is loaned to an Exposition. It is played on a soundtrack at the cinema. Its voice is recorded on a record. The first monograph serves to establish part of a treatise with plates, then a specialized encyclopedia (zoological), then a general encyclopedia. The works are cataloged in a library, after having been

announced at publication (publisher catalogs and the French National Bibliography). The documents are recopied (drawings, watercolors, paintings, statues, photos, films, microfilms), then selected, analyzed, described, translated (documentary productions). The documents which relate to this event are the object of scientific sorting (fauna) and of ideological sorting (classification). Their ultimate conservation and utilization are determined by some general techniques and by sound methods for assembling the documents—methods which are studied in national associations and at international Congresses.

The cataloged antelope is an initial document and the other documents are secondary or derived. (ibid., 10–11)

By Salaün’s account, the expanded scope of initial documents afforded by Briet’s definition—which include “footprints, or cave paintings, for example” (Salaün 2012, 195)—are document-forms that are “not easily manipulable according to recognized protocols” (ibid.).

Salaün’s definition is a good starting point for discussing the complexities of documents. However, I would wish to modify it slightly to reflect the plurality of intersecting dimensions of a document, and to generalize the specific techniques of manipulating documents—that they can be easily “physical handled, transported across space and preserved over time”—to indicate simply that there are “recognized protocols” for manipulating document-forms (ibid.). My modified definition of a document would be thus: Documents are traces for the interpretation of past events in accordance with reading contracts. In most cases, these traces take forms that can be easily manipulated according to recognized protocols.

Although this definition does not account for the stubbornly inflexible initial documents that Salaün recounts, it does allow for the possibility of thinking of living animals (including humans) as being document-forms that, according to recognized protocols, can be more or less *easily* manipulated. In the context of this thesis I consider “musicking” (Small 1998) bodies as one such “initial document” (Briet [1957] 2006, 11) made possible by Briet’s definition and which in/as different document-forms and document-mediums may be compositionally manipulated to

alter how the document's intellectual significance is read.

0.4. Defining Musicking Bodies

Christopher Small coined the term "musicking" to denote the verb "to music." Small (1998) writes: "to music is to take part, in any capacity, in a musical performance, whether by performing, by listening, by rehearsing or practicing, by providing material for performance (what is called composing), or by dancing" (8). For Small, musicking allows a socially, physically, and culturally understood situation of making music, firmly places phenomenological experience at the center of its practice, and suggests an intersubjective comingling of listener, performer, and composer. Small's terminology opens up the interpretive/interactive capacity for musicians to take into account their phenomenological imbrication within the world and the subjectivity of their personhood.

In the field of music composition, there is much work that treats bodies as musically significant agents of meaning and compositionally accessible material. One only need look as recently as the May 2016 issue of *MusikTexte* to see that the role of the body is indeed central within current discourses. The issue collects together short essays written by composers in dialogue with Jennifer Walshe's (2016) text/term, "The New Discipline," where Walshe states that the term

functions as a way for me to connect compositions which have a wide range of disparate interests but all share the common concern of being rooted in the physical, theatrical and visual, as well as musical; pieces which often invoke the extra-musical, which activate the non-cochlear. In performance, these are works in which the ear, the eye and the brain are expected to be active and engaged. Works in which we understand that there are people on the stage, and that these people are/have bodies. (1)

Walshe makes an appeal to shift the focus of compositional discourse to the methodologies of making music. That is, to examine how composers make music in an age that has been witness to "MTV, the Internet, Beyonce [*sic*] ripping off Anne

Teresa De Keersmaeker, Stewart Lee, Girls, style blogs and yoga classes at Darmstadt, Mykki Blanco, the availability of cheap cameras and projectors, [and] *the supremacy of YouTube documentations over performances*" (ibid.; italics added). Furthermore, Walshe asserts the primacy of bodies by calling for composers to "finally [be] willing to accept that the bodies playing the music are part of the music, that they're present, they're valid and they inform our listening whether subconsciously or consciously" (ibid.).

My portfolio focuses on ways that Walshe's foregrounded bodies embody and reflect musical sensibilities, how they musick. Along these lines, I draw from performance scholar Diana Taylor's (2003) notation of "the repertoire" (19)—that histories of practice and knowledge significantly define bodily behavior—to emphasize the idea that musicking bodies are distinct from bodies in the abstract. This distinction is made on the basis that musicking bodies have been behaviorally conditioned, exposed to, and participant in musical modes of practice and knowledge that manifest gesturally, structurally, and mimetically. The musicking attributes of the bodies discussed herein become subject to processes of, and engagements with, documentation that subsequently constitute compositionally accessible material for the formation of new musicking sensibilities, activities, and work.

0.5. The Documentation of Musicking Bodies

Walshe's observation that YouTube documentations reigns supreme over performance marks a contemporary condition of some music in which recorded audiovisual appreciation is vital, and could be extended to include any other number of digital/Internet/network-based platforms for widely disseminating performance documentation. Building on Walter Ong's ([1984] 2002) notion of oral and literate

cultures, I suggest that this contemporary condition is a “culture of documentation.”

In *Orality and Literacy* Ong distinguishes between “primary orality, the orality of cultures untouched by literacy” (1) and “literate culture” (ibid.), cultures that are structured by the “technology of writing” (ibid., 39). Within and emergent from literate culture is the “electronic age” (ibid., 2), which Ong claims “is also an age of secondary orality, the orality of telephones, radio, and television, which depends on writing and print for its existence” (2). It is important to note that, for Ong, this secondary orality is an orality that is irrevocably affected by the changes that literate culture effected on consciousness. This is to say that while the idea of an oral communication being a document in a primary culture is inconceivable; the development of a literate culture and the arrival of a second orality offers the ability to think of channels of oral communication today as being types of document-forms/mediums.

However, beyond the advent of recording technology, what makes this documentary dimension of culture unique? Day (2014) writes in *Indexing It All* that, perhaps due to the “increasing recursivity, scale, and ubiquity in sociotechnical infrastructures, [and the result that] algorithms and indexes have become both more opaque and more mobile” (4), individuals and groups have increasingly transitioned towards “being represented as (and communicating through) forms of information, documentation, and data” (ibid.). Social media are a primary example of the type of networking to which Day is referring—they are media for/of documents (social communication, behaviors, relationships, etcetera). Indeed, this notion of individuals being represented as information, documentation, and/or data through social networking sites has been taken up by Olivier Ertzscheid (2009), who asserts that

“human beings are like any other documents” (1). This notion that human beings are documents themselves fits within Briet’s expansive conception of documents, and takes on interesting application in the context of music when practically working through the conceptual implications of documents-as-scores.

In relation to the musicking body’s imbrication in a culture of documentation that records and widely disseminates past performances, cultural and performance studies scholar Phillip Auslander (2006) is wise to stress that it is not the document’s relationship to its originating event that is most interesting, but rather the experiential relationship between document and persons/environments (9). By coming into contact with an interlocutor, documents perpetually (re)perform; that is, documents are phenomenologically relational to their circumstance. Encounters with documents are circumstances of/for performance.³

A great deal of creative work being done and made by practitioners invested in the bodies of musicians is already being documented and shared through networked platforms of/for documents. However, I sense that there is more work to be done by compositionally thinking through *why* performance is documented and *what is done with* those documents. At the most basic level, it would seem as though documentation is being chaotically practiced more as a public display of archival anxiety to protect and preserve (Derrida 1995)—a practice potentially exacerbated in current technologically mediated landscapes, which, taken together, has been referred to as a “digital dark age” (Kuny 1997)—than as a deliberate (let alone

3. This perspective on the functional use of documentation is in opposition to Peggy Phelan’s (1993) often cited (and now infamous) rejection of documentation:

Performance’s only life is in the present. Performance cannot be saved, recorded, documented, or otherwise participate in the circulation of representations *of* representations: once it does so it becomes something other than performance. [...] Performance [...] becomes itself through disappearance. (146; original italics)

compositionally considered) activity.

0.6. Objectives and Outline

My practice attempts to develop an approach to documentation that explores and experiments with ways that musicking bodies might engage with, relate to, and embody documentary remains. Through it, I propose, examine, and develop ways of thinking, performing, and practicing music composition in a culture of documentation.

Along these lines, the document-as-score in my practice has come to take many forms (each with different capacities for signifying musical information and being mediated in socially relational ways), including:

- paper and digital files either chirographically inscribed or encoded with typographic data
- audio and video file formats (.wav, .mov, etcetera) recorded with audio or video data of performed actions
- and human beings/persons in possession of specific recallable and reenactable intellectual and/or physical memories

As a composer, I am most interested in the signifying potential of these scores. As such, each chapter of this commentary frames selections from the portfolio around possible protocols for compositionally engaging with and manipulating (overlaying, dilating, expanding, situating, distorting, editing, isolating and/or recontextualizing) these score forms and the way that those manipulations alter how musicking bodies understand and relate to documents and/of/as themselves.

Chapter 1 starts from notation- and composer-oriented perspectives, examining how physical and digital formats are compositionally effaced to articulate facets of integrative destruction and awkwardness in music. Chapter 2 looks and listens for physical action through distended, incomplete, and overlaid reflections of audio and video recordings of performance. Chapter 3 examines approaches to

humans/persons that have become formally constitutive embodied documents whose verbal, physical, and musical memories are situated within performative reading contexts. The conclusion reviews my findings and speculates as to further areas of inquiry.

1. Effaced

Notations and Musicking Bodies

1.1. Integrative and Awkward Effacements

This chapter presents two case studies, each focusing on a composition project from the portfolio where the signifying content of the score (notation) serves as a stage upon which compositional manipulation is performed and recorded: *Composition with the Sound of Its Own Découpage* (2015; hereafter also *Découpage*) and *a tenuous/tentative step towards performative awkwardness* (2012; hereafter also *Tenuous Awkwardness*).

The first study examines how the documentation of a compositional production process that involves performing actions of cutting and defacing notation is carried out, and, by situating it within an expanded conception of Seth Kim-Cohen's (2009) notion of "retrospective composition" (49), becomes primary, integral, and transformative compositional material. The second study examines similar types of effacement, this time with respect to digital documents encoded with typographic representations of musical information. In this study, the musical and creative implications of constructing awkwardness between interpreter and score are examined through the mechanisms of Ensmudgifier, a bespoke document editing and score generating program that offers unique ways of working with portable document format (pdf) files by dynamically covering, erasing, and smudging notation.

In both cases, the performed compositional engagements with documents articulate the esthetic ambitions of each project (integrative destruction and awkwardness respectively), and thus affect how scores are read.

1.2. Case Study 1: Integrating Processes of Documentation of/as/and Production into *Composition with the Sound of Its Own Découpage*⁴

In the summer of 2015 the Miami-based new music collective, Inlets Ensemble, invited me and two other composers (Robert Blatt and David Pocknee) to write new pieces for their ROCK PAPER SCISSORS concert series.

The series comprised three concerts, each focused on using one type of ordinary, everyday object (rocks, paper, and scissors) as an instrument through which “sonic and conceptual strategies for creating music” (Rock Paper Scissors 2015) could be explored. The resulting pieces were given context by music from the “neo-avant-garde” (Foster 1994) that instrumentalized these everyday objects and work made in the last ten years that emerged out of the avant-garde lineage. My own creative process revolved around reconnecting with the characteristic qualities of scissors and resulted in a solo for toy piano and video + audio playback titled *Composition with the Sound of Its Own Découpage*.

Découpage takes a performative approach to the musicking activities of composition. In a gesture towards the historical context of the concert series, I draw from methodological principles and conceptual dimensions of Robert Morris’s *Box with the Sound of Its Own Making* (1961; hereafter *Box*) to guide the process of composition and to structure the piece. *Découpage* is premised on a desire to explore ways of compositionally integrating the destructive application of scissors. Charting a process of documenting my experimentations with scissors, this case study reflects on the destructive and conceptual dimensions of *Découpage* and

4. Large portions of this case study have been published on the Tempus Konnex website. See: Baldwin, Michael. 2016. “Retrospectively Arriving at Composition with the Sound of Its Own Découpage.” *Tempus Konnex*. tempus-konnex.com/spip.php?article249. The following text has been edited to fit within the context of this commentary.

elaborates on what Seth Kim-Cohen (2009) has termed “retrospective composition” (49).

1.2.1. Découpage

Yoko Ono's *Cut Piece* (1964) is an iconic piece of work to come out of the neo-avant-garde that uses scissors as a primary instrument. First performed by Ono in Japan in July 1964, *Cut Piece* situates the performer in a position of vulnerability through objectification of the performer's body. The score calls for a pair of scissors to be laid in front of a performer⁵ positioned on stage, and an invitation is made to members of the audience to one by one approach the motionless performer to remove and keep a piece of the performer's outfit. Although ostensibly destructive, many varied realizations of the piece by Ono and others attest to a rich and multivalent range of interpretations of the piece. Kevin Concannon's (2008) account of a performance given by Ono in September 2003 at Paris's Ranelagh Theatre draws attention to a realization that renders destruction as not only integral and constitutive, but indeed a culturally constructive facet of the work.

In the 2003 performance, Ono's intentions are instrumentalized, much like the pair of scissors, to express hopes for world peace. In addition to inviting audience members to come on stage and cut a piece of clothing from Ono's outfit, participants are encouraged to send their cut piece of fabric to a loved one as a sign of reconciliation considering "the political changes in the wake of 9/11" (Allen 2005, 211– 13). This gesture—regardless of any personal feelings I have about the efficacy of its politics—reveals one way in which “what remains” (Schneider 2001) of

5. A minor note: Although it has no bearing on my own work, I think that, because of the history of criticism accrued around the piece, it should be reiterated wherever possible that the score for *Cut Piece* does not specify that a person of any particular sex perform the piece.

a destructive act may be recast as constructive.

In addition to what remains, while working on *Découpage*, I have also taken into consideration the quality of the cutting itself—what David Banash has expressed in relation to collaging practices as the "excitement of the cut" (quoted in Poynor 2014). During the initial stages of my experimentations with scissors, I daily built up(on) a history of embodied practice/knowledge—what performance studies scholar Diana Taylor (2003) has termed "the repertoire" (19)—broadly in dialogue with ways in which scissors are used. In particular, I became interested in the gestures, movements, performances, and sounds linked to scissors. In practice, this meant spending time:

- cutting various objects (for a while, obsessively snipping taut rubber bands);
- placing scissors near each of my ears and listening to the sounds the blades made as I slowly and quickly rubbed them against each other (teasing out the delicacy of sounds produced by the instrument and heightening the intimacy of physical proximity);
- listening to close-miked recordings of scissors made by members of a community of people who attest to experiencing autonomous sensory meridian responses (ASMR) triggered by particular acoustic stimuli;
- watching videos of people working with scissors (becoming particularly mesmerized by the detailed precision required in certain crafting practices, especially "fussy cutting").⁶

1.2.2. Its Own Making

I have documented—through recordings and a residual collection of effaced materials—my development of this sonic, visual, and kinesthetic repertoire. Studying historical documents of performances derived my repertoire, and thus my own documents are traced outlines of the past—documents of "once-againness" (ibid.,

6. For an example of fussy cutting along with an extended introduction into the different kinds of scissors used specifically for the cutting technique, see the video "Scrapbooking Fussy Cutting Tutorial. Basic Beginner and Advanced" (xannero1 2014). Of especial interest is the pioneering work with cutout silhouettes done by Lotte Reiniger (2008) in the 1920's.

32). Gradually, this experimental process of building repertoires came to define my idea of the *work* constitutive of *Découpage*. Put differently, I became interested in finding an approach to the creative process that would bring all of these experiences into play in the final compositional output.

Composer and scholar Seth Kim-Cohen lays theoretical groundwork for such an approach in the book *In the Blink of an Ear*. Pointing⁷ to Robert Morris's *Box*, Kim-Cohen (2009) observes ways that a work "might organize its relationships to and between the process and product, the space of production versus the space of reception, and the time of making relative to the time of beholding" (47). Kim-Cohen proposes that this working methodology could be an example of "retrospective composition" (ibid., 49). Retrospective composition is an approach to composition in which "the 'score' for the sound material of the work is only available (constructible) after [a process of] performance/production" (ibid.). In other words, the score is made from the remains of (documented) performance.

1.2.2.1. the Sound of Its Own Making

Morris's *Box* consists of "a walnut box, nine and three-quarters inches in each dimension [... that] contains a small speaker that plays a three-hour audiotape recording of the sounds made as Morris constructed the box" (ibid., 45). As is characteristic of retrospective composition, the work is "simultaneously the product of a process, the documentation of that process, and a set of instructions for the replication of that process" (ibid., 49). The process in Morris's work is the construction of a box (activating the repertoire of carpentry), and the documentation of that process is an audiotaped recording of construction. However, what

7. Painter Al Held is alleged to have said "conceptual art is just pointing at things" (Sperlinger 2005).

constitutes the set of instructions for replicating the process that Morris went through in order to make *Box* is more complicated and warrants further discussion.

On the one hand, Kim-Cohen makes the argument that the instructions for replicating Morris's *Box* take the form of an immaterial, "unwritten score [...]" something like "Record the sound of building a walnut box and play the recording back from inside the box" (ibid., 49; emphasis added). On the other hand, Kim-Cohen acknowledges an idea that the audiotaped recording/document of construction could serve as a materially concrete score, stating that "a set of ears conditioned to the meaning of the sound of carpentry could conceivably reconstruct the box based on the instructions—the score—provided merely by the recorded sounds of its initial construction" (ibid., 50). Importantly, in this latter instance, there is a sense that the documentation could be performed—that it could be read or interpreted, almost as if a legible text. In either case, it would seem that in Kim-Cohen's model of retrospective composition, the score is constructible/constituted not only after an act of performance (be it material or immaterial), but its construction is also the *terminating point* of a piece-specific production process. Or, as Kim-Cohen has put it: "The score always arrives after the fact, to *dictate* the fact" (ibid., 49; italics added).

Kim-Cohen's conception of retrospective composition, especially as it relates to the construction process of Morris's *Box*, opened up ways for thinking about a constructive approach towards intelligibly rendering and integrating into a composition the destructive facets of my documented repertoire of embodied practices/knowledge. My documentation consisted of several close-miked audio recordings of scissor blades rubbing up against each other. Thinking about these

recordings, the model of retrospective composition put forward by Kim-Cohen and exemplified in *Box*'s method of construction, and using the title of *Box* as a conceptual catalyst for thinking about the construction process of composition, two questions came to the fore:

- If a box is the object produced out of Morris's production and contextually related to the field of sculpture, what might an analogous object of production be for a composer within the field of music composition?
- Might there be scope for using the audio recordings of scissor sounds in a way that plays a role in the creative process of producing a composer-oriented object, and integrally interacts with the documentation of that process in a way similar to Morris's *Box*?

1.2.2.2. Compositions with the Sounds of Their Own Notating

My first question was partially answered by studying John Cage's realization of *0'00"* (1962). Referring to it as another example of retrospective composition, Kim-Cohen brings *0'00"* into discussion as a piece in which the performance itself directly and immediately derives the score.

The score for *0'00"* reads: "In a situation with maximum amplification (no feedback), perform a disciplined action." [...] Cage wrote out the score by using a pen outfitted with a contact microphone, thereby turning the writing of the score into the performance, or the performance into the writing of the score. In either case, the score is nonexistent until its first performance is realized. (ibid., 55)

In relation to *Découpage*, two aspects of Cage's realization struck me as pertinent.

The first was the emphasis placed on everyday objects, here a pencil and paper.

This is evident in terms of not only instrumentation, but also the sonic amplification of those instruments. The second is the circumscription of a text score as an object of production relative to the field of music composition.⁸

As a conceptual thought experiment, I attempted to imagine a subtitle to Cage's realization of *0'00"* that could mirror the title of *Box*. Remaining faithful to what

8. Incidentally, Kim-Cohen's examples of retrospective composition always involve instructions for replication in which language is manifest as a verbal text score.

actually happened in Cage's realization of *0'00"*, the closest title I could conceive of was "Composing *and* the Sound of Notating," while the subtitle to the resultant score could be something like "Composition Made *Alongside* the Sound of Its Own Notating."

These revisionary plays on Morris's title allowed me to conceptualize activities of composition as acts of performance, and highlighted the sonic, visual, and material byproducts of a compositional musicking activity known as notating. More significantly, these imaginary titles revealed two different approaches to retrospective composition in terms of *endurance*. Unlike Morris's work, the object of *0'00"* (the text score) does not continue to (re)present the sounding evidence of its making (its notating) beyond the moment of realization. That is to say that the final score does not retrospectively integrate documented byproducts of production; the piece is composed *of*, and *alongside* (but not *with*) the compositional performance of production.

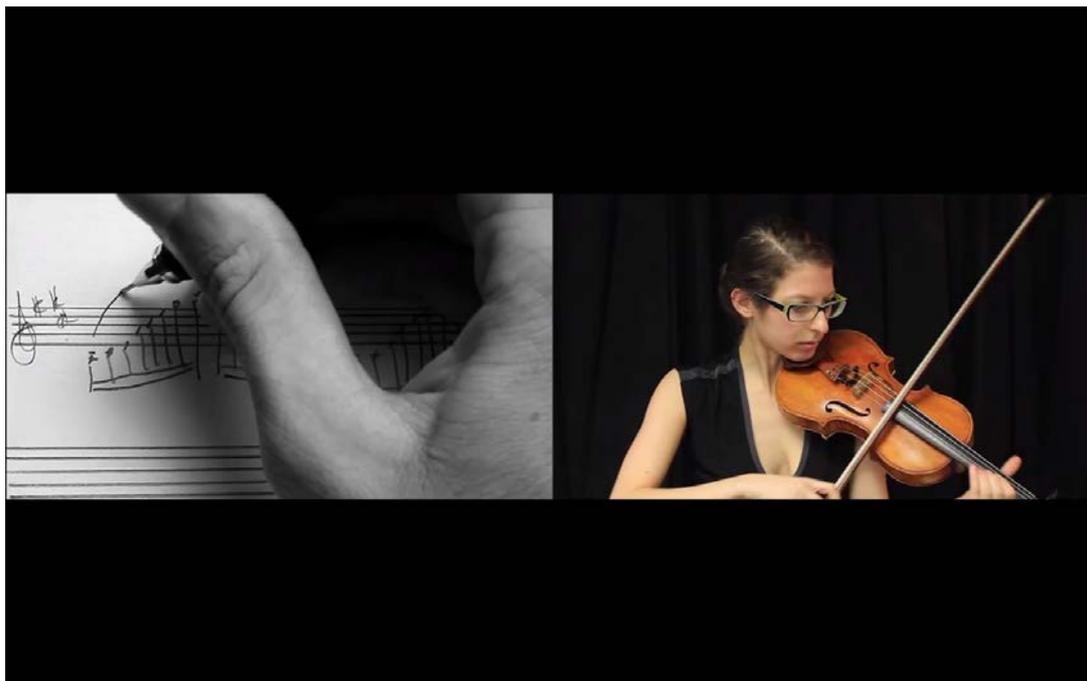
Although a process of production derived the material manifestations of both *0'00"* and *Box*, the history of process is not embedded in Cage's object of production. While the method of production in *0'00"* opened up a way for thinking about how notating might be understood as an embodied performance—a repertoire of experience drawn from traditions of composing—the question of how to produce a piece in which the history of a production process would remain embedded in, and retrospectively composed *with*, still persisted. What might a piece be like if it were (or could be) titled "Composition *with* the Sound of Its Own Notating"?

Examining David Bird's *forgery #24* (2013; hereafter *Forgery*) offered one vision of a piece that could be hypothetically titled "Composition with the Sound of Its Own

Notating.” *Forgery* is formed of two transcriptions—one visual and the other sonic—that are both derived from the final five bars of Niccolò Paganini’s virtuoso 24th *Caprice for Solo Violin no. 24* (circa 1805–1809). The visual transcription is a filmed performance of the composer copying by hand the final five bars of Paganini’s score onto paper with a pencil. This documentation of the action of notating, itself an iterative performance of performance documentation (a notated score), yields a derivative sonic component of rubbing and scratching sounds made by the pencil, which Bird (2013) has described as having a “virtuosic anatomy of its own.”⁹ The sonic transcription entails rendering the recorded sonic byproduct of the filmed documentation into a readable form of musical notation for violin.

The video version of the performance juxtaposes the filmed act of notating and a video recorded performance of the notation-via-sonic-transcription as realized by violinist Marina Kifferstein (fig. 4). By encapsulating the two forms of transcription in a single video, Bird’s work simultaneously presents an object of composition, implicitly and explicitly articulates histories of engagement with that object and the processes of composing, and evidences (performance) documentation’s inherently ambiguous function as simultaneously being *of*, *for*, and *in itself* performance. By substituting the inscriptive functions/byproducts of a pencil in relation to notation, as exemplified in both Bird and Cage, with the effacing and destructive functions of scissors, my own composition similarly attempts to present, and foreground though multiple incisions, the often-paradoxical processual complexity of compositional creation.

9. For another example of a piece that deals with similar issues (and, by coincidence, is focused on a closely related historical period in music) see Andy Ingamells’ *Composing music for 11 minutes dressed in 18th Century costume* (2015).



**Figure 4: Still frame of video version of David Bird's *Forgery #24*
Bird's hand on left, Kifferstein on right
Reproduced with permission of composer**

1.2.3. Composition with the Sound of Its Own *Découpage*

Working with titles in mind is often an important part of my creative process, and something that changes very often. Composer Laurie Tompkins remarks: "titles [...] are often references, which might get buried in the [creative] process" (as quoted in ddmmy 2016). In *Découpage*, rather than the title(s) being buried, the process of conceptualization drags the title to the surface. As a consequence of working through the imaginary titles I attributed to pieces by Bird and Cage, I eventually started referring to my piece as *Composition with the Sound of Its Own Découpage* (fig. 5). From Morris's title for *Box with the Sound of Its Own Making*, "Box" has been substituted with "Composition", and "Making" with "Découpage."

The word "Découpage" marks the repertoire of embodied practices/knowledge related to scissors that I called upon in the compositional process. Derived from the

French word *découper*, *découpage* literally means “the act of cutting out,”¹⁰ but also denotes the constructive and reintegrative “art of decorating surfaces by applying cutouts [...] and then coating with usually several layers of finish (as lacquer or varnish).”¹¹

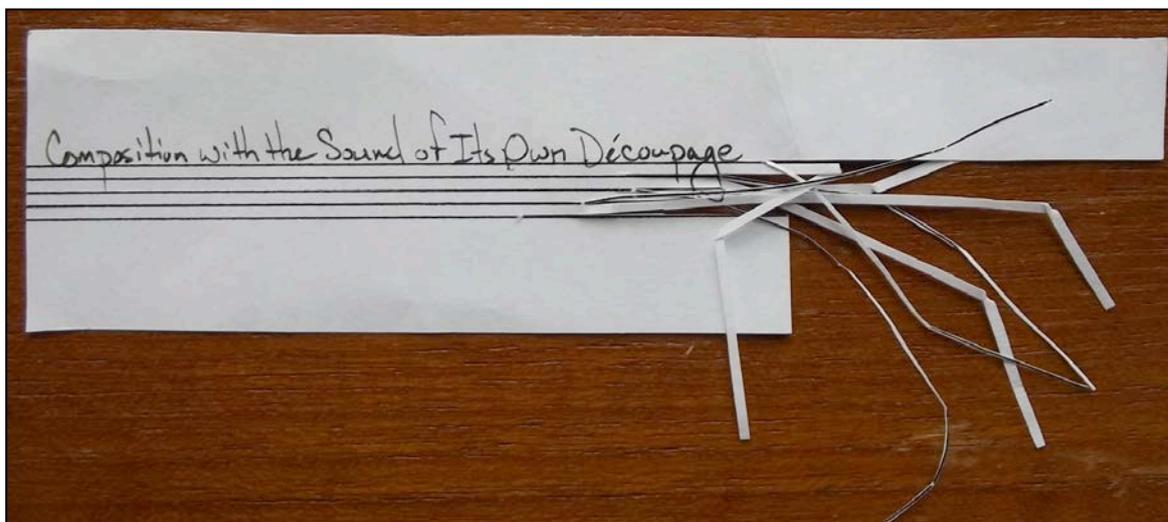


Figure 5: Cutting staff lines

“Composition” stands in as an object produced in the context of music composition, just as “Box” was an object produced in the context of sculpture. Using the word “Composition” as a substitution for “Box” turns out to be problematic. Whereas “Box” is clearly understood as an object, and an object alone, in sculptural contexts, “Composition” can be understood as both an (abstract) object and an activity. A more appropriate substitution for “Box” might have been “Score.” However, this realization was only made after the fact of completing *Découpage*, and is a perfect example of what I mean by a title being *dragged* to the surface; the title arrived, messy from the conceptual and linguistic games I was playing. Because of the semantic ambiguity introduced by the word “Composition,” *Découpage* does not

10. Online Etymology Dictionary. 2016. “decoupage.” www.etymonline.com/index.php?term=decoupage.

11. Merriam-Webster Online Dictionary. 2016. “Decoupage.” www.merriam-webster.com/dictionary/decoupage.

end up have the sort of conceptual *purity* exemplified by either Cage or Morris's work.

Nevertheless, having made these substitutions to the title, I proceeded to set my efforts on exploring the scope for using the documented repertoire of engagements with scissors (audio recordings and physical dexterity) in a way that integrally interacted with the creative processes and products of composition.

One of the ways that an interaction between processes and products of composition manifested in *Découpage* came about by engaging with notation in a performative way—similar to the mode of engagement found in Bird's work. I find ways of establishing connections between the act of cutting out and effacing notation, and the sounding result of the piece. The following photos (figs 6–11) show some examples from the experiments I conducted in cutting out notation:

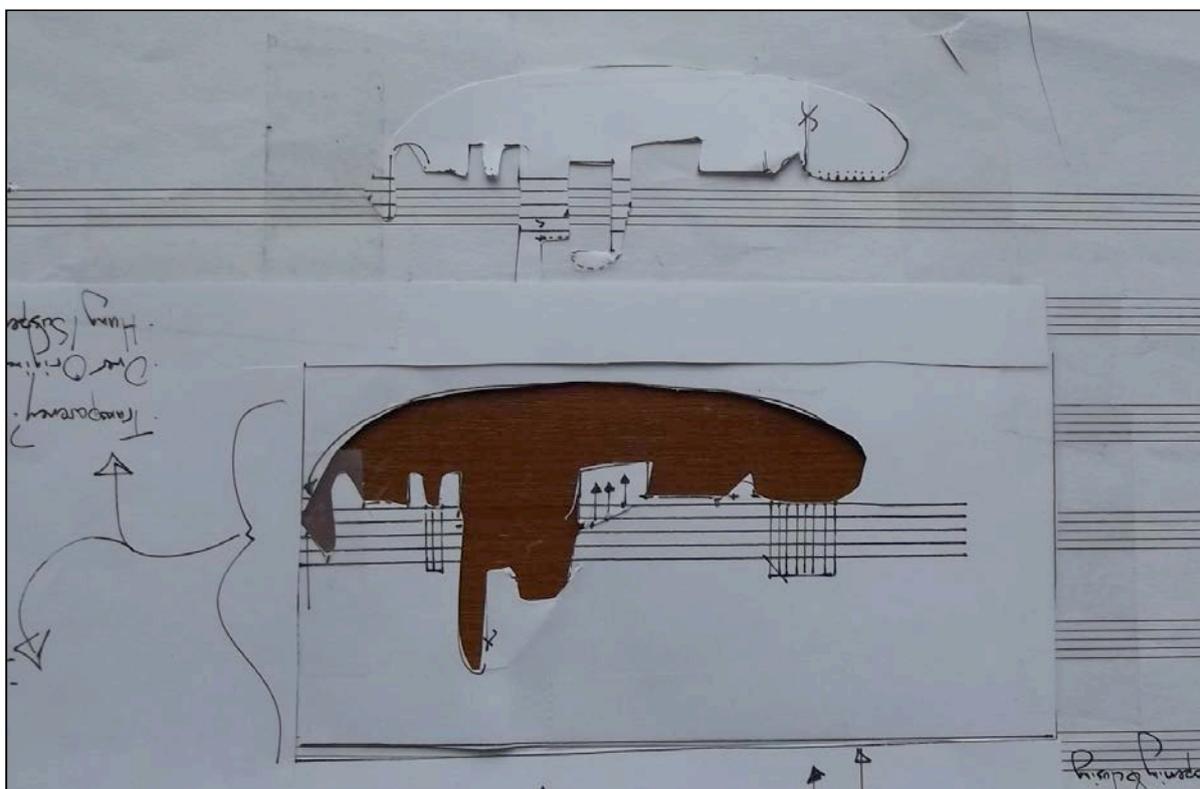


Figure 6: Cutting and displacing notation



Figure 7: Cutting notation on fabric

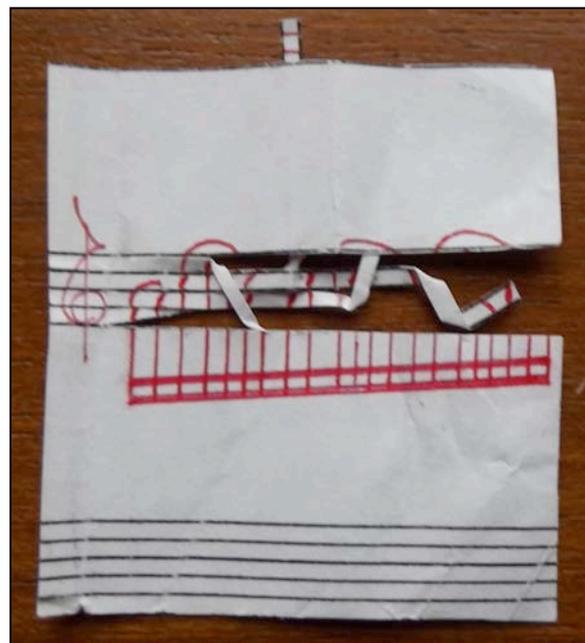


Figure 8: Cutting and folding staff lines

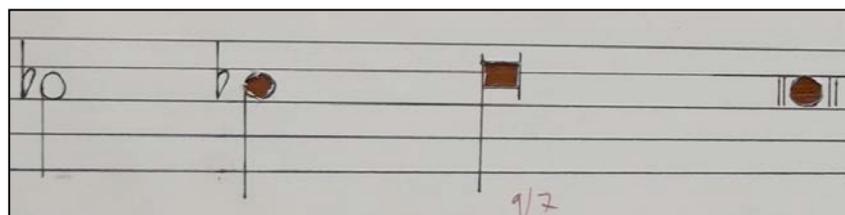


Figure 9: Cutting out noteheads



Figure 10: Experimenting with cutting instructions on dollar bill; front



Figure 11: Experimenting with cutting instructions on dollar bill; back

Thinking more about the implications of the title I set for myself, especially the word “with,” I realized that I could combine my audio recordings of scissors with the sounds of another instrument to give significance to the cutting out of notation (fig. 12). This led me to use an audio processing technique known as convolution.

Although most often used to simulate and model other real acoustic spaces, convolution gives the aural impression that the sound of one instrument (in this case,

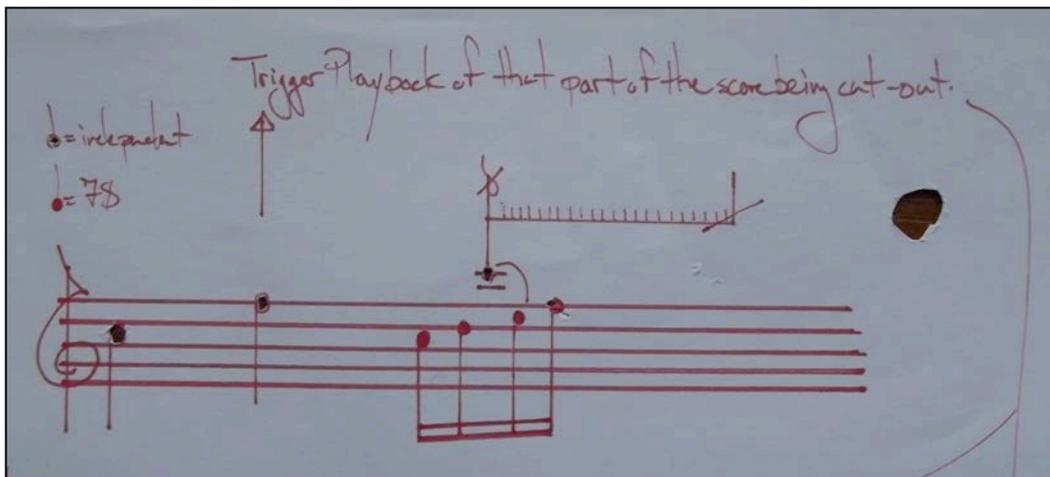


Figure 12: Cutting out noteheads

samples taken from toy pianos)¹² is positioned within the space of another impulse response (in this case the sound of scissors) by multiplying the two audio signals. In effect, the toy piano samples sound like they are *inside* the “aurally characteristic space” of scissors. Furthermore, by creating two tracks—one with the original scissor recordings unprocessed and the other with the toy piano samples and scissor sounds convolved—I can crossfade between the two to create the sonic illusion that the sound of the toy piano is being cut out by the sounds of the scissors. Watching and listening to an excerpted recording of the video + audio component of the piece makes this clear (e.g. 1).

The video demonstrates how I have visually/physically integrally interacted with my documented repertoire. Video recordings document a performance of incrementally cutting out pitches/noteheads (and the bars that contain them), beginning from the end of the notated score, and moving in reverse to the first two

12. Toy piano samples were taken from the “Extensible Toy Piano Project” audio archive (Toy Piano Audio Archive 2004). Whereas in Bird’s *forgery* #24 the use of the violin has obvious connections to the wooden material of the object used to transcribe Paganini’s notation and the originally intended performer of the notation being transcribed, the use of toy piano as an instrument in my piece is not as conceptually contained. Its use is more the byproduct of practical considerations of resources available to me for the concert series rather than anything else.

itches (fig. 13).¹³ The video file is subsequently cut into sections, each defined by one bar of the score. These cut up remains of the video documentation are interspersed throughout the final piece, and, perhaps akin to a logic of distortion, recur as “truncated echoes” (Schwartz 2011, 52). Within each “section,” the video is further cut up (rapidly and frequently skipping several frames at a time) and played back at variable speeds. Only some of this video is paired with audio convolved recordings.

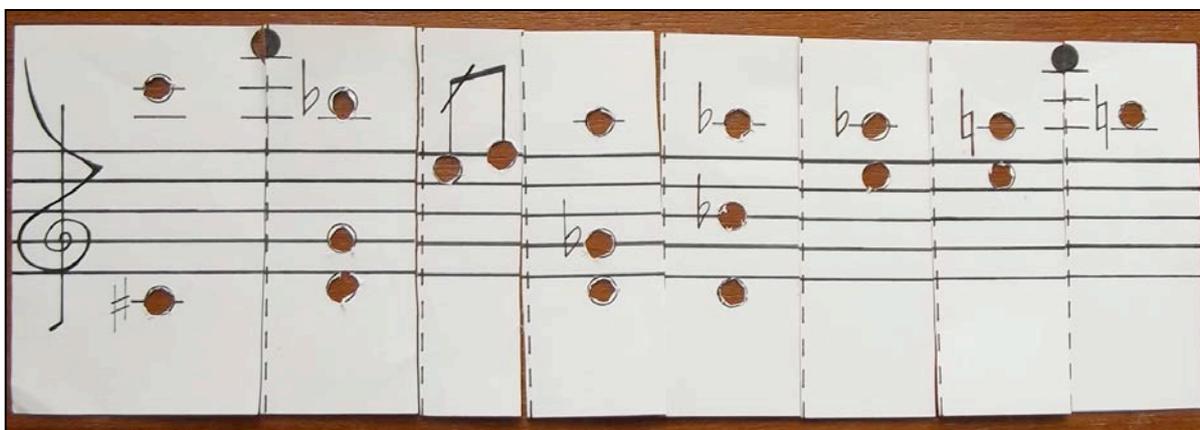


Figure 13: Result of cutting out noteheads and barlines

Out of these documentary remains, a “secondary score” (Kim-Cohen 2009, 50) is retrospectively composed for the toy pianist that anticipates and re-sounds the effaced documents. To me, this secondary score (fig. 14) functions like a glue or varnish that brings together the condensed, incised, and effaced remains of the compositional process; it is symbolic of the reconfiguration and repair implied by the word *découpage*. The secondary score functions as a frame for presenting the multiple histories and intermingling documents of destructive composition as an

13. Due to limitations of video recording duration imposed on the camera I used to record my performance of effacement, recording had to be cut into ten-minute chunks of time. Because I was focused on the task of cutting out the notation I did not always focus on the how much time had elapsed during a period of cutting. There was one moment where I became particularly taken up in the “excitement of the cut” (Poyner 2014) and continued to cut past the point of recording. Thus, I was left with a missing portion of the video documented performance. The recording, it could be metaphorically said, was cut into by an absorption in the act of cutting.

object that is apprehensible by an audience at the point of reception.

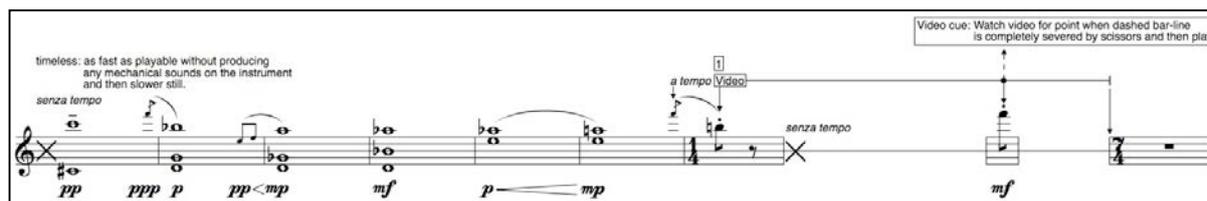


Figure 14: Excerpt of secondary score (interpreter's score) for *Découpage*

There are several additional particularities to the integrative constellation of structural, musical, sonic, and visual cuttings in this piece. Ultimately though, it is my feeling that these particularities are best evidenced by experiencing *Découpage* itself. Therefore, instead of comprehensively detailing the specific ways in which all forms of effacement and destruction are elaborated at the micro level in the piece, I point the reader towards the documentation of the premiere performance given by pianist Eric Gottlieb (e.g. 2) and a sampling of additional questions that crossed my mind during the creative and conceptualizing process. In conjunction with an understanding of the points of influence for my experimentation, an expanded sense of a retrospective compositional practice, and recourse to the piece(s) of work itself, it is my hope that the reader may imaginatively construct their own hypotheses of how, or indeed if, the following questions were resolved:

- What kind of material should I cut?
- On what material should the notation be inscribed?
- What type of scissors would I need to execute very fine and detailed cutting?
- Would the cutting of notation be done live?
- If so, would it be the only thing that happened during the live performance?
- If the piece/cutting was performed live, what would that mean in terms of subsequent performances and the durability of the score?
- Would the score need to be materially reproduced for every performance?
- How do effacement, ephemerality, destruction, and construction relate?
- Would the notation already contain, embedded into its symbology, information to instruct the cutter as to where, when and how to cut the notation?
- What types of relationships could be developed between musical notation and the sounds of scissors cutting different materials?

- If two notes overlap each other in the visual space of notation, part of one note would be cut out in the process of cutting out the overlapping note. How would this affect the convolution of audio?
- Is there any significance in cutting the stem of a notehead?
- What if cutting activated smells?

1.3. Case Study 2: Awkwardly Concealing and Obfuscating Portable Document Format Files in *a tenuous/tentative step towards performative awkwardness/clumsiness*

Adam Kotsko's (2010) book *Awkwardness* extends Martin Heidegger's conception and categories of the "moods" boredom and anxiety—each indicative of breakdowns in humans' normal relationships to stimuli (boredom) and time/death (anxiety), and which offer "way[s] of being 'attuned' to the world" (12)—to assert that awkwardness defines a current historical/cultural moment/mood. This awkward mood is capable of directly "attuning" human existence to "the meaning of *relationship*" (ibid., 15; original italics).

For Kotsko, relationship is articulated by a "breakdown in [...] normal experience of social interaction" (ibid.). After discussing how breakdowns of anxiety and boredom lead to meaningful understandings of time and attention respectively, Kotsko writes that breakdowns of awkwardness reflect "that no social order is self-evident" (ibid., 16). Accordingly, "we [humans] have no built-in norms," and therefore "awkwardness is what prompts us to set up social norms in the first place—and what prompts us to *transform* them" (ibid.; italics added).

a tenuous/tentative step towards performative awkwardness/clumsiness is a composition for solo vocalist that attempts to transpose Kotsko's "feeling of awkwardness" (ibid., 9)—normative instability and relational reactivity in the social realm—into a musical context. Focusing on the way I use Ensmudgifier—an application that was collaboratively developed with composer, colleague, and

programmer Braxton Sherouse—to display and efface digital documents of typographic notation, I examine ways that a musician’s relationship to scores can be made awkward. This examination is made in reference to the first performance of the piece given by vocalist Carl Rosman.

1.3.1. Ensmudgifier

Braxton built Ensmudgifier¹⁴ based on the design criteria that it should be able to:

Display

- display multiple pdf files of notation, one at a time, on a computer screen;
- define how long pdf files are displayed and in what order they are displayed;

Efface

- visually efface the typographic notation (data) of those documents (in ways that are similar to the physical effacements in the previous case study);
 - these effacements should include:
 - the ability to conceal certain portions of the pdf file behind a black mask so that only a portion of the notation is visible;
 - the ability to visual obfuscate the visually exposed notation;
- allow me to “perform” and document (record and store) visual effacements natively in the application;

Generate

- generate a score in the form of an application that the performer launches from a computer;
 - generated scores should variably recall and apply the performed/documented effacements to the typography of the documents over time;
- generate multiple versions of a score, which can have different file orders and durations, and call from different documented performances of effacement to be applied to the digital files.

1.3.1.1. Displaying Documents

Tenuous Awkwardness is composed of six pdf files. Files are referred to as panels and grouped into two sets of three. Each set consists of digitally typeset transcriptions of 15-second long excerpts from two other pieces of music—Anton

14. Ensmudgifier is compatible with Macintosh operating systems running at 10.6 or later.

Webern's "Das dunkle Herz," Op. 23 No. 1 (1933–34; hereafter also referred to as Set A) and the band Maker's standalone single "Missing" (2011; hereafter also referred to as Set B).¹⁵ Each excerpt is transcribed and typeset three times; one file

15. The complete text of each source is indicated below with the underlined text indicating material used in *Tenuous Awkwardness*.

Anton Webern, "Das dunkle Herz"

The dark heart
 which hearkens to itself,
 perceives spring
 not only by the breeze and scent
 which blossom through its glow;
 it feels spring
 in the dark realm of roots,
 which reaches to the dead.

That which grows
 lays its tender roots
 against that which waits in the dark;
 it drinks strength and repose
 from the night
 before it gives itself to the day
 before as a chalice of love
 it sends its fragrance to heaven,
 and before from heaven
 a golden flutter bears it life.

I do not belong to myself.
The springs of my soul,
they flow into the meadows of him
who loves me,
 and makes his flowers blossom
 and are his.

You do not belong to yourself.
 The rivers of your soul,
 thou man, loved by me,
 they flow into what is mine
 so that it will not wither.

We do not belong to ourselves,
 not I, not you, not anyone.

– Hildegard Jone's "Das dunkle Herz" from *Viae inviae*, translated by Brian Alegant (1991, 146)

Maker, "Missing"

hold on
you'll miss it when it's gone
when all is said and done
hold me while I'm young

from each set is a transcription of the original source melody (panels A1 and B1; figs 15 and 16), and the remaining two files from each set are rhythmic and pitch variations of the source (panels A2/3 and B2/3; figs 17 and 18).

Each panel duplicates the 15-second transcription across seven color-graded staves that represent different tempo strata. The middle stratum is black and represents a base tempo of quarter-note (Q) equals 60 beats per minute (bpm). The lighter red the notation is, the faster the tempo. The lighter blue the notation is, the slower the tempo. The bandwidth of the tempo spectrum ranges from Q=42–96 bpm (fig. 15) with intermediate tempos 48, 54, 60, 72, and 84 bpm.

Panels are imported into Ensmudgifier, where the user determines the order of panels and how long each panel is displayed. For instance, the user, in this case myself, can specify that panel A2 remain on screen for five minutes, panel B3 follows and remains for three seconds, panel A1 follows and remains for two minutes ... and so on until a total duration and set order of panels is determined. The duration of a panel constitutes a “panel section.” The sequentially determined order of panel-sections defines the “formal order” of a generated score.

1.3.1.2. Effacing Documents

There are two techniques for effacing panels in Ensmudgifier: concealing and obfuscating (e.g. 3).

so long
the innocence has gone
for what I will become
touch me while I'm young

The image displays a musical score for the piece "Missing", organized into eight horizontal staves. The first four staves are rendered in red ink, and the last four are in blue ink. Each staff begins with a dynamic marking *pfff*. The lyrics are: "Hold on, you'll miss it gone, when it's done, said and touch me young, while I'm". The notation includes various musical symbols such as notes, rests, and slurs.

Figure 16: Panel B1; transcription of "Missing"

The image displays a musical score for the song "Missing", presented in seven systems. The notation is color-coded: the first three systems are in red, the fourth in black, and the last three in blue. Each system consists of a vocal line and a piano accompaniment. The lyrics are: "Hold on, you'll miss it when it's gone. When all is done, said and touch me young, while I'm". The score includes dynamic markings such as *pppp* and *Hold on*, and various musical notations including slurs, ties, and fingerings. The overall structure is a rhythmic and pitch varied transcription of the original piece.

Figure 18: Panel B3; rhythm and pitch varied transcription of "Missing"

1.3.1.2.1. Concealment

Panels exported from Ensmudgifier are, by default, completely covered by an opaque black mask. I am able to uncover portions of this mask, referred to as “windows,” in the “Metrics” tab of Ensmudgifier (fig.19) by marking grey and red horizontal lines relative to the background panel. The distance between lines define a single rhythmic unit. I can also adjust the rhythmic value associated with a unit. For my purposes, I defined rhythmic units as an eight note. Grey lines mark all possible “opening points” for windows. After setting “opening points,” I can then adjust the aperture of a window by adjusting the number of rhythmic units that are uncovered. Ensmudgifier determines the duration of a window opening by multiplying the total value of uncovered rhythmic units by the respectively uncovered tempo stratum.

Windows immediately open one after the other and randomly appear at any of the marked opening points. It is possible to open more than one window at a time. In these instances, windows open on different tempo strata.

1.3.1.2.2. Obfuscation

In the “Smudge” tab of Ensmudgifier (fig. 20), I can “brush” over portions of the panel to smudge or erase the notation. “Brushing” is a performed (de)compositional gesture that takes place over time.¹⁶ Ensmudgifier records and stores starting points, the overall pattern, and duration of brushing gestures relative to a panel and stores them in the pattern panel with the prefix E (for erasure) or S (for smudging). When Ensmudgifier generates a score based on this recorded data, the entirety of a pattern is re-performed, randomly recalling recorded starting points, and adjusting

16. See Einar Torfi Einarsson’s *Erasure Piece I* and *Erasure Piece II* (2013), and *Pencil Piece I* and *Pencil Piece II* (2013) for examples of pieces that involve using pencils and erasures as instruments to enact composition/performance gestures.

the realtime duration taken to brush a panel in Ensmudgifier to fill the duration of the panel section displayed. Because the erasure and smudging brushing patterns are separately recorded and randomly recalled, it is possible for a portion of notation to be completely erased before it is ever smudged.

Smudged notation has no indicated influence on the sound the interpreter produces. However, the smudged notation may destabilize the performer's ability to legibly discern the image and induce a performative hesitancy (a hiccup) that disturbs the flow of performance. Erasure directly affects how the notation is read and thus the sonic quality of sound produced. The degree of erasure indicates the degree of a breath-to-tone ratio. The more extreme the erasure, the nearer to pure breath the sound should become.¹⁷ Both smudges and erasures are "transformative" (Vickery 2012, 133) forces "act[ing] upon" (Coenen as cited in *ibid.*) notation.¹⁸

1.3.1.3. Generated Scores

Once a formal order has been determined and effacements are recorded/stored relative to each panel section, Ensmudgifier can generate a score.

17. Andy Ingamells applies a similar principle of erasure to tone diminution in *Waschen* (2015). *Waschen* is a prime example of a piece where the performance is literally an act of decomposing. In the piece, Ingamells stands in front of a mirror and draws the word waschen (German for "washing") on multiple body parts. Ingamells remains standing in front of the mirror and washes the marks off while singing the word "waschen" that is being washed at that moment.

Treating the body as an inscribed score, the higher Ingamells washes on the body, the higher the pitch they sing; vice versa, the lower on the body they wash, the lower they sing. As the markings are washed away, they fade and the singing correspondingly becomes fainter until it is nearly a whisper. Ultimately both the singing and the inscriptions are completed washed away.

18. These terms are made in reference to Karlheinz Stockhausen's *Refrain* (1959). *Refrain* is an example of what Lindsay Vickery (2012) has termed a "transformative mobile score" (133) in which "the paper score is overlaid by a mobile clear plastic strip that modifies whatever the material is below it—a structural approach [Stockhausen] referred to as 'variable form' (Coenen 1994, 218)" (*ibid.*).

Score Data smudges

Smudge Metrics Form Make App

A'

fraction of crochet: 0.5

panel name
A1
A2
A3
B1
B2
B3

time signature: 1/4

staff	unit metrics start?
96	<input checked="" type="checkbox"/>
84	<input type="checkbox"/>
72	<input checked="" type="checkbox"/>
60	<input checked="" type="checkbox"/>
54	<input checked="" type="checkbox"/>
48	<input checked="" type="checkbox"/>
42	<input checked="" type="checkbox"/>

unit metrics start? |
 0.063268...
 0.086223...
 0.095890...
 0.130359...
 0.157944...
 0.187967...
 0.195147...

copy from previous staff

Figure 19: “Metric” tab of Ensmudgifier
 Grey lines indicate possible window opening points
 Highlighted stratum is a vestige of prior design versions and serves no function here

The screenshot displays the 'Smudge' tab in the Ensmudgifier software. The main area shows a musical score with ten staves. The first three staves are highlighted in red, and the last seven staves are highlighted in blue. The lyrics under the staves include: 'Ich bin nicht mein...', and 'Ich bin nicht mein...'. The score includes various musical notations such as notes, rests, and dynamic markings like 'ppp' and 'pp'. The interface includes a 'Score Data: smudges' header, a 'panel name' dropdown menu with options A1, A2, A3, B1, B2, B3, and a 'pattern' dropdown menu with options S-A1, E-A1, S-A2, E-A2, S-A3, E-A3, S-B1, E-B1, S-B2, E-B2. The 'pattern' dropdown is currently set to 'E-A2', which is highlighted in purple. Below the dropdowns are buttons for 'edit', 'background: none', and 'brush size: remove'.

Figure 20: “Smudge” tab in Ensmudgifier
 Result of an erasing performance
 Data from performance stored in highlighted E-A2 in pattern panel

The generated score is an application that runs according to the formal order and quasi-random material transformations defined/stored in Ensmudgifier. I can generate multiple scores based on various adjustments to the information defined and stored in Ensmudgifier. Each generated score constitutes *one* version of *Tenuous Awkwardness*. Furthermore, each time the score is launched and runs, the material transformations manifest in slightly different ways. The general way that a score runs constitutes what I refer to as a score's "behavior." Behavior is defined by the way that I have defined the following parameters:

- formal order
- duration of panel sections
- windowing
 - aperture of windows
 - number of windows open simultaneously
- obfuscation
 - rate and degree of smudging and erasure

Rosman worked with two generated scores: a "practice score" (e.g. 4) and a "performance score" (e.g. 5). Rosman worked with the practice score during rehearsal, and during the premiere sightread the performance score. The practice score conditions a relationship with the score that the performance score disturbs and makes awkward.

1.3.1.3.1. Practice Score

The behavioral outline of the practice score is as follows:

- Formal order of panel sections: A1 A2 A3 B1 B2 B3 B3 B2 B1 A3 A2 A1;
 - This formal order conditions the interpreter to expect a very basic formal outline;
- Each panel section is one minute long, making the practice score twelve minutes long;
- The number of windows that open during a given panel section are (where #w=number of windows): A1 (1w), A2 (1w), A3 (1w), B1 (1w), B2 (1w), B3 (1w), B3 (2w), B2 (2w), B1 (2w), A3 (2w), A2 (2w), A1 (3w);
 - Multiple windowing only occurs after six minutes/panel-sections have

passed;

- Window apertures always remain the same size during a given panel section;
- The degree of smudges and erasures of notation is minimal;
 - The practice score primes the performer to be able to navigate self-effacing notation in realtime.

1.3.1.3.2. Performance Score

The behavioral outline of the performance score deviates from the practice score in the following ways:

- The formal order of panel sections is not the same and is less predictable;
- Multiple windowing is introduced at an earlier point;
- The number of possible windows open at a time during a panel section increases from three to four;
- Obfuscating gestures are introduced earlier and are generally more extreme;
- A new form of covering, “Blackouts”—moments where the screen goes completely black following an open window—is introduced during the sixth panel section;
- An additional panel section (panel B3), 25-seconds in duration, is added where the interpreter might normally expect the score to finish.

1.3.2. Feelings of Awkwardness

Awkwardness is built into *Tenuous Awkwardness* in two ways: the way that Ensmudgifier effaces and handles documents affects the way that a musician relates to the experience of time while reading a score, and the defamiliarizing effect of sightreading a superficially familiar, but always potentially different, score destabilizes performance.

1.3.2.1 Time and Temporalities

Through Ensmudgifier, the six static PDF documents are rendered into realtime “mobile scores” (Vickery 2012).¹⁹ Movements from window to window across a panel section can be compared with Karlheinz Stockhausen’s *Klavierstück XI* (1956).

19. Lindsay Vickery (2012) has defined several categories of screen-displayed scores, including realtime, scrolling, and segmented (131).

Klavierstück XI is a “single page mobile score” (Vickery 2010, section 3.1)²⁰

navigated by selecting and starting from one of nineteen sections, reading through to the end of the section’s system, taking note of tempo, dynamic, and articulation indications located at the end of each section, and then (ideally) randomly moving to another section and applying the tempo, dynamic, and articulation indications from the end of the previous section to that section. However, instead of the interpreter moving from section to section on their own accord, in *Tenuous Awkwardness* the interpreter is carried (or transported) passively from one area to another.²¹

The status of “realtime” is qualified in two ways. The first is by the way that interpreters are moved from section to section across the formal order of panel sections. The second is the way that windows always imminently redirect a performer’s attention to another part of the screen/score. Furthermore, the amount of time that a window remains open is, objectively speaking, always identical in duration as needed to accurately realize the revealed material. Windowing perpetually (re)places the interpreter in a reading situation akin to what Jason Freeman (2008) has called “extreme sightreading.” The musician has no recourse to the macro-formal layout of the score beyond the windows, and is only ever able to attend to what is presently displayed on screen.²²

20. James Saunders (2008) has similarly identified this type of score as having a “closed modular” (156) structure.

21. Vickery has made a parallel application, named *Klavierstück XI Scoreplayer* (Vickery 2010, slide 18), specifically for moving through Stockhausen’s *Klavierstück XI*, which truly “mobilizes” (ibid.) the reading experience.

22. This noted, in *Tenuous Awkwardness*, despite windows opening one after the other, an interpreter does not always produce the sound to which they are visually attending. This is to say that, instead, they slightly “read ahead” of the production of sound. For this reason, an interpreter may not be immediately moved to (or moved by) the next window opening. This is a problem here because the jagged shifts from one window to another is intended make reading the score

The significance of categorizing a score as unfolding in realtime is most obvious when one considers scenarios that are “time-critical” (Vickery 2014, 222). These scenarios include needing to maintain ensemble synchronicity, staying aligned with prerecorded audio and/or video, and/or interacting with live audio and/or video processing. However, the significance as it relates to *Tenuous Awkwardness* has nothing to do with time-criticality and everything to do with producing an oscillation between three “experiences of time” (temporalities):

- an always imminent (Vickery 2012, 132)²³ redirection of attention;
- a shifting and non-linear movement through the seven tempo strata;
- an ‘immediate nowness’ of reading and performing.

The terrain of the documents/notation is temporally unstable because of the way that Ensmudgifier effaces. A musician is perpetually positioned “just before the moment” of change, always in a temporal state of imminence as the result of window openings constantly shifting from one location to another. The fact that the exact location of the next window is never certain makes it impossible to anticipate where to direct one’s attention. Were there no differences in tempo strata, an interpreter may be able to at least more easily anticipate the moments *when* windows would change, but the constant shifting of gears caused by the seven tempo strata makes anticipation of change exponentially more difficult.

awkward and produce a sonic clumsiness. Instead, the interpreter is able to “smooth over” the seams. One possibility for resolving this in another version of the score could be to have windows themselves behave in different ways (fade ins and outs, jittery windows, etc.), which may make it less likely that a performer will be able to fall back on sight-reading abilities and tendencies. This would need to involve additional coding to change the capabilities of Ensmudgifier. See Vickery (2014) for an overview of research into eye movement and score reading.

23. I believe that Vickery incorrectly uses the term immanent to describe an “in the moment” (Vickery 2012, 132) temporality of performance as experienced on behalf of a musician. I have instead used what I believe to be the correct term that Vickery intended to use, imminent. Further, I will make the argument that the temporality of imminent is rather a kind of “always right before the moment” (regardless of how much time passes before that moment) that differs from an “in the moment” which might instead be called an “immediate nowness.”

Complicating the liminal temporality of imminence is an intermittent “immediate nowness” of reading and performing activated by obfuscating the notation. Due to the way material is transformed in realtime, the recorded/performed smudging and erasing of visual musical information draws the interpreter’s attention *into* the score and forces a more immediately engaged and localized reading experience within the space of an “eye- contingent moving-window” (Gilman and Underwood as cited in Vickery 2014). In short, the musician’s sense of temporarily is frequently being realigned at the local- level while reading a score.

1.3.2.2. Familiarization Strategies

Oscillation between temporalities and frequent attention redirection produces an unstable reading experience. However, despite this unstable reading experience interpreters are able (and expected) to grasp the general behavioral contours of a score-application. Through continued rehearsal and development of “discipline” (Craenen 2014, 32), they simultaneously become familiar with and conditioned to certain reading engagements with a score. This familiarity with a score establishes a tenuous relationship between musician and score that can be “interrupted” (ibid., 33) by the introduction of a sightread variant performance score.

Several pieces of music involve sightreading as a central premise. Peter Ablinger’s *WACHSTUM UND MASSENMORD* [*Growth and Massmurder*] (2009–10, hereafter *Wachstum*)—for title, string quartet, and program note—stages sightreading. Sightreading is staged not in a theatrical sense, which the piece’s instructions explicitly suppress, but rather in the literal sense that it publicly presents a string quartet rehearsal for an audience. Before the first performance of the piece,

the quartet will have not seen the score;²⁴ upon entering the performance space, they open the score and begin to rehearse.

Originally composed for, and premiered at, the music festival Donaueschingen, the piece functions in resonance with what Pierre Bourdieu ([1979] 1986) terms the “field” (here, the concert hall) and the “habitus” of agents (here, the musicians/audience) within. Commentary on the piece often focuses on the audience’s reaction at the premiere, which was, beyond an “initial disorientation” (Gottschalk 2010) the first time it was presented, antagonistic, dismissive, and forceful.²⁵ However, moving beyond a descriptive recollection of audience reaction, composer and scholar Jennie Gottschalk brings an interesting perspective on the field/habitus of the piece/performance.

Having attended the premiere and then soon after the Frankfurt Zoo, Gottschalk draws an analogy between the monkeys on display and the members of the string quartet. In both cases, the “actors” (the monkeys and the string quartet members) are responsible only for being themselves. I raise this observation to highlight the way that subjects situated within the “space of music” (Craenen 2014, 21)—the concert hall—are objectified (much like animals in zoological contexts).²⁶ The

24. Subsequent performances of the piece are not sightread in the strict sense. Ablinger (2010) writes on the repetition of performances: “Can the piece be performed another time by the same quartett [*sic*]? I would say, yes, as long there is something left to rehearse.”

25. Audiences booed, threw paper airplanes at the quartet(s), and forcefully attempted to conclude the performance of the piece by prematurely applauding the quartet (Gottschalk 2010).

26. In the book *Composing Under the Skin*, composer and scholar Paul Craenen (2014; all italics original) situates the musicking body within a spatial context/metaphor. In doing so, three musical spaces are prepositionally defined: the space “*surrounding*” (20) the music, the space “*for*” (21) the music, and the space “*of*” (23) the music. The first two spaces are largely external to the experience of spatiality within musical time, what Craenen refers to as the space “*in*” (25) the music. Within the space *of/in* music there are three adverbial, phenomenological descriptions of musical space: experiencing music sounding “*somewhere*” (28), sounding “*here*” (39), and sounding “*there*” (36).

monkeys of the Frankfurt Zoo are not unlike Briet's antelopes; they are primary/initial documents of their being, thus suggesting that members of a string quartet are, at least in part, documents, and that the social norms that Ablinger's situated awkwardness provokes are inscribed onto, and read from, the musicians' musicking bodies and activities. I develop this notion of musician-as-living-document further in Chapter 3.

Louis d'Heudieres's *My Favourite Piece* (2014–) is an example of a piece that emerges out of the reformulated social relations made available/permissible in musical practice through the awkwardness that Ablinger's piece provokes. Also operating within a dynamic field/habitus, the work of the piece involves musicians video recording an initial encounter with a score, and thus an unfolding process of familiarization, in their personal rehearsal space. Musicians send d'Heudieres information about their favorite piece of music, of which a transcribed excerpt is derived and the bars shuffled. For *My Favourite Piece*, this defamiliarized transcription constitutes the score. The recorded rehearsal process documents a process of (re)familiarization with personally intimate and significant material. Musicians are instructed to record this process in one take until they are satisfied with their ability to play through the score completely.

The space *of* music in d'Heudieres's presentation of this process is worth noting as it provides yet another perspective on issues of documenting and staging

To roughly outline Craenen's three preliminary spaces *surrounding/for/of* music: the space *surrounding* music includes all human interactions externally and indirectly related to musical activity; the space *for* music is environmentally an "instrumental space" (22) and constitutes the direct surroundings of musical activity including "concert halls [physical (and, theoretically, virtual) spaces of performance], practice rooms, instruments, instrumental technology, musical notation, and archiving techniques" (21); and the space *of* music is the playing field of music, which is composed of musical activities that take place within the instrumental space as situated within the spaces *surrounding* and *for* music.

musicians, and an audience's knowledge of the musician's relationship with the score. The piece is presented on the Internet with the performer's video recording overlaid the top left corner of a pdf document of their score (fig. 21). The score is turned into the stage (or field) of performance, much like the physical concert stage needed for Ablinger's *Wachstrum*. Audiences are able to scroll through the pdf while they observe the development of discipline and the gradual reduction of mistakes/deviations from the score.

The image displays a digital performance interface. In the top-left corner, a small video window shows a man in a dark shirt playing a piano. The main area is a PDF score for 'My Favourite Piece' by Louis d'Heudieres. The score is written for Baritone and Piano. The Baritone part is in bass clef with lyrics: 'rive! Mais main J'ar-'. The Piano part is in treble and bass clefs with the instruction 'en dehors'. Dynamic markings include *f*, *mf*, and *mp*. A tempo marking of $\text{♩} = 70$ is present at the beginning.

Figure 21: Internet presentation of Louis d'Heudieres's *My Favourite Piece*
Reproduced with permission of composer

The process of familiarization gradually unfolding in *My Favourite Piece* is rather constantly being deflected back onto itself in *Tenuous Awkwardness*. In the case of *Tenuous Awkwardness*, the performance score is designed to *feel* familiar, although it is not. That is, the practice and performance scores share musical material, appearances, and behaviors. Rosman is told in advance that there are differences

between the two scores. Thus, while the score feels familiar, in the performer's mind the performance score can, at any point, deviate from the behaviors established in the practice score. In these moments of deviation, the musician must instantaneously adapt to and reorient their attention towards the behavioral change(s). The recoil or "resistance" (Craenen 2014, 34) of this reorientation may cause the interpreter to noticeably react to the score, thus bringing to the surface a relational awkwardness.

A critical difference between d'Heudieres' *My Favourite Piece* and *Tenuous Awkwardness* is the way that an audience perceives or knows about the relational awkwardness produced in dynamic encounters between musician and manipulated document (score). I close this chapter by detailing moments of encounter between Rosman and the performance score of *Tenuous Awkwardness* during Rosman's premiere performance, and considering the issue of an audience's and individual performers' relationship with the score(s) for *Tenuous Awkwardness*.

1.3.2.3. Encountering Moments of Awkwardness in Carl Rosman's Performance of *Tenuous Awkwardness*

Moments where the performance score deviates from the practice score and noticeably affect discipline occur in a few places in Rosman's performance. I present here two moments from a video recording of the premiere of *Tenuous Awkwardness* as evidence of these interruptions and musician-idiosyncratic resistances. Videos present both Rosman and a screen-capture of the score. In both examples, the way that documents are performatively effaced provokes a relational awkwardness between performer and score.

Moment 1 – "Blackouts" (e.g. 6 and 7):

- The score unexpectedly "blacks out" and there is no performable windowed

material;

- There are no silences or pauses in the practice score;
- This is a behavioral element of the score not found in the practice score;
- There is always an open window in the practice score, meaning Rosman expected to be constantly performing material;
- In this excerpt, this is first time that the Rosman encounters a blackout;
- In reaction to this deviation in the score's behavior there is a slight, physically noticeable, reaction. Even though it is known that the score will close on its on in a clear manner, perhaps Rosman thinks the application has malfunctioned;
- Now that this behavior has been introduced, it is possible that Rosman has started to anticipate the integration of this behavior.²⁷

Moment 2 – Extreme erasure: (e.g. 8 and 9):

- The notation during this section undergoes extreme erasure/smudging;
 - The document is effaced to such a degree that the notation is barely visible;
- By paying attention to Rosman's eyes and heads skittering around, it is possible to see the interpreter hurriedly scanning the laptop screen looking for material that they can read and perform.

1.3.2.4. Presentation and Future Development of Scores

During the premiere of *Tenuous Awkwardness* the score was not projected/displayed or made available for the audience. Thus, it is unlikely that an audience member would have noticed the reactionary moments detailed above as manifesting from an awkward encounter between musician and score. My thinking at the time was that, by simultaneously displaying what Rosman was seeing and performing, attention would be drawn away from (or unevenly split between) the physicality of the musician and the visual display of the score. And, for the premiere, I was more interested in using the concert space as a testing ground for determining whether the relational awkwardness between musician and score could be convincingly and clearly articulated solely through physical reactions and gestures—if the musicking body could carry and transmit the relationship without recourse to visual

27. Another string of blackouts occurs towards the end of the performance score. These blackouts seem to be less jarring, on the face of it, than the first string of blackouts.

supplementation.

Upon reflection, I do not believe that the premiere succeeds on those grounds. While I do think that a visual supplement may have slightly brought the reactionary gestures of Rosman's performance to the foreground, I think that there exists a more fundamental problem preventing the apprehension of awkwardness, the solution to which a more radical consideration of presenting the score to an audience opens. This problem is comprised of two issues, both of which relate to how the performance score differs from the practice score. The first issue lies in the way that base-behaviors are extended, developed, and deployed in the performance score as compared with the practice score. The second issue is related to how performer-bespoke the performance score's behavior deviations from the practice score are to a specific musician's musicking habits.

Every performer of *Tenuous Awkwardness* receives the same first practice score. The nature of the performance score can be drastically different from performer to performer. Furthermore, after a performer performs from a performance score, that score then becomes the new practice score in the interim period before a subsequent performance of the piece. Thus, a "second" performance score would be made to cause friction with the behavioral dynamics that the now performance-score-turned-practice score habituated. Accordingly, each person who performs *Tenuous Awkwardness*, over time, leaves behind a trail of scores that are specifically related to their performance history with the piece. In other words, *Tenuous Awkwardness* takes on a different lifespan and trajectory of development that is directly associated with a given musician. Or put differently still: theoretically, the fourth performance score that Rosman would perform from would be distinctly

different (in terms of behavior, not base-material) from the fourth performance score made for another performer.

For the first performance score that I made with Ensmudgifier, I was conscious to not too dramatically change the nature of score behaviors. This was because I had not previously worked with Rosman to understand where a threshold (however blurry) between familiarity/comfort and unfamiliarity/discomfort lay for Rosman. Therefore, I took a tentative approach towards difference. Reflecting back on the rehearsals with Rosman and the premiere of the performance score, it is now clear to me that the base-behaviors would need to, at least for Rosman, be more drastically changed to affect the destabilizing and awkward relation with the score that I was after. In particular, there are a couple of changes that I think could be applicable to any musician and which would more certainly produce a reading situation where the score provokes a bodily and gesturally manifest awkwardness for, and throughout, the musician.

The two main changes would be a development with how Ensmudgifier could handle the windowing function, and an additional function to be able to move noteheads, beams, stems, and other notational components. With regards to windowing, instead of having windows always open one after the other (or temporarily blacking out altogether), windows could:

- fade in and out;
- stutter rapidly and/or sporadically between black outs and one or more windows;
- have different degrees of opacity;
- or be “cut” so that there are black (masked) gaps interjected within a window.

The primary reason for wanting to do this would be to disturb and subvert the ability for a musician to read ahead, by which I mean sightreading the next window while

performing a previously opened window from memory. In short, these more radical distortions of the windowing function would further increase the likelihood that the musician is situated within a moment of “extreme sightreading” (Freeman 2008) without the ability to look forward or backwards. With regards to movement of visual components of the notation, this could include:

- moving noteheads up or down at random;
- having accent or slurs rapidly and/or sporadically swapping places with other accents or slurs;
- having beams randomly added or removed to affect the rhythmic flow at a more local level rather than exclusively at the level of tempo changes.

Again, these changes would more radically affect the attention of a reading musician, and also have very noticeable differences on the musical material.

However, after working with Rosman, I have come to believe that, no matter how dramatic the differences between practice and performance scores, the most effective way of determining not only what to change on a behavioral level—but also by how much to make those changes—is through collaboration with the musician. Understanding an individual’s musicking habits would greatly help determine what type and amount of changes would produce the desired amount of awkwardness in performance.

If considerations of a musician’s musicking habits (or default reading behaviors) were taken into account for each individual performer, I think that there could be more reason to present the score(s) for *Tenuous Awkwardness* to an audience during performance. In addition to changing the functional aspects of the way that the score plays back in performance, it could be possible to change more visually aesthetic aspects of the score, such as: font style, background images, flashing lights, personally related textual notes, etcetera, all of which may or may not have

any effect (dependent on use) on the way that a musician reads the score.

Moreover, upon more thoroughly reflecting on the possibility of making musician-bespoke scores, the idea opens up that the score a musician reads during performance does not need to be (or does not always need to be) the same as the score that is being projected. In fact, by compositionally working with what is actually being seen/projected—in terms of score behaviors (whether or not the score blacks out), switching between different score versions (say, showing a practice score when a performance score is being read), and the style/personality of the score—it is possible to construct a relationship between audience, musician, and score, which is in its own way also awkward.

2. Reflected

Recordings of/for Performance

When I edited a [video]tape with the computer, for the first time in my life I saw that my video piece had a “score,” a structure, a pattern that could be written out on paper. We view video and film in the present tense—we “see” one frame at a time passing before us in the moment. We don’t see what is before it and what is after it—we only see the narrow slit of “now.” Later, when the lights come on, it’s gone. The pattern does exist, of course, but only in our memory. (Viola 1995, 101–02)

2.1. Introduction

In this chapter the stage of compositional performance (manipulation) is shifted from one type of score content, notation—upon which destructive and incisive traces of effacement are documented and made musically meaningful—to two others, video and audio recorded data—specifically, phonographic or photographic representations of performing musicking bodies that document physical actions. Starting with accounts of two formative musical experiences, I reflect on the ways that I have worked with audio and video scores—especially those that use performance documentation of physical action as their material.

2.2. Two Experiences

2.2.1. November 26, 2014

I am sitting stationary on the floor of my home in front of two loudspeakers. This is a position and posture²⁸ my body regularly revisits after I participated in a Vipassanā-meditation course two months ago. Since completing the course and returning home, my voice and body have developed a practice of performing in response to music.

28. The posture and quality of listening in this position could be described as a combination of what Klaus-Ernst Behne has termed *concentrated* and *vegetative* (as cited in Hargreaves, Hargreaves, and North 2012, 159). A concentrated listening style is one where the listener preferences closed eyes, and a vegetative listening style is one where the listener assumes a different body position. My preference for attentive listening in November 2014 tended to be eyes closed and seated on the ground.

Instead of *verbally talking about* the sounds I hear, I *sonically dialogue with* audio recordings (during and/or after playback) as a way of relating to the “vibrational force” (Goodman 2012) experienced as sound emanating from the loudspeakers, which permeate in the space of the room and my imbricated, affected, vibrating “corporeal” (Piekut and Stanyek 2010, 19) body.

Today I share my listening experience with my visiting friend, the composer Louis d’Heudieres. I propose we listen to one of my favorite pieces—*Shift* (1992-94), for five cellists, composed and performed by Franklin Cox—before going to a concert at the Huddersfield Contemporary Music Festival, for which Louis is visiting. Sitting and listening in silence, the 14-minute tidal wave of multi-tracked cellos crashes against our bodies, the vibrational energy reverberating with palpable kineticism, the silence of the aftershock temporarily paralyzing ...

Many of my friends make curious sounds. I take great joy in this fact and thus these people and the sounds that they make stick *with* and *in* me. One of my earliest musical companions, composer and pianist Chad Latta, was one such friend. While wandering through wooded areas of Ohio talking about music, Chad shared with me a vocal sound that would come to be a shared fascination. Chad was singing “egressive” (Edgerton 2015) multiphonics in octaves. I became interested in making my own multiphonics and gravitated towards the noisier “ingressively” (ibid.; Bartlett 2012) phonated variety.

Many years later in 2011 still intrigued by the grit of the voice I could often be heard working on vocal fry, ingressively singing/multiphonics, singing/whistling multiphonics, various tongue clicks, and a whole host of

other vocal sounds (much to the dismay of those who lived in close proximity to me!). Through sheer repetition of utterance and personal significance these sounds deeply resonated *within* and *throughout* me— the sounds were not only captivating but also increasingly defined my identity. It was this year that I wrote the solo voice piece *Various Terrains* (\equiv degrees of similarity) (hereafter *Various Terrains*), a piece that gives form and structure to the personal, identifying, and embodied vocal sounds that I inhabited.

Unable to imagine a way of structuring these sounds on my own in performance I took refuge in the activity of composing to situate and structure the sounds. A few months later in 2012 vocalist Amanda DeBoer Bartlett premiered and recorded the piece. The audio recording of that performance is a document, albeit an obscure one, of my vocal identity which itself emerged out of interactions with Chad and no doubt prior formative vibrational imbrications that I am unable to remember. Composition here was used to enact a type of sonic ventriloquism (Connor 2001), as a way of getting my sonic self out of my bodily self and into the world of vibrations through the “resonance” (Dyson 2014 152–53) of another performer—a device for distributing identity.

... Still stuck in the paralyzing aftershock, between inaction and action, a constellation of thoughts race through my mind:

- I think about the layeredness of recordings in *Shift*, that the mass of cello sound is the result of five identical cellists brought together in time through the virtual space of audio recording.
- I remember my time studying with Cox, and the still strong influence of his teaching that served as a guiding voice while I wrote *Various Terrains*.
- I think about how to best navigate this silent pause.
 - Should I take this moment to share with Louis the performative and dialogic listening practice I am developing?

- If so, what would that mean?
- Does it matter, and where might it go?
- I make an association between the almost vocal wispieness of the cello at the end of *Shift* and the sounds encoded into the audio recording of Amanda's performance of *Various Terrains*.

These histories and associations compel me to improvise a dialogic bridge with my voice that transitions between, and brings together, the recordings of *Shift* and *Various Terrains*, and functions as a way of sharing with Louis a sonic network of influences at play in my work that that would otherwise be impossible to articulate verbally.

After we cross the improvised bridge, and arrive at the beginning of Amanda's recorded performance of *Various Terrains*, I initially turn silent. However, as time goes on, I start to imitate vocally the sound of the audio recording as closely as I possibly can. Coming back to the imbricated vibrational forces at play in this situation, the audio documentation of Amanda's performance playing back through the loudspeakers and my vocalized imitation exist within "an environment dense with what philosopher Jean-Luc Nancy calls the 're-soundings' *by* all the vibrating entities in a space *of* all the vibrating entities in that space" (Cusick 2012, 278; original italics; citations suppressed). This "re-sounding" (Nancy 2007) is as much *physical* as it is *immaterial*. It is historical and conceptual; it articulates the multiple and distributed personal relationships that form the urtext—an aurtext [original aural text] or ortext [original oral text]?—of (my) voice.²⁹

I have drawn from this experience to bridge a different gap between audio recordings of two types of vocal sounds that I hear as musically—and thus

29. It is beyond the scope of this commentary, but the ethics and documentary function of this phenomenon and practice when dealing with spoken verbal sound sources is increasingly well detailed in the field of work categorized as headphone verbatim theater (Wake 2013 and 2014).

historically and sonically—connected. In *urtext* (2014)—a performance piece that involves listening to and imitating various recorded vocal sounds heard through headphones (e.g. 10)—I attempt to “re-sound” infant vocalizations (an abundant palette of sounds yet to be formed into any type of solid identity) in connection with the vocal sounds of *Various Terrain*. On the connection between infant and adult language, comparative literature scholar Daniel Heller-Roazen (2005) writes:

Do the languages of the adult retain anything of the infinitely varied babble from which they emerged? If they did, then it would be only an echo, since where there are languages, the infant’s prattle has long ago vanished, at least in the form it once had in the mouth of the child who could not yet speak. It would be only an echo, of another speech and of something other than speech: an echolalia, which guarded the memory of the indistinct and immemorial babble that, in being lost, allowed all languages to be. (11–12)

To my ears, the utterances of infantile, pre-lingual prattle—sounds that have not been limited or forgotten through the acquisition of language (*ibid.*, 9–10)—are an *urtext* echoed in an almost post-lingual babble (echolalia) found in some contemporary treatments of the voice, of which *Various Terrains* participates.³⁰

Concerning the physical aspect of this conceptual re-sounding of language, I note that when I make infantile sounds my face surfaces physical gestures; my physical being is entangled with the reproduction of the sounds. The recordings are phonographic documentation of physical movement that my body physically re-animates. The ramifications of this particular engagement with phonographic documentation will be returned to later. But first, we must travel back in time two and a half years and three miles down the road ...

2.2.2. April 30, 2012

Again, I am sitting, this time on a chair in St. Paul’s Hall located on The University of

30. Here I am thinking of vocal work, for example, by Luciano Berio, Jaap Blonk, Aaron Cassidy, Michael Edgerton, Evan Johnson, Gregory Ligeti, and Liza Lim.

Huddersfield campus. I am observing a rehearsal with vocal ensemble EXAUDI and composer Aaron Cassidy of Cassidy's vocal octet *A painter of figures in rooms* (2011–12; hereafter *Painter*).

Painter is a piece that continues to investigate Cassidy's longstanding fascination with painter Francis Bacon's anthropomorphically "distorted, dislocated, twisted, [and] immediately, identifiably, [and] fundamentally human" (Cassidy 2012a) figures. This work in particular draws on Cassidy's identification that it is the mouth in Bacon's work that is often the most distorted, "always clearly a mouth, [it] is identifiably snarled or screaming or shrieking, but it's in the wrong place, its proportions are wrong, it's deformed and frightening" (Cassidy 2012b).³¹

Cassidy has decided to frame this feature of Bacon's work by setting several different physiological parameters of vocal production in play with each other, with one such modulating parameter being the mouth shape of the vocalist. The mouth shape parameter consists of six discrete and graduated mouth shapes that are abstractly and symbolically notated and enclosed within either squares or circles in the score (fig. 22).³²

It is midway through the rehearsal and some members of EXAUDI remark that they are having some difficulty accurately recalling the defined mouth shapes. This is, in part, due to the way the multiple conflicting and confluent lines of physical energy give rise to a contorted physicality of voice. Negotiating and navigating this

31. On this point, based on my own survey of Bacon's work, I find *Study for the Head of Lucian Freud* (1967) to be especially interesting. In that painting, large swathes of the figure's head are wiped and twisted, with one of the most distinct features to remain being a half-formed pair of lips. Here, the mouth almost appears to be *the* force that is affecting the entirety of the figure.

32. The six mouth shapes are as follows: closed mouth; lower lips touching top teeth; round, narrow, pursed lips; exaggeratedly round; spread, horizontal; tall, vertical (Cassidy 2012c).

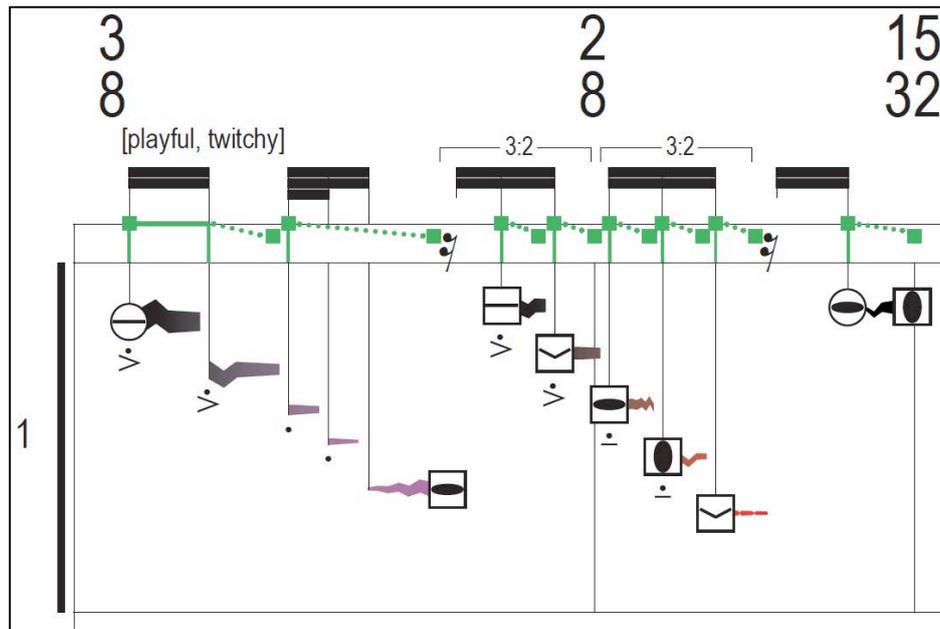


Figure 22: Measures 57–58 in “Voice 1” of Aaron Cassidy’s *A painter of figures in rooms*
 Mouth shapes indicated in square and circle enclosures
 Reproduced with permission of composer

territorial instability is at the core of work involved in realizing *Painter*. The score is a ground upon which a “tangled battle” (Cassidy 2012a) of the voice (breath, mouth, glottis, and tongue) gives rise to the “*personality of each voice*” (ibid.; original italics). Regarding personality, Cassidy remarks that, instead of sounding *singerly*, the more destabilized the physical territory of singing is in *Painter*, the more the singers sound like *themselves*, like “[members of EXAUDI:] Amy [Moore], or Tom [Williams], or Simon [Whiteley], or Stephen [Jeffes]” (ibid.; italics suppressed).

This emphasis on the individuality and personality of the singers/voice in connection to the problem of recalling mouth shapes leads me to jot down a stray thought (fig. 23), which, when fleshed out, amounts to the following question: What if the abstract, symbolic notation for mouth shapes were instead replaced with visually photographic representations of each individual musician’s mouth shapes?

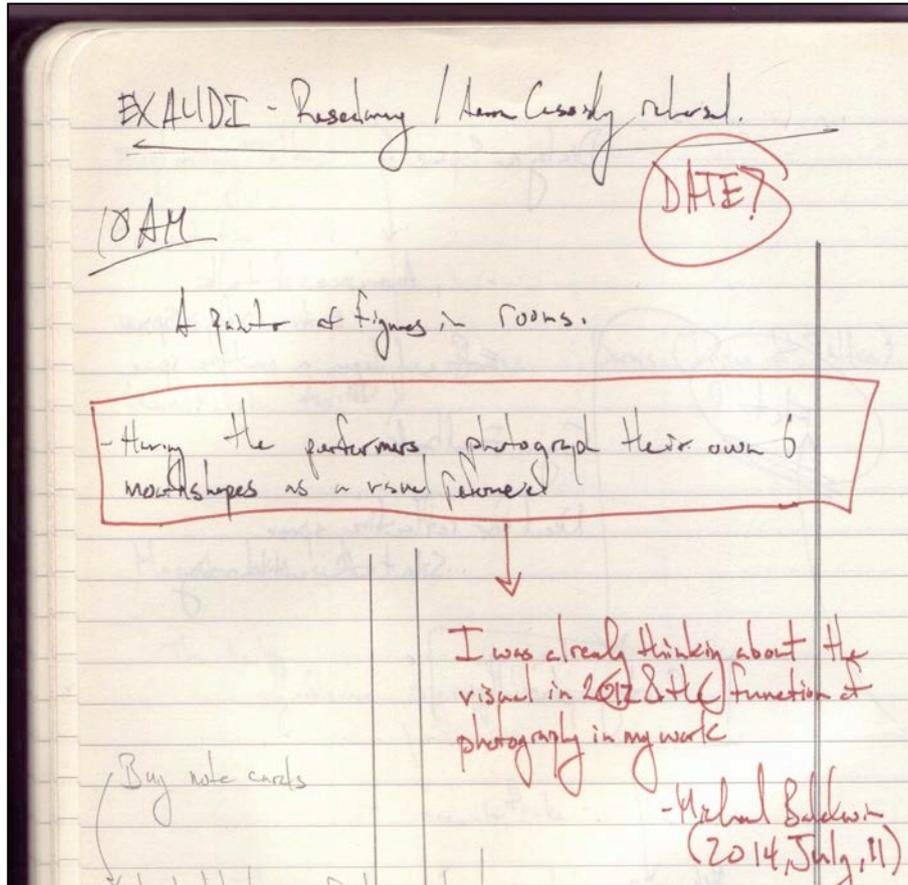


Figure 23: Diary entry on April 30, 2012 from EXAUDI/Cassidy rehearsal
 “Having the performers photograph their own 6 mouth shapes as a visual reference”

In its most basic and immediate conception, the practical manifestation of this question in a score would be an integration of two visual types of information: written/graphic signs, and photographs (or perhaps video). This approach would not prove elegant in the context of *Painter* for technical and esthetic reasons.³³ However, the idea itself has found expression in composer Neil Luck’s viola solo *CLUB* (2012),

33. There are at least two reasons why this approach would not make sense in the context of *Painter*:
 Firstly, it would be difficult to maintain the frequency of change in the notation of *Painter* while legibly representing (scaling) the photographic imagery without sacrificing and cluttering the visual economy of space in the score—something that Cassidy has gradually worked to reduce, attempting to “consolidate” (Cassidy 2013) the visually dense representation of notation evident in earlier work.
 Secondly, and more fundamentally, the relationship to Bacon’s smeared mouths suggests that, in fact, these discrete mouth shapes are not actually fixed positions/locations. Rather, they are liminal modulators of other physiological parameters that interact with each other, which in practice both produce warped and twisted formations of the vocalists’ mouths, and leave the performer to strive *towards* physical production in spite of conflict and a fidelitous impossibility of realization.

which overlays photocopied images of a hand onto a scalar melodic line to prescribe intersecting distorted physical gestures in the left hand (fig. 24),³⁴ and composer Timothy Cape's *My Favourite Bits* (2014), which involves musicians imitating and looping through a collected series of annotated photographs of the same musicians variously posing with their instruments/bodies (fig. 25).³⁵

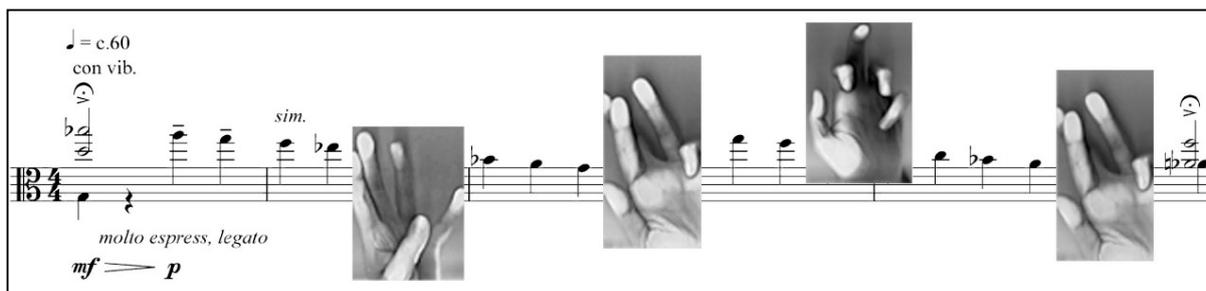


Figure 24: Opening measures of Neil Luck's *CLUB*
Reproduced with permission of composer

In my quintet for five trombonists with “musical bodies,”³⁶ *Still Singing Limbs* (hereafter *Limbs*), I have taken an approach to the use of photographic documentation similar to Luck. Three of the five musicians are given a photo score³⁷ that displays still frames from a video recording of trombonist Christian Lindberg performing John Cage's *Solo for Sliding Trombone* (1957–58).³⁸ There are two

34. Interestingly, as can be seen in the figure above, Luck repeats the photocopied images. At other points in the score (see system three) Luck isolates and musically develops portions of the images.

35. Less explicitly related to the physicality of performance, but still in line with the use of photographic means in a score is G Douglas Barrett's *A Few Marlenes (where have all the flowers gone?)* (2010), which quantizes still-frames from a 1972 video recorded performance that Marlene Dietrich gave in London. The movements of Dietrich represented in the still-frames are copied by a trio of performers at specified times.

36. This turn of phrase was an earlier (less technical and more poetic) conception of what I refer to in this commentary as “musicking bodies.”

37. The photo score is played back using a PureData patch made by composer David Pocknee.

38. See: Cage, John. 1957-58. “John Cage: Solo for Sliding Trombone.” YouTube. 8:28. Posted by “avn89pwe 的頻道.” February 10, 2010. www.youtube.com/watch?v=2diY6wC1Xs4.



**Figure 25: Voice part from version of Timothy Cape's *Favourite Bits*
for The Hermes Experiment
Vocalist photographed is H elo ise Werner
Reproduced with permission of performer and composer**

displays for the still frames: one in the “Present” position, and one in the “Future” position, which allows the performer to remember and anticipate images (fig. 26).³⁹ Standing in an immobile, statuesque posture, when a musician sees an image switch from “Future” to “Present” they are instructed to react immediately to the image—physically mirroring Lindberg’s posture and expression as closely as possible—and then instantly return to their original position.

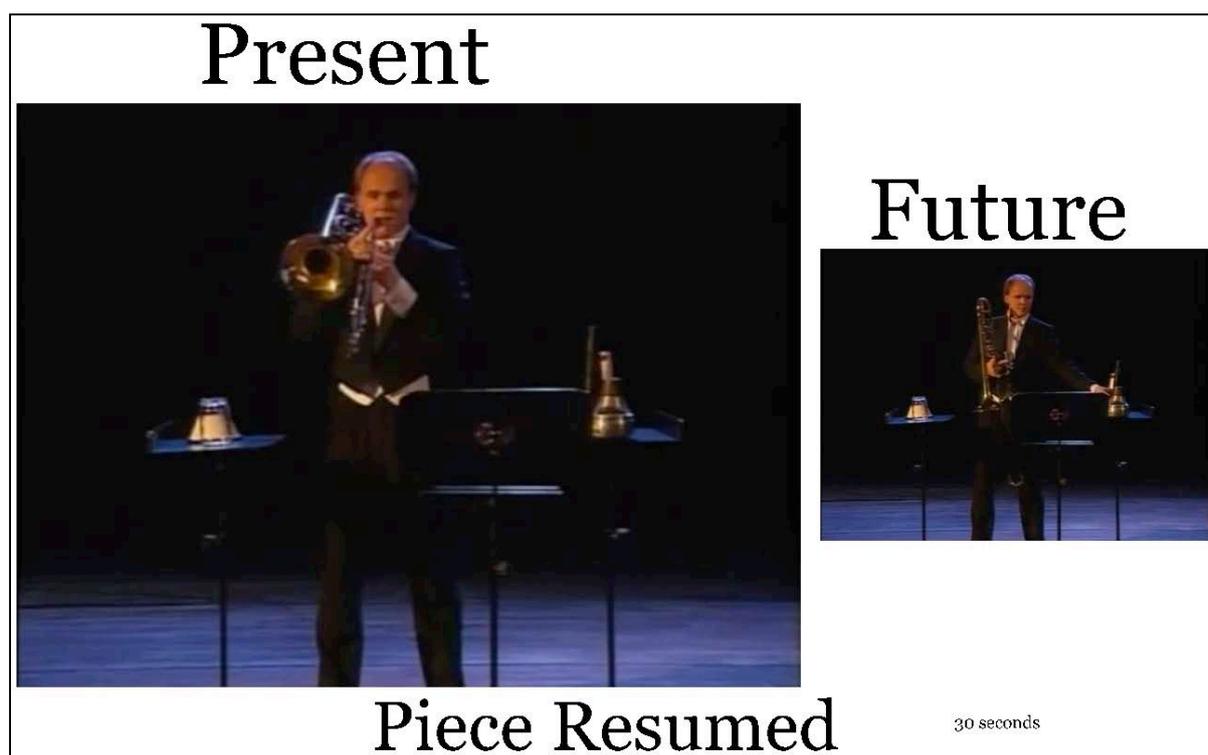


Figure 26: “Present” and “Future” images in Trombone 1’s photo score for *Still Singing Limbs* “30 seconds” indication marks how much time has passed since the beginning of the score

Performers develop an embodied knowledge of these images, which come to function like a reflex hammer that prompt action (Thomas 2009). This reflective reflexivity affects the performance of *Limbs* in a way similar to *CLUB*. The

39. A similar approach to simultaneously displaying an image of focus and an upcoming image can be found in Daniel Portelli’s piano solo, *Mapping Australia* (2014) where archival footage of video from the eponymously named film *Mapping Australia / Cartography in Australia* (1966) has been mapped to correspond with physical zones on the body of the piano. For more information on Portelli’s piece see: Portelli, Daniel. 2015. “Mapping Australia.” *CeReNeM Journal* 5. cerenem.ricercata.org/articles/mapping_australia/page01.html.

photographs interrupt the overall sonic trajectory of the three trombonists' performance, which is diastematically notated in a separate score (fig. 27) that they perform from memory. Two of the three performers play glissandos moving in contrary motion for eight minutes across the span of one partial, and the third holds a split-tone multiphonic. All three sonic trajectories are additionally interrupted by an extreme high-pitch tone at around halfway through the piece.⁴⁰

2.2.3. Development of Experiences

Coming back to the notion of documents-as-scores, I discuss three pieces that make use of video and audio scores. Each piece develops upon these two trajectories of experience, and are composed from the documentary remains of phonographically and photographically represented musicking bodies physically moving. These pieces are: *this is not natural* (hereafter also *Not Natural*), a trio for three performers with one instrument each (double bass, piano, and horn) plus individual video scores; *]HoldingOn[*, one piece for solo violin plus video score from a trio of pieces collectively titled *||: trouble letting go :|| –]HoldingOn[– 4 Echoes: whistle, whisper, gasp, silence*; and *BUZZED*, for solo horn plus audio score. The following two sections discuss:

- development and documentation processes;
- and reading skills developed with video and audio scores.

40. The trombone ensemble “les trombones de bale” commissioned and premiered *Limbs*. Members of the ensemble at the time of commission included: Jon Roskilly, Juna Winston, Kevin Austin, Mike Svoboda, and Stephen Menotti (see e.g. 11; n.b. title at the beginning of the video referenced here is based on the piece’s previous title *This is About Much More than Listening*).

To Be Memorized

Duration:
Trombones 1-3: 9 minutes
Trombones 4 & 5: as long as naturally possible

Instructions for interfacing with laptop in separate document.
Or any other high partial split-tone. Sustain. Breathe only when absolutely necessary.

Trombone 1

ppppp

1 Slide positions relative to glissando, not interjected material.
Breathe only when absolutely necessary over the course of glissandi.
Glissando ends when both thumbs 4/5 conclude.

Trombone 2

ppppp

7 Slide positions relative to glissando, not interjected material.
Breathe only when absolutely necessary over the course of glissandi.
Glissando ends when both thumbs 4/5 conclude.

Trombone 3

ppppp

7 Slide positions relative to glissando, not interjected material.
Breathe only when absolutely necessary over the course of glissandi.
Glissando ends when both thumbs 4/5 conclude.

Trombone 4

ppppp

Autonomous. Move onto next glissando relative to your lung capacity.

Trombone 5

ppppp

Autonomous. Move onto next glissando relative to your lung capacity.

Footnote:
* For the remainder of the piece, when the performer you are facing blinks their eyes, make a soft sucking sound through the mouthpiece. Continue to do this until trombones 1-3 have finished. Remain physically still for the duration of this period.

Legend:
Downbow mark = outward buzzing
Upbow mark = inward buzzing [pitch is inherently less precise - follow slide position carefully however]
Dashed slur mark indicates a return to slide position from previous glissando.
(There are effectively two glissandi intercurring each other)

Figure 27: Notated score from *still singing limbs*

2.3. Development and Documentation Processes

The following three sections detail the back and forth dynamic between piece development and documentation. Sections 2.2.1., 2.2.2., and 2.2.3. are listed twice: the first occurrence introduces the piece, and the second (indicated in parentheses) details the development and documentation process involved in composing the scores for that piece.

2.3.1. Development and Documentation of *Not Natural*

Not Natural uses video scores. The scores are composed of short video recordings that document a physical choreography between musicking bodies and their instruments, which I radically expanded from fifteen seconds to ten minutes. The piece was originally made for, and in collaboration with, musicians Tomoko Honda, Pieter Lenaerts, and Corey Klein of the ensemble Discord Workshop.

2.3.2. Development and Documentation of *]HoldingOn[*

]HoldingOn also uses a video score. It expands on the techniques of compositionally manipulating video recordings outlined in Section 2.2.1 to explore a pulse-based approach towards slow motion movement. The piece also takes a different approach towards the documentation process, having the performer take responsibility for recording actions based on instructions.

2.3.3. Development and Documentation of *BUZZED*

BUZZED uses an audio score. The piece and score emerged out of collaborative exchange with hornist Samuel Stoll. All the sounds in the score were previously produced by Stoll. As such, the sounds function as indexes of musical memories that prompt sonic and physical responses.

(2.3.1. Development and Documentation of *Not Natural*)

Development	Documentation
-------------	---------------

February–December 2013

Brainstorm Piece Ideas

I read Nicholas Brown's (2006) "The Flux Between Sounding and Sound." In it, Brown writes:

Etymologically, the word "performance" permits a sense of recovering from states in which we find ourselves before furnishing new states of being [Old French, "parfournir"]. And according to [John] Dewey: "Because experience is the fulfillment of an organism in its struggles and achievements in a world of things, it is art in germ." By way of illustration, Bill Viola's slowed-down, video images of human action show us that when our emotions take hold, we too enact a kind of performance in struggling to reclaim a stable sense of being. (Brown 2006, 41; citation suppressed)

I seek out examples of Viola's work and watch *Quintet of The Astonished* (2000; hereafter *Astonished*) In relation to Viola's work, Mark Hansen identifies an "in between[ness]" (cited in Noland 2007, paragraph 13) of facial expressions/emotions in the dramatically decelerated video.⁴¹ This leads to the following question:

Analogous to the granularity of time stretched audio recordings, could a deceleration of physical movement involved in playing an instrument reveal anything comparable to the in-between-ness of emotions in *Astonished*?

December 2013	Resultant Documentation
Laboratory with Discord Workshop	<i>Laboratory Video</i>
<p>I investigate playing instruments in slow motion with Discord Workshop. To demonstrate the type of slow motion movement in which I am interested, I show the trio an excerpt of Viola's <i>Astonished</i>.</p> <p>This investigation is carried out in relation to four kinds of gestures:</p> <ul style="list-style-type: none"> • sounding and physically still; • sounding and physically excessive movement; • silent and physically still; • silent and physically excessive movement. 	<p>Format:</p> <ul style="list-style-type: none"> • Video recording (recorded by me). <p>Recorded:</p> <ul style="list-style-type: none"> • Different sounding and silent gestures; • Guided improvisations; <ul style="list-style-type: none"> ○ Personifications of well-known performers on respective instrument.

41. See: Viola, Bill. 2000 "'Quintet of The Astonished' by Bill Viola (excerpt)." Vimeo. 2:00. Posted by "Urban Video Project." September 20, 2010. vimeo.com/15130088.

(2.3.1. Development and Documentation of *Not Natural*)

Development	Documentation
-------------	---------------

Observations:

- Compound gestures tend to produce the most sonically interesting results when subjected to bodily deceleration.
- When air is used to produce sound with the horn, the duration of a gesture is physically limited.
- The illusion of slow motion movement must spread evenly throughout the body.
 - Quick movements (such as page turns for instance) break full-body illusion.
- Musicians are able to perform gestures slower than normal—between quarter and half speed—but are unable to achieve, based solely on muscular instinct, the extreme degree of slow motion movement exhibited in the technologically dilated figures of *Astonished*.
 - Lenaerts notes that it is difficult to sense the duration and trajectory of a movement at such slow speeds.
 - We suspect that this is partially due to the musicians' practices of working within rhythmic and metric structures of subdivision.

Based on the observations:

- We decide to video record and time stretch the movements of each musician.
 - Time stretched videos would serve as video scores.
- This approach offers a way of keeping track of movements across space and time, and maintaining the illusion of slow motion.
- Working with video removes the need to manually turn pages.
- We also decide that the piece will present gestures at both normal and slow motion speed.

This investigation is video recorded and referred to as *Laboratory Video*.

December 2014

Review Laboratory Video

During this stage, I review and familiarize myself with *Laboratory Video*.

Editing:

- Trim *Laboratory Video* to isolate most interesting gestures based on sonic result and visual profile of physical movements;

(2.3.1. Development and Documentation of *Not Natural*)

Development	Documentation
	<ul style="list-style-type: none"> ○ Trimmed video for each musician is grouped together to form a “repertoire” of each musician’s gestures; ● Subject the recordings to radical time stretching (e.g. 12, 13, and 14).

December–January 2014**Construct Choreography**

After reviewing and playing with *Laboratory Video*, I construct a 15-second choreography that starts and ends in the same position. While constructing this choreography:

- I decide that the piece will present an immediate slow motion repetition of the choreography;
- I highlight points of energy transferal between musicians by easing in and out of (increasing of decreasing) the amount of time stretching.

January 2014**Record Devised Choreography**

To short-circuit the rehearsal process with the trio, and experiment with a working process that is, from conception to execution, driven by a logic of watching and looking at video, I worked with three colleagues at The University of Huddersfield (Beavan Flanagan, Braxton Sherouse, and Mark Codina) to video record a rough outline of the choreography.

This resultant recording serves as a document used with Discord Workshop to (re)constitute and refine the final choreography. This document is referred to as *Choreography Prototype* (e.g. 15).

Resultant Documentation***Choreography Prototype***

Format:

- Video recording (recorded by me).

Recorded:

- Rough enactments of choreography.

January 2014**Recording Session with Discord Workshop**

Meet with trio again to collect video recording documentation to compose the final score. I show *Choreography Prototype* to the trio and we spend the first day of a two-day period learning and refining the prototype.

This learned choreography forms what I refer to as the *Base Choreography*. The ensemble memorizes this choreography.

During the second day, I briefly video record the ensemble performing *Base Choreography*. I use these recordings as reference material only.

Resultant Documentation***Recording Session Video***

Format:

- Video recording (recorded by me)

Recorded:

- *Base Choreography*
- *Astonished Choreography* (e.g. 16)

Astonished Choreography is recorded from multiple angles to capture the most physically relevant interactions between musicking bodies and instruments:

Horn

- mute/hand in bell;

(2.3.1. Development and Documentation of *Not Natural*)

Development	Documentation
<p>The <i>Base Choreography</i> is altered in the following ways to produce a variant choreography referred to as <i>Astonished Choreography</i>:</p> <ul style="list-style-type: none"> • Musicians do not move their eyes (and heads) during the choreography. • An element of sonic surprise is introduced during a moment of sonic and physical stillness <ul style="list-style-type: none"> ○ This surprise momentarily (and reflexively) draws the musicians' faces away from the artificially fixed position. ○ The momentary startling produces an expression of astonishment. 	<ul style="list-style-type: none"> • body standing and sitting; • mouth and mouthpiece touching; • fingers depressing valves. <p>Double bass</p> <ul style="list-style-type: none"> • no key areas of focus. <p>Piano</p> <ul style="list-style-type: none"> • fingers on keys; • fingers on side of instrument; • fingers inside the piano.

We spend the second day recording *Astonished Choreography*. The final video score is composed of multiple takes/recordings of *Astonished Choreography*, referred to as *Recording Session Video*.

February 2014

Compose Video Score

<p>I compositionally manipulate <i>Recording Session Video</i> to make the final video scores (e.g. 17, 18, and 19).</p>	<p>Editing:</p> <ul style="list-style-type: none"> • I cut and splice recordings of <i>Astonished Choreography</i> so that the most important physical information of an action at any given point is visible. <p>Time stretching:</p> <ul style="list-style-type: none"> • Inspired by Bill Viola's <i>Astonished</i>, I radically time stretch <i>Recording Session Video</i> of <i>Astonished Choreography</i> to fill the duration of ten minutes. <ul style="list-style-type: none"> ○ A process of frame interpolation facilitates this time stretching. ○ Moments from this time stretched video are reaccelerated to highlight points where the ensemble "transfer kinetic energy" from one person to another. <p>Color adjustments:</p> <ul style="list-style-type: none"> • I change the <i>Recording Session Video</i> from color to black and white. • This color adjustment serves multiple purposes: <ul style="list-style-type: none"> ○ Compared with color video, it is my feeling that the video score "reads" slower when black and
--	---

(2.3.1. Development and Documentation of *Not Natural*)

Development	Documentation
	<p>white;</p> <ul style="list-style-type: none"> ○ What Auslander (2006) calls the “reality effect” (3) of the documentation is emphasized and strengthens the notion that what is seen in the video may have actually taken place at some previous point in time; ○ Additional color adjustments made by tinting the video stand out better; <ul style="list-style-type: none"> ▪ Blue tinting occurs in the horn part to indicate the activation of internal physical activity (air production); ○ The contrast between foreground and background is heightened, reducing tendencies to focus on areas outside perimeter of the body of the performer. <p>Overlays:</p> <ul style="list-style-type: none"> • Video of individual musicians is overlaid with a thumbnail of a group performance of the <i>Astonished Choreography</i>; <ul style="list-style-type: none"> ○ This thumbnail serves as a reference point for ensemble relationships across space.

(2.3.2. Development and Documentation of *JHoldingOn*)

Development	Documentation
<p>January 2016 Instructions for Making Documentation</p>	<p>Resultant Documentation <i>Zilberstein Videos 1, 2, and 3</i></p>
<p><i>JHoldingOn</i> emerged from a conversation with violinist Ruben Zilberstein. Our conversation focused on issues of loneliness and attunement. During our discussion, we decided to explore the use of a video score.</p>	<p>Format:</p> <ul style="list-style-type: none"> • Video recording (recorded by Nikiporenko and Zilberstein) <p>Emailed Recording Instructions:</p>
<p>Instead of producing the video recordings myself as I had during the documentation stage of <i>Not Natural</i>—enacting a kind of performance with the camera and producing “theatrical documents” (Auslander 2006, 1)—for <i>JHoldingOn</i> I partially ceded the responsibility of documentation to the performer. With <i>Not Natural</i>, the space of performance is insignificant, but in <i>JHoldingOn</i> I am interested in the spatial/personal significance of the video documentation and the affect it may have on the performer during the act of reading the score.</p>	<p><i>Hi Ruben,</i></p> <p><i>Could you send me some video of you tuning?</i></p> <p><i>I’d be interested in having three videos, all shot at the highest frame rate you possibly can.</i></p> <p><i>The audio quality is not important, but please do record audio with the videos.⁴²</i></p>
<p>For this reason, it was important that the performer have a personal connection with the process of producing their recordings. To guide this process, I emailed Zilberstein with instructions for situating and recording three videos (see column opposite).</p>	<p><u><i>Video 1</i></u> <i>A short close up video of the side of your heels on the ground as you tune in an unfamiliar (preferably large) space. The duration is dictated by the amount of time it takes between the beginning of tuning and the point at which you feel your heels being lifted up (or rather: you feel lighter and “picked up” by the resonance with the space).</i></p>
<p>Videos were made with assistance from Alex Nikiporenko. Resultant videos are referred to as <i>Zilberstein Videos 1, 2, and 3</i> (e.g. 20, 21, and 22).</p>	<p><u><i>Video 2</i></u> <i>A 5 minute full-body video of you tuning in a familiar place/space.</i></p>
	<p><u><i>Video 3</i></u> <i>A 5-7 minute close up video of the entire span of your violin’s strings, and both hands while tuning in an extremely small and claustrophobic-inducing space unlike any one that you have previously tuned in for these videos. During the course of this video, be sure to play some full bodied/force 3- and 4-string chords. Also, be sure to make contact between your left hand fingers and the fingerboard on occasion during this video. Finger contact onsets should range from delicate to extremely aggressive in force/pressure.</i></p> <p><i>Happy New Year,</i> <i>Michael</i></p>

42. Audio is referenced while editing video. It is removed from the final video score.

(2.3.2. Development and Documentation of *JHoldingOn*)

Development	Documentation
<p>January–February 2016 Compose Video Score</p> <p>I compose the video score (e.g. 23) using <i>Zilberstein Videos 1</i> and 3.</p> <p>In the end, <i>Zilberstein Video 2</i> only served as a reference of Ruben's body in general. For me, the recording did not contain enough spatial significance to warrant inclusion in the score.</p>	<p>The score for <i>JHoldingOn</i> also explores the use of variable playback speed.</p> <p>In contrast with <i>Not Natural</i>, <i>JHoldingOn</i> expands the complexity of the score in the following ways:</p> <ul style="list-style-type: none"> • Videos from different performances are layered; • A more intuitive use of background tints is employed to indicate local-level information about points of contact between the performer's body and the instrument; • Some graphic and textual information is included (fig. 28); • Trajectories of movement are broken apart by jump cuts; • Instead of interpolating newly fabricated frames between original frames after time stretching the video to create smoothly morphing movements/frames, the frames are not interpolated and instead variable spaced across time.

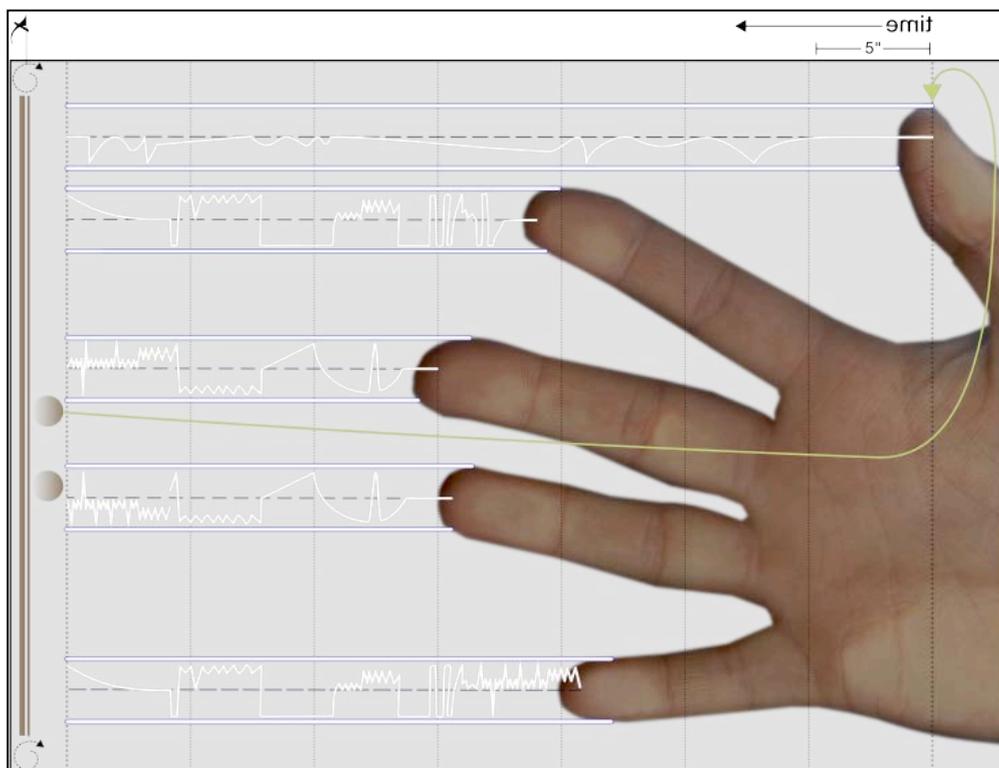


Figure 28: Graphic element of video score for *JHoldingOn*
See e.g. 24 for notes on how to read this image

(2.3.3. Development and Documentation of *BUZZED*)

Development	Documentation
October 2014–February 2015 Record a Vocal Improvisation	Resultant Documentation <i>Vocal Improvisation Audio</i>
Before my first meeting with Stoll, I record a vocal improvisation that serves as a way of generating, through performance, ideas for a collaboratively devised a piece. This recording is referred to as <i>Vocal Improvisation Audio</i> (hereafter VIA; e.g. 25).	<p>Format:</p> <ul style="list-style-type: none"> • Audio recording (recorded by me). <p>Recorded:</p> <ul style="list-style-type: none"> • While thinking about ideas of wetness, intimacy, and endurance, I make high pitched and squeaking vocal sounds through my barely- apart lips
February 2015 Conversation with Stoll	
During our first meeting, Stoll and I decide that we would like to explore the use of audio-signals to transmit musical information. We also discuss the idea of corresponding with each other by means of exchanging performances.	
February–May 2015 Exchange Performances	Resultant Documentation <i>Improvisation Emulation Audio</i> + several other audio and video recordings
<p>I send Stoll <i>Vocal Improvisation Audio</i> with the instruction to listen to the recording on headphones and emulate the sounds as accurately as possible with a horn. Stoll audio records an emulation and sends it to me. This recording is referred to as <i>Improvisation Emulation Audio</i> (hereafter also IEA; e.g. 26).</p> <p>In addition to this request, Stoll and I exchange several more recordings and instructions (e.g. 27). These exchanges allow us to become better acquainted as musical partners and shape our understanding of each other’s musicking personality.</p>	<p>Format:</p> <ul style="list-style-type: none"> • Audio and video recordings (recorded by both Stoll and I). <p>Recorded:</p> <ul style="list-style-type: none"> • Improvisation Imitation Audio; • Other audio and video recordings of performance emerge.
June 2015 Meet Stoll Again / Record Audio for Score	Resultant Documentation <i>Recording Session Audio</i>
I meet with Stoll again to record audio for the final score. These recordings are referred to as <i>Recording Session Audio</i> (hereafter also RSA; e.g. 28–34).	<p>Format:</p> <ul style="list-style-type: none"> • Audio recordings (recorded by me) <p>The recording session for collecting audio score material is carried out as a performed listening process:</p> <ul style="list-style-type: none"> • I listen to the VIA through headphones seven times; • Each time I listen I vocally emulate the sounds I hear; • My emulation are restricted by focusing on seven different physical • actions/behaviors: singing, buzzing, whistling, growling, vocal plosives/clicks, lip sucking, and breathing;

(2.3.3. Development and Documentation of *BUZZED*)

Development	Documentation
	<ul style="list-style-type: none"> • Each emulation is also an improvisation; • When I hear a sound in VIA that I can produce within the physically restricted/defined space I make sound; • Those sounds are sent through a microphone to headphones that Stoll wears while in a soundproofed room separate from me; • While I perform, Stoll watches my face/mouth through a glass pane and attempts to also imitate the physical movements of my mouth. <p>The seven performances of Stoll's imitations are audio-recorded and constitute the RSA recordings.</p>

July–November 2015**Compose Audio Score**

I use the IEA and the seven RSA recordings to compose the final audio score (e.g. 35).

The eight recordings are imported into a digital audio work station (DAW) for editing (fig. 29):

- All eight tracks are multitracked;
- Audio recordings are normalized, and amplitudes sculpted to bring out certain recordings in the mix at certain times;
- Silences in the tracks are cut to give a clearer visual sense of which track is active at a given point;
 - This is useful while working with the material and makes the DAW resemble a staved form of notation;
- Some compositional intervention takes place where I move the sliced bits of an audio track to a different time-point;
 - These interventions serve to sculpt a slightly more defined formal identity;
- Tracks are ambisonically spatialized using Matthias Kronlachner's (2016) ambiX plugin suite to place the sounds in more distinct locations in the score's "auditory scene" (Bregman 1990).



Figure 29: Working with *Improvisation Emulation Audio* (here, track 1: “HORN”) and *Recording Session Audio* (here, tracks 2–8) in the Reaper digital audio workstation. Red horizontal lines indicate structural markers and in some instances have been articulated by a momentary absence of sound in the score.

2.4. Reading Reflections⁴³

The remainder of this Chapter presents reflections on the type of score reading skills and techniques developed because of working with video and audio scores.

2.4.1. Video Scores

2.4.1.1. Filling in

In *Not Natural*, musicians begin their performance by re-enacting from memory the original fifteen-second *Base Choreography*. Upon returning to the beginning of the looped choreography, they turn their gaze towards the screen on their laptop where they encounter technologically dilated versions of “themselves” in the video score performing *Astonished Choreography* (e.g. 36).

The musicians are instructed to watch the score and attempt to copy their movements as precisely as possible. Movements subtly and glacially morph into each other. Their eyes rapidly and continuously scan (and rescan) the screen in search for minor shifts in movement that the musicians are able to register and translate from sight into a haptic experience that their bodies enact.

The temporal experience of reading the score is not dissimilar to the immediateness of reading discussed in relation to *Tenuous Awkwardness*. However, in the case of *Not Natural*, the medium of the score itself is intrinsically stuck in a state of “constitutive *partiality*” (Hansen 2014; original italics). The screen only ever displays a “partial image—a single pixel or dot of visual information is conveyed every four-hundred-thousandths of a second—in a continuous chain of electronic *scanning*” (Belton cited in *ibid.*; italics added); the image is “always in the process of coming into being” (*ibid.*), and “never fully present” (Auslander 2002, 48). However, because

43. This section relies on terminology and abbreviations established in the three previous tables.

the movements immobilized in the score are perceived as being iterated exactly the same way every time the score is played, “the pattern [of the score] exists [...] in [...] memory” (Viola 1995, 102).

This memory of the score is imbricated with Carrie Noland’s (2007) notion of a “kinesthetic ‘background’” (section 4). By way of Maurice Merleau-Ponty’s notion of “*fond*” (cited in *ibid.*)—the background memory of previously enacted experiences that mediate motor activity—the kinesthetic background can be considered the repertoire of movements that surface in bodies during a process of taking in visual information and generating a motor response to those images. In the case of *Not Natural*, the original performers are the same as the performers represented in the photographic video documentation; the score is made not only *with* the musicians, but also *from* and *of* them. This means that the musicians continuously draw from the original kinesthetic experiences that generated the score in order to complete, fill in, and embody-anew the always-partial, technologically distorted movements, an affordance that another set of performers would not have when reading the score (an issue I touch on in Section 2.3.3.).

This expansive filing in gives rise to a type of verticality (layeredness) in the reading experience. This is to say that the memories that remain embedded in the score, and new ones which accumulate each time the musicians read the score, produce a sedimentary knowledge of the score that forms around the bodies’ musicking memory as they continue to incorporate more and more detail into their mimetic (re)performance.⁴⁴ Similar to the “training chef that notices the master chef

44. The suffix re- is placed in parentheses to indicate the notion that the mimetic reading of the musicking bodies are drawing from reperformance practices (Dunkelberg 2005; Overton 2011; Widrich 2012; Wilcox 2012), but, because the original performance has been technologically

tap[ping] the knife on the edge of the board before rapidly copping onions, and carefully does the same” (Hamilton 2014, 2) the musicians engage in a type of “overimitation” (ibid.), seeking to copy the usually unnecessary, miniscule, and ancillary (Wanderly 1999) movements of performance made visibly perceptible by the slow motion stretching of the photographic video documentation.⁴⁵ Beyond filling in, they flesh out the score.

2.4.1.2. Seeing and Body Listening

A complimentary way of thinking about the reading experience is through the analogy of whole-body listening. Wanting to gain insight into how another set of performers would work from and read the documentary remains of *Not Natural I* conducted a workshop with Franc Chamberlain, Hilary Elliott, and Eilon Morris, three members of the drama department at The University of Huddersfield with backgrounds in movement practices. We devised another performance of the piece titled *this is not natural [transfiguration]* (2015) using the same video scores, rehearsal documentation, and a video recording of the first performance (e.g. 37).

distorted, the musicking bodies are not in fact re-performing a previously instantiated act.

45. It is beyond the scope of this commentary, but I find it interesting to note that Noland’s article also centers on the discussion of Viola’s slow motion video work. In the discussion, Noland recounts personal experiences of attempting to copy the movements of the five performers of *Astonished*. Beyond the speculative sense that there may be a tendency to attempt to copy slow motion physical movements, the observation that Noland makes that it was impossible to voluntarily reproduce the exact movements because they were too miniscule raises an interesting discussion regarding the motility of the performers with respect to the images they are attempting to reproduce.

On this note, I think it could be fruitful to consider Arthur Elsenaar’s project *Artificial*, in which the facial movements of a human face are artificially stimulated and moved through the use of electrical shock. Some of the facial expressions that are formed, while constituting a kinesthetic background of experience, are impossible to be voluntarily reproduced by human subjects without electronic means. This gap seems like a fruitful area for further research as it relates to music and mimetic scores. See: Elsenaar, Arthur. 2012. “Perfect Paul - On Freedom of Facial Expression [30c3].” YouTube. 29:06. Posted by “CCCen.” December 29, 2013. www.youtube.com/watch?v=8kLuhMghu_w.

After the workshop, I interviewed Chamberlain, Elliott, and Morris to obtain some perspective on their experience of the workshop (Baldwin 2015). During the workshop, we discussed the idea that, perhaps in addition to a kinesthetic background, movements were driven by the act of listening across the ensemble. On this point Elliott remarked:

although I listened with my ears, I “listened” more with my whole body, by which I mean I let the field of my attention spread out; listening became a whole-body receptivity to Eilon, Franc and my own physical/sonic presence. Listening in this way is a kind of sinking in through the skin to the entire surrounding. (ibid.)

This idea of listening as a means for “sinking in through the skin to the entire surrounding” finds resonance in René Lear’s work *Time Not a Video* (2014). According to Lear (2014), this work “challenge[s] the dominant mode in which we use slow motion video by engaging in a sustained daily practice of slow motion movement, conducted solely through a study of slow motion video.” The performance of *Time Not a Video* involves Lear giving a talk about slow motion video that is gradually stretched out bodily and orally as though Lear is being digitally processed/manipulated live in realtime.⁴⁶ As Lear writes, “this motion study investigates a space where there is no line separating that which constitutes human movement and that which constitutes video movement” (ibid.). The type of imbricated subjectivity suggested in *Not Natural*—the intersection of live performers, a score made from/of representations of the same performers, and a kind of “bodily affectation” (Cecchetto 2013)—is the crux of the work in *Time Not a Video*. Lear

46. *Time Not a Video* is paired with a video piece, *Renée Taking a Sip of Water (Human and Video in Motion)* (2013), which exhaustively demonstrates the differences between different means, digital and physical, of slowing altering rate of movement. Thanks to Beavan Flanagan for introducing me to this work.

I have also explored a similar use of time stretched media in one of my exploratory improvisations, titled *Sticky Singing*. Therein, I listen to a recording of my singing the traditional song “Michael Row the Boat Ashore” that I have subjected to extreme time stretching. While listening, I attempt to imitatively reproduce myself (e.g. 38).

“become[s] a video” (ibid.); by *listening*, video (logic) *sinks into* Lear’s body.

For me, Lear’s performance and Elliott’s response open up the idea that if the body in general can listen—that it can, as artist David Pledger describes, “register spatial and performative awareness” (Eckersall 2010)—so too could a specific part of the body: the eyes. This notion that eyes can listen—that they have ears—paired with a more explicit responsibility for “filling in” video, plays a critical role in the way that the video score for *JHoldingOn* develops upon the score reading dynamics described in relation to *Not Natural*.

2.4.1.3. Feeling Video Heatbeats in *JHoldingOn*

Before discussing *JHoldingOn* and developments in my work with video scores, it is worth pausing to make a distinction between musical and theatrical/choreographic performance in my work with slow motion video scores. Comparing the two realizations of *Not Natural* by the ensemble of musicians and the group of movement-based practitioners, a threshold reveals itself wherein, depending on speed of movement, the prioritization of musical gestures compared to theatrical or body-primary gestures shifts. Most notably, the sonic musicality of the gestures disintegrate the slower the bodily movements become, leaving theatrical modes of movement more present.

In Honda, Klein, and Lenaerts’s realization, the first 15-second passage of the piece is held together by both choreographic/musical structures and logics. In comparison to Chamberlain, Elliott, and Morris’s realization of the (nearly) identical passage, it is obvious that the musicians, indebted to musical practices of wielding their instrument and working within chamber music contexts, are, crucially, relating to each other in a musically structural manner. When the initial 15-second passage is

performed in its radically time-dilated form, musical relationships, gestures, and structures become so extremely dislocated/isolated that what is mostly left in the music's shadow is choreographic (and, by directing the musicians to unflinchingly face their heads/eyes towards a screen, theatrical) structure/cohesion.

Whereas the movement-based practitioners are absent of an embodied musical background for relating to each other—at least in relation to the instrumental props that they have been assigned—and physically struggle to navigate their instruments at normal-speed, their slow motion movements have a smoothness and cohesion not found in the musicians' slow motion movements. I would suggest that this smoothness is possible because, as the musical cohesion of the initial passage falls away and the physicality comes to the foreground, the movement-based practitioners' choreographic backgrounds and practices of prioritizing movements become musically unencumbered.

This comparison highlights one instance where one might draw a meaningful distinction between musicking bodies and bodies more generally, or at the very least of bodies with different collections of built up "repertoires" (Taylor 2003) of being. The work that I proceed to discuss regarding *JHoldingOn* points to ways in which the undifferentiated and entirely smooth space of the video score for *Not Natural* has been developed to inflect the medium of the score with a more musical sensibility without sacrificing the virtue of fluidity afforded by working with video.

While working with the video recordings used to make the score for *JHoldingOn* I spent more time working with variable time stretching rates. At certain points, the time stretching I was doing was so extreme that instead of smoothly interpolating new frames between the original frames, an original frame would instead freeze for a

moment and *drop* several frames before moving onto another frame. The overall trajectory of a movement took on a start-stop, pulsating rhythm. Curious to know what it might be like to copy movements without smooth playback, I tried to copy the movements and fill in the gaps myself. While doing this, I noticed a few surprising things.

The first was that it *felt* easier to read the score; it somehow felt more like the act of reading a notated score. I believe this is because I was able to *anticipate* when there would be a change from one position/frame to another, and how far apart in physical space each position would be from one another. The eyes were *not* engaged in a process of *continuously* scanning the entirety of the image; they were not performing in the now, looking for miniscule differences in movement, but were instead both reading ahead and playing catch up. This processing lag, or “interval” (Noland 2007), allows the reader to perceive noticeable changes. They quickly scan the image to take in important changes in positional information, and then move to the position last seen. The performer is able to interpolate the missing frames because they are retrospectively inferable in the context of movement trajectories.

The other peculiar thing that I noticed while imitating the freeze frame movements was that my wrists, fingers, and arms felt as though they were pulsating. It was as though there were hearts in my limbs, most likely because the freeze frames occurred periodically like heartbeats. These (heart)beats are divorced from “measures,” instead co-existing within fluid trajectories of movement. My eyes heard pulse ... they heard *rhythm*.⁴⁷ The rate of pulsation subtly changes and shifts speed

47. Although the effect is minimal and the score is of a different kind, David Janesko’s video score for *Natural Score 001* (2014)—a video of a “stream [of water] in a redwood forest in Northern California” (David Janesko, in conversation) with five overlaid lines that recall musical staves

in the score, which can be felt by these *hidden hearts*.⁴⁸

]HoldingOn[also aims to indicate with a greater degree of specificity the micro-gestures of performance that (although exposed by time stretching) remain flattened by the two-dimensional quality of video. One technique of indication includes the variable use of semi-transparent background tints. Background tints play a prominent role in indicating where and when the eyes are focused on different parts of the screen, where points of contact between the musicking body and the instrumental body are made, how much pressure/force is applied to the instrument by the musicking body, and what the general speed of movement is at any given moment.

Out of these varied uses, the indication of contact and force/pressure seems the most interesting to me. Background tints fade in and out of the background image, and, in contrast with the periodic pulsation of freeze frames, transition smoothly and continuously. The smooth trajectories of the tints work together with the striated trajectory of the pulsating freeze frames to help guide the quality of a performer's

and brings the video score into the realm of graphic score practices—by dint of what I assume to be an encoding process, has a slight, regular pulsating quality similar to the one I am describing above, which could be meaningfully interpreted in a performance of the piece.

48. Most scores I know that use videos of performance maintain smooth, quasi-realistic movement of the represented bodies. In some scores, movements are repeated and/or looped, there are jump cuts, or points of reversal create visual seams or breaks in the flow from one positional point to another. While these seams may have a pulsating recurrence, they are usually manifest in rhythmic seams in the sound of the performance. In contrast, what I am proposing I have discovered in *]HoldingOn[* is a way of feeling, through eyes that hear, rhythmic subdivisions of movement.

See the following list of pieces for a partial survey of the work being done within this field:

- James Fox, *Questioner, 1863* (2014-15); *Portals* (2015);
- Andy Ingamells, *Packaged Pleasure* (2015); *Bowmanship* (2015);
- Mário Del Nunzio, *Serenata Arquicúbica* (2008);
- Celeste Oram, *8 x ∞* (2015); *XEROX ROCK* (2015); *rupture | rapture* (2015);
- Daniel Portelli, *Mapping Australia* (2014); *Animal* (2015);
- Lee Chie Tsang, *'Yu Moi'* (2014).

See also: Oram, Celeste. 2016. "Three Video Scores and their Compositional & Notational Strategies." Master of Art thesis, University of California, San Diego.
<http://escholarship.org/uc/item/2rv043m7>.

interpolated movements. In order to allow the performer to focus on feeling their way through the score, I have attempted to make the varied uses of background tints intuitively understandable. This use of background tints increases the interpretative scope of the reading process beyond mimetic re-performance or re-production. In other words, I have attempted to enhance a highly prescriptive form of notation with descriptive forms of signification.

Both scores make physical choreographic actions to read during performance visible. My work with audio scores seeks to transpose the visibly signified into the invisible domain of sound.

2.4.2. Audio Scores

2.4.2.1. Indexical Sounds of Physicality

Jonathan Sterne's (2003) notion of "audile technique" (90) offers a useful stethoscope for hearing *BUZZED*. Audile technique is constituted by using the body as an instrument—extending on Marcel Mauss's notion of "techniques of the body" (cited in *ibid.*, 96)—of "developed and specialized practices" (*ibid.*). Accordingly, hearing and listening are "faculties" (*ibid.*, 94) for repeating activities and skills "within a limited number of framed contexts" (*ibid.*, 92).

During Sterne's discussion of audile technique as it relates to mediate auscultation and René-Théophile-Hyacinthe Laennec's stethoscope, a practice and device that rendered the interior auditory space of the body pertinent to the acquisition of medical knowledge, Sterne puts forward the notion of a "medical semiotics." Sterne writes: "if sounds were, indeed, signs of interior states, then it logically followed that the sounds and their meanings could be cataloged" (*ibid.*, 128). This semiotic system was designed for the "purposes of diagnosis" (*ibid.*, 130),

and fostered more generally the idea that “sounds are signs” (ibid.), that “they must indicate something” (ibid.).

As Sterne notes, this assemblage of a sonic semiotics as it relates to the body was positioned at the level of what philosopher Charles Sanders Peirce terms the “indexical” (ibid.) sign. Quoting Peirce, Sterne writes:

Indexical signs accompany their object in experience; an index is a sign “which refers to its object not so much because of any similarity or analogy with it, nor because it is associated with the general characters which that object happens to possess, as because it is in dynamical (including spatial) connection both with the individual object, on the one hand, and with the senses of memory of the person for whom it serves as a sign, on the other”. (ibid., italics suppressed)

As detailed in the table above, in the case of *BUZZED*, the IEA and seven RSA recordings that Stoll and I produced during the development process form the content of the audio score. Each of the seven RSA documents emerge from “transferals” of the original physical energies from the VIA recording that I sent to Stoll. As Cassidy (2008) writes, “[physically performed] actions can be transferred and displaced, resulting in entirely different sounds, and still be recognizably (sonically!) ‘the same’” (22). This assertion hinges on Cassidy’s claim that “sounds—whatever they are—are *fundamentally* linked to their concomitant physical action” (ibid.; original italics). In this sense, when Stoll reads the score, a type of “forensic listening” (Hamdan 2014) is practiced that offers a way of hearing the conditions that produced the sounds. In other words, each RSA track becomes a referent of physical action that, in relation to Stoll’s experience and memory of producing the sounds/recordings, renders the phonographic documentation into readable sound-signs (indices) that are material for composition.

2.4.2.2. Multiparametric Virtuosity

Because each of the RSA recordings is synchronous with the VIA recording, it is

possible to expand on the verticality of memory discussed in relation to *Not Natural*. By collapsing RSA documents over time in the virtual space of the audio score, various intensities of physical energy and significance in each recording come together with each other.

During performance Stoll listens to himself.⁴⁹ Stoll listens to the score with headphones and, in relation to the IEA track, is instructed to reproduce the horn sounds by any means possible. The IEA sound-signs are descriptive of the sonic result, rather than prescriptive of the means to produce that result. However, whenever Stoll hears one or more of the RSA recordings, the instruction is to reproduce the sound with the same exact physical means used to produce the sound in the first place. Were Stoll to read a single RSA document in isolation, the result would (theoretically) be an exact re-activation of the facial and vocal muscles cognitively indexed to the sound. However, by setting the seven RSA documents against each other simultaneously, each recording becomes one parameter within a physically multiparametric audio score.⁵⁰ Stoll is required to simultaneously reproduce the multiple past physicalities at the same time as accurately as possible. These multiple conflicting physicalities contort the physicality of each parameter and construct physical restrictions and limitations that affect the conditions for imitating

49. Literally, Stoll hears several recordings of Stoll's musicking body producing sound.

50. A similar approach to working with audio scores can be found in Beavan Flanagan's *No sweeter sound than my own name* (2015; hereafter *Sweeter Sound*; e.g. 39), a solo for vocalist and realtime electronic processing that was composed for, and performed by, me. In *Sweeter Sound*, the audio score is composed entirely of synthesized sounds that have been assigned to specific vocal parameters of production. These various sounds are overlaid in a multiparametric manner much like *BUZZED* or Cassidy's *Painter*.

Although the sounds that constitute the audio score are not recordings of my voice, the sounds that Flanagan has chosen to signify the different physical actions are derived from a series of vocal improvisations and exercises during a devising process with the composer. Therefore, for me anyways, the sounds also serve an indexical function.

the sounds heard in the IEA recording;⁵¹ the audio score pits descriptive and prescriptive signification against each other.

The sounds of physical actions not only coningle at the level of shared physical production space, forming modulations of performed physicality, but also share the same temporal and frequency space of the virtual recording. Although the score attempts to make each track/parameter distinct using digital ambisonic sound spatialization techniques, the interpreter must still disambiguate the collapsed strands of indexical sounds. Subverting James Lastra's (2012) models of *fidelitous* and *intelligible* (248) phonographic representation, I assert that Sterne's (2003) notion of the "virtuosic listener" (106) comes to rescue the reading situation in *BUZZED* from being thoroughly *unintelligible*. Sterne's virtuosic listener is able to "tune in and out at will" any sound exterior to their focus of attention (*ibid.*, 150). Much like the activity of visually scanning the surface of the screen in the video scores above, the listening experience of with the audio score is one of rapidly flicking between different parameters (perhaps even listening in a straddled and distributed manner) to identify whichever sonic signal is most pertinent to forming an indexical connection between sound and musicking body.

2.4.3. Bespoke Abstractions

Across the three scores discussed here, one facet to note is the degree to which the representation of performers is abstracted in the scores. In *Not Natural*, the musicians are clearly represented in the image. Their individual bodies have a mass

51. Another example of this type of parametric occlusion is evidenced by Evan Johnson's vocal solo *A general interrupter of ongoing activity* (2011), a piece in which the voice is set against itself. Whistles elide and distort sung pitches, and throat constrictions confine and obfuscate the flow of air, producing a voice that continually (yet delicately) trips over and into its self.

that would need to be considered by another set of performers. Other performers would need either to assume the weight of the represented bodies, or to compensate, finding their own center of gravity relative to the represented movements. In *[HoldingOn]*, due to the framing of the image, the identity of the musician is significantly abstracted, and any musician remotely practiced in playing the violin could easily read the score.

BUZZED, however, is distinct in that the audiophonic encoding and transmission of musical information renders the score almost completely abstract at the level of personal identification for anyone other than Stoll and I. The issue of using representative media to make performer-bespoke scores haunts the background of these “reading contracts” (Pédauque 2003, 24). This is to say that, because the score are reflectively bespoke for/of the people that they were made, different types of challenges would be raised for different interpreters.

In the case of *Not Natural*, future performers and interested audiences are able to gain some insight into how the original ensemble of musicians relate to their video scores by watching a video I made that documents the premiere and draws inspiration from a recent documentation practice of making “score following” videos.⁵² In these kind of videos, audio recordings of a performance of a piece are paired with a PDF of the score that changes pages at the same time as the recorded performance.

Already, this documentation practice presages a shift in the musicking activity of reading scores and has implications on the historical residue left behind and influence on future performances, interpretations, and realizations. This experience

52. Several examples of these type of videos exist, though the YouTube channel titled “Score Follower” is perhaps most appropriately named.

does not allow one to read a score alongside, yet separate from, the playback of a recorded performance—with the option and agency to dictate the visual direction of the reading experience from one part of a score to another part not being currently played back in the recording. For instance, these score following videos do not allow a reader to flip back or forward to any page. Instead, the reader is locked into, if not a complete one-to-one adherence of attention to recording and notational representation (with the reader still able to pay attention to previous/subsequent measures or notes, if not pages), the overall experience is, as channels for these videos are accurately titled, *following* the score in a usually moment-to-moment manner. In a way, they are reading along the same type of temporal flows detailed in my work with video scores, and even the type of extreme sightreading described in *Tenuous Awkwardness*.

This is through and through a form of video-logical reading. Moreover, the near lockstep between score and recording, I would speculate, has a significant influence on how future interpretations of a piece are evaluated. Accuracy in comparison to a previous recording, especially when that recording has been “sanctioned” by a composer and reinforced by multiple forms of documentation systems/contexts, has the potential to crucially influence the range of possible future realizations and imaginations.

As a testament to the reach of this documentary practice, I have been compelled to present *Not Natural* for an audience and potential set of

in a way that takes score *following* to one logical consequence. In my video documentation of the piece (e.g. 40), the video recording of the premiere is surrounded by the three musicians’ individual video scores, with the images from the

video scores fading in at the same point that they appear on the screens in performance. By presenting this piece in this way, an interested audience can start to gain insight into the reading situation that the musicians are engaged in during performance. Furthermore, future/prospective performers may be able to appreciate how the performers are reading the score and physically compensating for the gap between what is technologically possible with video and physically feasible with bodies.

A multichannel video also seems like the most appropriate place to simultaneously display performance and video scores. For similar reasons that I decided to not display the score for an audience during a live performance of *Tenuous Audience*, I believe that the physical energy created in the space of performance for *Not Natural* is of such a concentrated nature, that to display the video scores alongside the live (physically and spatially co-present) environment of performance would draw attention away from the very musical-choreographic way that bodies are performing.

In the case of *BUZZED*, it is an open question as to whether another musician would be able to read the score without having already established the indexical relationships that facilitate the reading experience. Another performer could perhaps build up a performance based on a verbal index of sound and physicality relationship. In this case, the use of video recordings to indicate the physical actions may be necessary (or at least helpful), especially since the visual stimuli were crucial in developing Stoll's cognitive associations between sounds and physicality.⁵³

53. In collaboration with Stoll, there is discussion of possibly presenting an audience and prospective performers with an interactive website that allows visitors to gain different perspectives and insights into the creation process. Visitors would listen to the original VIA and audio and/or

Regardless, I think it is safe to say that it would be nearly impossible for a performer to jump immediately into the “full score,” as it were (all eight tracks played simultaneously), without the performance reduced to an improvisation.⁵⁴

This issue of future performance notwithstanding, I believe that the reading experiences detailed in this section are in line with Sterne’s adaptation of “technique.” The theoretical implications of this assertion points to the idea that musicking bodies develop skills in order to read these score forms, and in my own experience these skills offer alternative ways of thinking about the act of reading performance (documentation) more generally, and form the springboard from which the following chapter explores the notion of documents as musicking bodies.

video record their own seven RSA recordings that they can then play with to compose their own version of an audio score for *BUZZED*. This form of presentation and engagement could in fact come to constitute a way for interested musicians to develop their own cognitive associations between the sounds of the score and physical actions.

54. In fact, jumping right into the multiple/simultaneous tracks of the audio score is precisely what Stoll did (was *able* to do) with the score. During rehearsals with Stoll, I changed the number of layers/tracks played back at any given moment, but this was a less than effective rehearsal strategy for Stoll. Instead, Stoll’s method of learning largely consisted in attempting to comprehensively understand the verticality of each performative moment.

One thing that we did find effective though was the occasional time stretching of the audio score. Stretching faster was useful for shifting the perspective of the normal speed score as slower than it first appears. Stretching slower made the horizontal axis expand and allowed for a more detailed examination of vertical relationships over time. Looping certain sections was also effective for solidifying a particular moment.

3. Being

And Knowing Antelopes

3.1. Introduction

This chapter builds on the theoretical implications of the score reading skills detailed in the previous chapter to shift again the stage of compositional manipulation from fixed documents of musical information to living embodiments of musical information in the form of musicking human beings and persons.

I begin by presenting two brief case studies in which, as a curator, I have applied the video and audio reading skills to audiovisual documents of performances under consideration for programming. By reading the people and their situation in these performances, I suggest ways for moving beyond the bespoke and self-reflective reading techniques of Chapter 2. I then proceed to consider the work of composer Luke Nickel who has variously approached human beings/persons as containers for/of verbal information. In particular, I focus on *[factory]* (2014), in which violinist Mira Benjamin is conceptualized as a “living score” (Nickel 2014), and which I have personally interacted with and performed. Following on from Nickel’s work, I discuss ways that human scores are staged and compositionally manipulated in my own work through a case study of *a kind of nostalgia* (2014; hereafter also *Nostalgia*), a guitar duet from the portfolio devised with guitarist Diego Castro Magaš.

3.2. Further Application of Score Reading Techniques

In addition to my work as a performer and composer, I have spent two years during this research period co-curating WEISSLICH, a concert series that presents work

happening at and around intersections of experimental music and performance art.⁵⁵

As a curator, I often engage with artists' work through video and/or audio documentation of performances. Over time, I have found myself performatively engaging with these documents.

These documents are distinct from the ones discussed in Chapter 2 in that they are not treated as compositional material subject to manipulation. This is to say that the media-specific quality of the documentation is not intended to influence how the documented performance is read. Nevertheless, thinking about and practicing the score reading skills discussed in Chapter 2 have conceptually allowed me to work with these documents in ways that focus on more generally reading the musicking figures encoded within as scores- themselves. I have written about this technique of reading twice for the "Better Know A Weisslich" article series, which offers prospective audiences to WEISSLICH insight into curatorial decisions and profiles featured artists. I present here modified versions of these articles to demonstrate the nature of this practice and set the stage for thinking of human beings as living documents-as-scores.

3.2.1. Faces Map Terrains of Listening⁵⁶

On the face of it, Carolyn Chen's *Adagio* (2009a) is a simple piece that presents an audience with a group of performers wearing headphones and making slow motion facial expressions for seven minutes. Specifically, during a performance of *Adagio*:

- A group of performers listen;
- They listen while wearing headphones;

55. More information on the concert series may be found at weisslich.com.

56. To read the first version of this section, see: Michael, Baldwin. 2016. "Better Know A Weisslich: Carolyn Chen." weisslich.com/2016/04/07/better-know-a-weisslich-carolyn-chen.

- They listen to sounds being sent through headphones;
 - With each performance, those sounds take the fixed form of an excerpted recording of Sergiu Celibidache's remarkably slow interpretation of the adagio movement from Anton Bruckner's Seventh Symphony (1881–83, revised 1885);
- While listening, the performers slowly move their faces (each an assemblage and territory of emotional expressions) alongside the recording;
- Their facial movements wander through the recording and translate, project, and give body to a simultaneously private and communal (amongst the performers) experience of listening.

Because headphones conceal the sound of the recording and Carolyn's facial guide is memorized/embodied, during the performance an audience is confronted with an "incomplete" picture of the work. The following diagram (fig. 30; see Figure 30 in accompanying folder of figures for larger image) illustrates the intricacies of the work that underlie *Adagio's* composition and performance. It also represents terminology I have adopted to construct a response to a question that I think this piece poses for a curator: What might it mean for an audience to be presented with unexplained and evocative facial expressions that are tethered to a silent/private listening experience that implies hearing/listening (sound)?

In search of an answer to this question, I have considered the idea that a presentation of this piece is an invitation to listen voyeuristically; it allows an audience to follow private and intimate emotional and facial relationships with some assumed sonic source. Relatedly, I contemplated the idea that the piece excavates bodily listening practices and reflects them back to an audience. However, both readings of Chen's piece subordinate the foregrounded facial expressions to an assumed and precise sonic referent, ignoring the fact that the headphones deliberately obfuscate an ontological sonic reality. Instead of assuming the headphones signify some specific sound(s), I became interested in the idea the headphones could more generally signify a type of personal listening experience that

is detached from any particular sound(s). To me, this shift in emphasis from facial expressions being beholden to some *particular* listening experience to a performer's facial expressions being related to listening *in general* restores primacy to the facial aspect of the work and imbues the facial movements with a sense of agency.

It seems appropriate to focus on the facial aspect of *Adagio* given the fact that a performance of the piece essentially documents Chen's facial wanderings through listening experiences of Celibidache's interpretation of the adagio movement of Anton Bruckner's Seventh Symphony (fig. 31). Chen describes an attraction to how Celibidache's interpretation "stretches phrases into environments" (Carolyn Chen; personal correspondence). In making *Adagio* I imagine Chen facially wandering through the Romantic landscape of Bruckner, retrospectively making notes from those journeys, and mapping them onto Bruckner's score to form a guided *dérive* (Debord 1955) for other listeners.

The image displays a musical score for the Adagio movement of Anton Bruckner's Seventh Symphony, with handwritten annotations and a timeline below it. The score is divided into two systems, with measures 10, 27, and 50 marked. The annotations include 'sensory, minimal' at measure 10, 'tense, unease' between measures 10 and 27, 'new concern' at measure 27, 'elevated' between measures 27 and 50, 'possible resolution' at measure 50, and 'yearning' below measure 50. A box at measure 50 contains the text 'mouth slightly open'.

Figure 31: Excerpt of the score for Carolyn Chen's *Adagio*

By sonically withholding the exact musical terrain trekked during a performance of *Adagio* and presenting only the performers' facial movements, I have the sense that the piece presents an audience with a living map for grafting—through emotional and facial steps, leaps, pauses, distractions, and fascinations—the terrain of Celibidache's environment onto the abstract experience of listening in general. Here, faces hear and modulate their environment. Through this logic, the performers of *Adagio* become scores for navigating future hearing (and listening) experiences.

To illustrate the full ramifications of this idea, I refer to an anecdote recounted by writer and theorist Guy Debord (1955) about “a friend [who] had just wandered through the Harz region of Germany while blindly following the directions of a map of London.” To be clear, what I am suggesting is that a performance of *Adagio* could be “détourned” (Debord and Wolman 1956); observers can read and utilize the performers as “psychogeographic maps” (Debord 1955) for listening to other musical or otherwise sonic environments. For me at least, this reading makes sense of the seemingly absurd situation of a “loud silence” in *Adagio*. It expands my relationship to the work involved in the piece; it expands my appreciation of the facial facets of performance in general; and, perhaps most importantly, it makes me excited to present this piece for an audience of other thinkers, movers, and feelers who will undoubtedly respond to the piece in their own unique way.

To test my proposition, I suggest watching Chen (2009b) alongside Clint McCallum and Ian Power as they perform *Adagio*, and copying their facial expression while listening to another piece of music or sound(s) at the same time.⁵⁷

57. See: Chen, Carolyn. 2009. “adagio - the wulf.” YouTube. 7:20. Posted by “Carolyn Chen.” August 2, 2009. www.youtube.com/watch?v=G54g-W8QFCc. I suggest that the reader mute the sound of the video to remove background hiss and audio bleed from the performers' headphones.

Alternatively, do the same with the equally intriguing video of Ensemble DieOrdnungDerDinge (2014), made in preparation for performances of Chen's *Adagio*, facially wandering through an excerpt of Richard Strauss' *Also sprach Zarathustra*.⁵⁸

3.3.1. Breathing Ears⁵⁹

Breath (2015) is a piece for alto flute collaboratively developed by flutist Ilze Ikse with composer Antonia Barnett-McIntosh. In a musical context, a breath can be understood as musical rest—a moment of repose. Inversely, breathlessness can take the form of exhaustion. *Breath* is (nearly) all breath; Ikse is required to, as Barnett-McIntosh (2015) notes, “utilize each in- and out-breath in the creation of sound.” This renders the performer and performance breathless, without musical rest, always intensely alive. The following is a description of how I listen⁶⁰ to and with *Breath*:

It starts with a breath in.

Ilze breathes in.
I breathe in.

When I listen to *Breath* I breathe. I breathe with Ilze, not simply alongside, but at the same time, for the same duration, and in the same direction. I switch between breathing through my nose here, my mouth there, exploring what it

58. See: Ensemble DieOrdnungDieDinge. 2014. “If you know what I mean -teaser-.” YouTube. 1:47. Posted by “Iñigo Giner Miranda.” February 19, 2014. www.youtube.com/watch?v=FAx8iti3O-E.

59. To read the first version of this section, see: Baldwin, Michael. 2016. “Better Know A Weisslich: Antonia Barnett-McIntosh & Ilze Ikse.” weisslich.com/2016/07/18/better-know-a-weisslich-antonia-barnett-mcintosh-ilze-ikse.

60. See: Barnett-McIntosh, Antonia. 2015. “Breath.” YouTube. 9:43. Posted by “Antonia Barnett-McIntosh.” November 16, 2015. <https://www.youtube.com/watch?v=hSb4vnAteEY>.

means to remain relaxed, sometimes switching between different ventilation circuitry responsible for the circulation of shared air, sometimes, somewhere, unsure whether I am breathing through mouth or nose.⁶¹ The physicalities of both bodies become emphatically sonified; I merge into the form of *Breath*, which is essentially a life form, a living form: Ilze's breathing body. I am stretched; breaths in *Breath* are not natural, they are extended and exhausting, sometimes uneven and strained. Other times, unrestrained, they swell, they compel, and they propel me forward; they excite my spectral inhalation and ...

Then there's this gap. [...] There's this kind of fascinating pause that comes at the end of an inhale, and it's this space where everything drops away. When you're giving it attention it's very subtle, but it's a moment of actual liberation. It's not when you are gripped in the inhale at the end of it, but it's more that gap that opens up just before the breath that is given. (Studio Olafur Eliasson 2013, Joan Halifax at timestamp 10:09)

... I exhale. Breathing abides by a rhythmic logic: in is followed by out is followed by in is followed by out, and so forth. Breaths reassuringly comfort even while their limits are pushed. They are a guide through, and glue to, the extraordinarily diverse range of sounds coaxed out of the instrumental prosthesis, an instrumentalized lung. Sounds that modulate and color my sensation of breathing, an upper harmonic that gently brushes up against a slight whistle passing through my nasal cavity, a deeply hollowed breeze that tugs my lips an inch wider. Sounds flicker at the threshold of stability and imbue my voice with a Barthian (1975) "grain [...] it granulates, it crackles, it caresses, it grates, it cuts, it comes: [it] is bliss" (67).

61. In addition to extending from the skills for reading audio scores discussed above, the work I did while constructing a realization of Charlie Sdraulig's solo voice piece, *few* (2013), has fundamentally attuned my body to a musical understanding of extended breathing. For more information on the process of realizing and performing *few* see: Baldwin, Michael. 2016. "Charlie Sdraulig, *few* (2013)," michaelbaldwincomposer.wordpress.com/charlie-sdraulig-few/.

When I engage with the human being in *Breath*, my mouth and nose become breathing ears. Ears that are hinges where “mind and body swing back and forth” (Studio Olafur Eliasson 2013, Evan Thompson at timestamp 02:45). Ears that turn listening into mutually exhaustive rest. Ears that hear and feel carnal being as musical being.

3.3. Human(s) Being Scores

3.3.1. [*factory*] an expanding situation

One strand of composer Luke Nickel's practice illustrates a possible consequence of the above readings of human beings as scores. Nickel compositionally conceptualizes and situates living human beings as embodied documents that contain, transmit, and “contaminate” (Benjamin as quoted in Gottschalk 2016, 217) recallable memories. Pieces that operate in this way include: *Made of My Mother's Cravings* (2014), [*factory*] (2014), *The Strange Eating Habits of Erik Satie* (2015), and *Who's Exploiting Who?* (2016). Alluding to the document-like nature of this practice, Nickel (2016) writes that this strand:

is centered around memory and the process of transmitting musical scores. In this practice, [...] the concrete document of the score [is] relocate[d] [...] to the unstable domain of the human memory. [...] This [is done] by communicating all the parameters found in traditional scores in ephemeral means such as unrecorded conversations or temporary audio files. By rendering the score unstable, [...] forgettings, mis-rememberings, and transformations [...] permeate the very fabric of the musical material.

Between 2014 and 2015 I worked with and twice performed [*factory*]. Extending from a tradition of using “verbal scores” (Lely and Saunders 2012) to communicate musical ideas encoded in the “literal” (Ong [1984] 2002) language of words, Nickel (2014) writes that the piece

originated as a set of 22 verbal [text] scores linked by a geographical map, with each score representing an individual conceptual area or room. Mira Benjamin, the original performer,

and I agreed upon a risky proposal: she would read the scores only once and then delete them, allowing the work to exist solely in her memory and inviting forgettings and linguistic permutations to infect the ephemeral score-object itself. Mira is now the living score for the work, voluntarily responsible for its transferral, transformation and translation.

I say that I worked *with* (rather than *on*) [*factory*], because a condition for reading the living score is that one personally interacts with Benjamin⁶² to “access” (Gottschalk 2016, 217) immaterial memories of the ephemeral score-object that Nickel authored.

Situating the score within this relational frame is similar to the “constructed situations” (Midgette 2007) of visual artist Tino Sehgal. Sehgal claims to “use the capacities of [...] people, and make them increasingly more complex” (as quoted in Sgualdini 2005). Accordingly, performers—what Sehgal refers to as “interpreters” (Pape et al. 2014, 1)—are responsible for embodying/enacting “scored” (Bishop 2012, 225) choreographies and conversation patterns/content in relation to other people. For example, in *This Situation* (2007) six interpreters are situated within a hall of a museum with “entirely white walls and no sign indicating who or what is in it,” and, depending on when people enter the same space, they move to and from a set of six choreographed *tableaux vivants*, recite anonymized philosophical quotations from memory, converse between themselves about the quotations, and occasionally engage the audience with the question: “Or, what do you think?” (Smith 2013).

Interpreters in Sehgal’s work are scores. They are scores that, as living archives that document set rules and social protocols, are situated into performances (positioned as immaterial objects), and which museums have become responsible for acquiring and preserving.⁶³ A slightly perverse way of thinking about Sehgal’s

62. I use Mira Benjamin’s last name interchangeably with the word “score” throughout this section.

63. Sehgal sells situations to museums through oral agreements. The museums are responsible to

scores would be to think of them as human embodiments of Ong's ([1984] 2002) "second orality" (3). They work from within the practices of literate culture to (re)produce performance in an oral manner. This is to say that they embody, to a degree, a culture of documentation that therefore allows them to be considered documents themselves.⁶⁴

In the case of Sehgal, the scores are, within a bounded range, interchangeable;⁶⁵ the idiosyncratic personhood of the score is not formally essential to Sehgal's work. This impersonality of the living archive is a feature of Sehgal's work that allows it to be re-embodied by a multiplicity of interpreters (and thus be preserved) for several years beyond the lifespan of any one interpreter.

For Nickel's [*factory*], however, the score is simultaneously a specific interpreter/person and continually (re)situated within performance. Gottschalk (2016) highlights both claims, noting that "what is remarkable about the working process of [...] Nickel [and composers Meredith Monk and Eliane Radigue] is that [...] the specific personhood of each collaborator [is drawn] into the content of the work," and that "the interaction is the score" (213). Commenting on the idiosyncratic form and personality of [*factory*]'s living score, Nickel has said,

I think creating [*factory*] was specifically about Mira [Benjamin] and her particular skills of conceptualization, realization, ultimate generosity, pragmatism. ... These characteristics if

creating the conditions in which the situations occur (Carpenter 2014).

64. An interesting, and more literal embodiment of Ong's secondary orality, can be found in the "Book People" of Ray Bradbury's *Fahrenheit 451* (1953) who are each responsible for committing to memory one book verbatim so that the information contained in the material books being set to fire in the dystopian society may immaterially remain. For a discussion of verbatim memory and oral culture, see: Ong, Walter. *Orality and Literacy*. New York: Routledge. 2002, 56-66.

65. Interpreters may include "museum staff members, gallery monitors, individual with varied backgrounds, and people of various ages and body types, but all must have the ability to generate thoughtful discussions on philosophy, political science, or cultural studies" (Carpenter in conversation with Raymond 2014, fn. 10).

divorced from the piece would not allow it to exist. (quoted in *ibid.*, 217)

The situation for reading the score of *[factory]* involves one-to-one conversations(s) with Benjamin. Conversations take place in domestic spaces,⁶⁶ are bracketed off by Benjamin to last for specific periods of time, and revolve around discussion of the rooms/layout/concepts of *[factory]*. In my interactions with the score, I have attempted to read Benjamin in a way that accounts for the its unique form.

In addition to being a container of memories, the score also has experience in presenting public performances of *[factory]*, and thus possesses a physical and musical (as well as verbal) memory of the piece. Again touching on Diana Taylor's (2003) notion of the "repertoire" (19; see Section 1.2.1.), I have approached Benjamin not as a living "archive"—a word associated with notions of fixity and objective authority (Schneider 2001, 100)—but rather as a living history of performed knowledge, a living (and musicking) repertoire. In this vein, in addition to oral dialog, our conversations have involved Benjamin performing for me on the violin (the musicking score's instrument of profession) sonically and physically evocative musical passages as a means of communicating/recalling memories.

In these reading situations, the score is required to perform (transmit) remembrance. Each instance and means of remembrance subjects the material to transformation and increasingly convolves the associations attached to those remembrances. By situating Benjamin in this way, Nickel has made a compositional decision that indeterminately affects the material content of the piece. Sehgal has succinctly summarized this interactive dynamic of the situation, saying, "there is no

66. The space of the reading situation is an aspect of Eliane Radigue's *Occam Ocean* series (2006-present) that Nickel (2016b) focuses one section on the "domestic situation" (32) of collaboration between Radigue and performers. I suspect that this element of the reading situation of *[factory]* is operating in resonance with Radigue's practice.

possibility not to act, so everything you do, even if it doesn't seem like acting, produces an *effect*" (quoted in Raymond 2008; italics added). However, *[factory]* is not a wholly indeterminate piece, and effects do not completely efface its form.

3.3.1.1. Score and/as Form in *[factory]*

Similarly related to Sehgal's embargo on any form of institutional documentation of situations—a decision aimed at putting into circulation immaterial objects, rather than material artifacts, of art-labor (Sehgal in Heiser 2005)⁶⁷—thus far, it has been decided by Nickel and Benjamin that, because the score ephemerally resides in/as Benjamin and the idiosyncratic way in which the score's memory remembers and changes, interlocutors/readers are restricted from discussing with others the content (transmitted memories) of these conversations. Transmitted transformations of the score form's "inscribed" material must be authored by changes in the score's own memory, rather than that of recipients.

At first, this restriction seems to terminate a discussion of the piece, and leaves one lost for how it would be possible to identify the formal content of *[factory]*. However, because, unlike Sehgal, Nickel does not discourage the documentation and circulation of performed realizations of *[factory]* (even going so far as to commission video-performance realizations), it is still possible to observe certain formal consistencies in and across *[factory]*. Furthermore, Jean-Michel Salaün (2014) appropriately enough refers to documents as "memory objects" (192), and thus it could be argued that the residual documents of performance function as

67. Sehgal does not allow for situations to be documented in an form. This includes "written agreements or certificates of authenticity, photographs, videos, sound recordings, scripts, transcriptions, wall labels, catalogs, and even press releases (Carpenter 2014, paragraph 16). However, despite these restrictions, Sehgal's work is still documented by audiences equipped with recording devices. The rejection of documentation is most effective at an institutional level in terms of resisting *legitimized* material objects circulating through the free market art economy.

expressions of a reader/performer's own mnemonic transformations of the reading situation.

Without revealing the content of interactions with the score (which are themselves designed to be *unremarkable*) it is possible to point to several commonalities between documented performances of *[factory]*. I would like to draw attention to two spoken verbalizations made by the score and represented in extant performance documents. The first is the opening passage of text in the piece's premiere:

Carefully designed durational experiments are promising tools. Mass customization is, really, the best way of delivering variety to consumers. Catalyst structures exhibit better catalytic activity toward the trends observed. Read on, and decide for yourself where the future of interfaces should be headed. Structure refers to the temporal aspect of theory.⁶⁸

The second is an audio recorded recitation played back at the end of my second performance (e.g. 41; see timestamp 16:56):

A [indecipherable] old man told me that a great philosopher once revealed to him that we are currently in the world at present. We have already been here. That many years ago, I was me, you were you, these people were these people and the others were the others. And, in many more years, when some great wheel turns, I will be here ... me standing here, you sitting there. Me speaking, and you listening. And I will have been me, will once again be me. And you who will have been you, will once again be you. And these people, who will have already been these people, will once again be these people. And the others who will have been the others will again be the others. And these words which I say to you, which will have already been these words, will again be these words. It will seem to you, that you have heard them before just as it now seems to you that you have heard them. Angelo Belloco, aka Ruzzante, 1535

Both instances involve the score speaking and are also evident in transformed, rearranged, and scrambled ways in *[factory] a long rope*, a commissioned realization made by video artist Angela Guyton (2016).⁶⁹ In every documented

68. This transcription is taken from an audio documented performance of *[factory]* given by Benjamin and percussionist Isaiah Ceccarelli in 2014. See: Nickel, Luke. 2014. "[Factory] Mira Benjamin + Isaiah Ceccarelli." SoundCloud. 16:29. Posted by "Luke Nickel." November 17, 2014. <https://soundcloud.com/lukejnickel/factory-mira-benjamin-isaiah-ceccarelli>.

69. Reference timestamps 00:00-01:35 and 03:17-04:12 / 08:45-10:54 for echoes of the score in: Guyton, Angela. 2016. "[factory] a long rope." Vimeo. 11:12. Posted by "Rodrigo Constanzo."

performance of *[factory]* thus far, Benjamin, the musicking score, is featured in one way or another.⁷⁰ Beyond mere similarities of spoken content, what emerges from observing the performance documentation is that Benjamin is not only a living repertoire of *[factory]*'s memory responsible for preservation and transmission, but indeed, as Guyton's video composition demonstrates, articulates and is the formally indeterminate and permeating essence of *[factory]*. As it currently stands, Nickel's observation that the piece would not be allowed to exist detached from Benjamin remains true; the memory of *[factory]*—of Benjamin—is expanding.

3.3.2. a kind of nostalgia

I have also worked with human beings as embodied documents of memory in my practice. My guitar duet, *Nostalgia*, devised with guitarist Diego Castro Magaš, stages two living repertoires within a reading situation that an audience witnesses.

For *Nostalgia*, two guitarists sit facing across from each other (fig 32). One must be a trained guitarist able to perform from memory a piece of music from the guitar repertoire. The other may be a trained or untrained guitarist who is responsible for manipulating the movements of the other guitarist. During performance, the guitarist responsible for recalling their physical and musical memory of the guitar repertoire

May 2, 2016. <https://vimeo.com/165020986>.

70. During my first performance of *[factory]*, Nickel was present. During this performance, I had Nickel listen to an audio recording of an interaction between Benjamin and I in which the score reveals descriptions of the rooms. At various points during the audio recording, I had overlaid instructions to repeat aloud what was being heard. Nickel was confronted with a situation in which instructions to re-iterate the authored ephemeral score-object via the form that it had been embedded in potentially violated the dictum that the transmitted content of the score not be spoken aloud outside of a reading situation. During these moments, Nickel was required to make decisions about whether or not it was appropriate to re-speak the score.

The ethical aspect of adhering to Nickel's own restrictions are problematized in this performance. Although there is a rich discussion to be had on this point, I raise it here to merely to indicate that in that performance as well, Benjamin was indirectly involved and thus formally constituent.

plays multiple repeated iterations of the piece they have selected. At different points during the iterations, the guitarist sitting opposite moves their body and instrument.



Figure 32: Mirrored staging of *Nostalgia*
Castro Magaš on left, and me on right

According to a loosely structured trajectory for the overall performance, these movements, by varying degrees, are awkward and contorted. Predominately, the untrained guitarist does not produce sound. The trained guitarist peripherally looks at these movements while maintaining constant eye contact with the other guitarist's eyes. While performing the selected piece, the trained guitarist attempts, at the same time, to mirror the movements that they are able to see. In other words, the "moving guitarist" is read like a living score that modulates the movements, and thus the sounds, of the other guitarist.

My initial discussion of this piece references performances given by Castro Magaš and I. As such, Castro Magaš is the trained guitarist responsible for recall, and I am the read moving/living score. I then proceed to discuss the way that another duo of performers has interpreted and constructed a realization of *Nostalgia*. Out of these discussions, I reflect on the forms that the score for and of *Nostalgia* do and could take.

3.3.2.1. Observing Castro Magaš as Initial Document

It is possible to trace the origin of *Nostalgia* back to some initial observations I made of Castro Magaš during a concert of solo guitar music. Before that concert, Castro Magaš had approached me about writing a piece. Notes from my observations were taken with the intention of generating ideas for the piece. Much like Suzanne Briet's ([1957] 2006) antelope—an example of an initial document that, by being situated and studied within a zoological context, spawns secondary and tertiary documents (11)—Castro Magaš was treated as a document situated with the context of the concert hall. My study of this document focuses on its defining and idiosyncratic “ancillary gestures” (Wanderly 1999) and performance mannerisms. Many of these notes were instrumental in producing secondary and tertiary documents of Castro Magaš's body. The secondary document takes form in my body as the living score, which amplifies and distorts Castro Magaš's performance mannerisms, and the tertiary document is the video recorded premiere of *Nostalgia*. The following figures (figs 33–35) present images and a transcript of my initial observations.

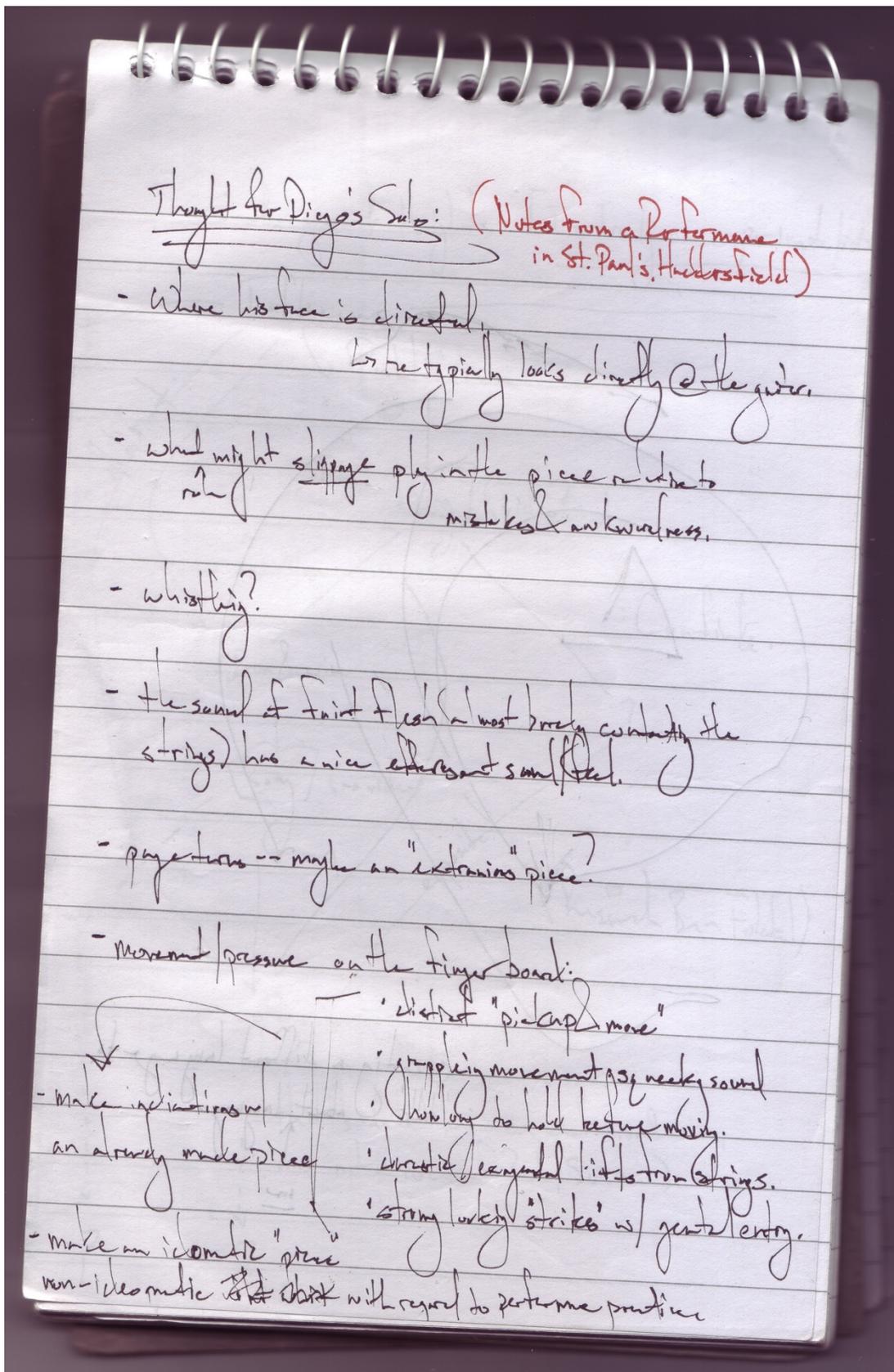


Figure 33: initial observations of Castro Magaš during performance; page one

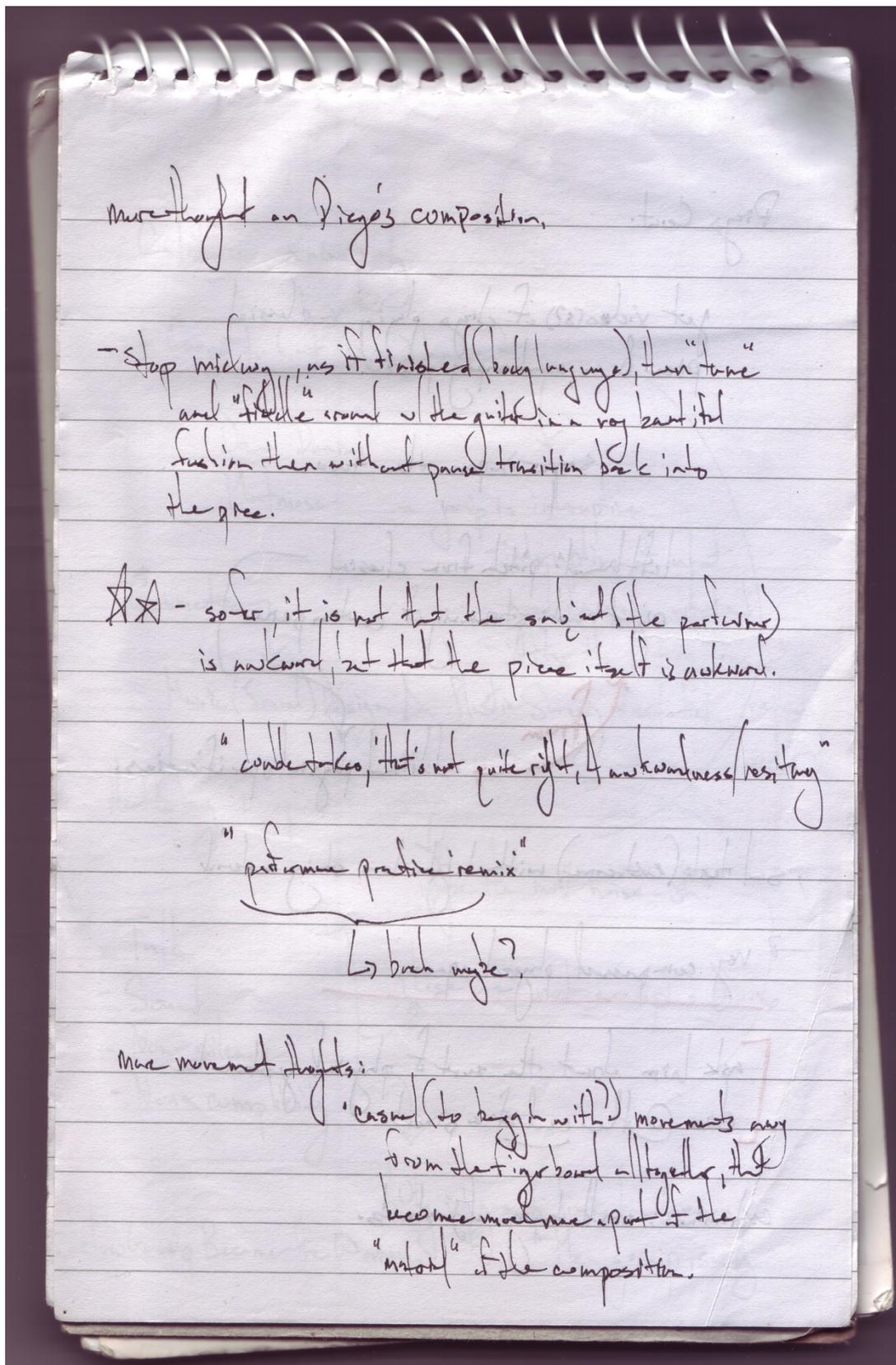


Figure 34: Initial observations of Castro Magaš during performance; page two

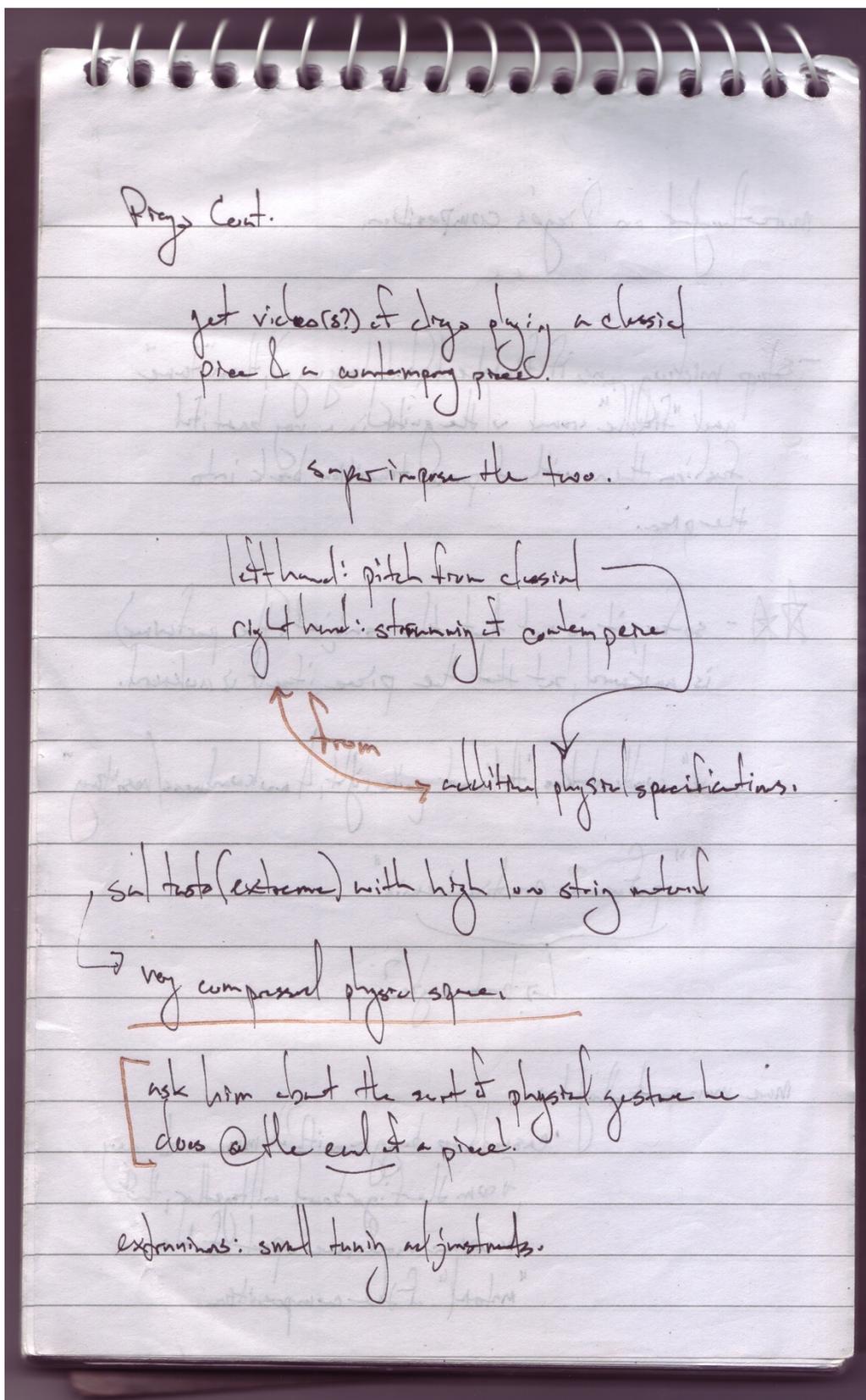


Figure 35: Initial observations of Castro Magaš during performance; page three

Unedited Transcription of Figures 33-35

where his face is directed.
 he typically looks directly at the guitar.

what role might slippage play in the piece relative to mistakes and awkwardness[?].

whistling?

the sound of faint flesh (almost barely contacting the strings) has a nice effervescent sound/feel.

page turns - maybe an "extraneous" piece?

movement/pressure on the fingerboard:

- distinct "pickup and move"
- grappling movement: squeaky sound
- how long to hold before moving
- drastic/exaggerated lifts from strings
- strong looking "strikes" with gentle entry

[aside]: make indications with an already made piece

make an idiomatic "piece" non-idiomatic with regard to performance practice

stop midway, as if finished (body language), then "tune" and "fiddle" around with the guitar in a very beautiful fashion then without pause transition back into the piece.

so far, it is not that the subject (the performer) is awkward, but that the piece itself is awkward.

double takes; that's not quite right; awkwardness/hesitancy

performance practice "remix"
 bach maybe?

more movement thoughts:

- casual (to begin with?) movements away from the fingerboard altogether, that become more a part of the "material" of the composition.

get video(s?) of diego playing a classical piece and a contemporary piece. superimpose the two:

- left-hand: pitch from classical
- right-hand: strumming of contemporary

[note on lefthand]: take additional physical specifications from right-hand material

sul tasto (extreme) with high low string material
 very compressed physical space.

(ask him about the sort of physical gesture he does at the end of a piece!)

extraneous: small tuning adjustments

3.3.2.2. Reading and Engaging with the Initial Document: or, Development of *Nostalgia*

After taking these notes, I met with Castro Magaš to discuss some of the ideas that had emerged from my observations. At first, I wanted to find a way of superimposing two performance practices, each tethered to one hand of the guitarist. The idea was to separately video record Castro Magaš performing two drastically different pieces of music from the guitar repertoire: one Baroque, Classical, or Romantic; and the other contemporary. The left hand, which is predominately involved in defining pitch, would be recorded while playing a piece from the earlier repertoire, and the right hand, predominately involved in articulating and rhythmically placing the left-hand pitches, would be recorded while playing the contemporary repertoire. The two videos would be displayed at the same time on a split screen, and Castro Magaš would read and perform both hands simultaneously.⁷¹

While this approach would have likely produced an interesting piece, by isolating and focusing on just Castro Magaš's hands, this compositional approach neglected the rest of the bodily and performative mannerisms that I felt compelled to take note of during my observations. To redress this physical absence and maintain the idea of superimposed physicalities, we decided that my body could function as a score that Castro Magaš reads during performance and which modulates the entire body. Furthermore, by using videos alone, the fixity/repeatability of the score would reduce the potential for a reactive awkwardness that remained of interest to me after my work on *Tenuous Awkwardness*; by treating my body as a score, the means of

71. Although the recorded footage of the piece is not taken from separate and distinct repertoires, Mário Del Nunzio's *Serenata Arquicúbica* (2011) presents an example of this strategy, at various points going as far as to split the video-image into four, presenting the two feet and two hands as independent physical parameters of performance. This practice can be clearly linked to Klaus K Hübler's (2008) practice of decoupling the left and right hands in notation for string instruments.

manipulating the document that is Castro Magaš's musicking body becomes more flexible and dynamic.⁷²

Because it is now evident that I will be required to perform alongside Castro Magaš during performances of *Nostalgia*, from this point on, we decide that we will meet regularly to devise⁷³ the piece. This devising process focuses on determining what piece Castro Magaš will play, and thus be distorted; and how, what, and when my body will signify.

3.3.2.2.1. Instant Recall (Playing by Heart)

Because Castro Magaš is required to look at my body-as-score during a performance of *Nostalgia*, it becomes necessary to play without any objects obstructing Castro Magaš's view. This rules out the possibility of a supplementary score. Thus, whatever musical material *is* played needs to be performed from memory. Furthermore, because my movements will command Castro Magaš's attention and modulate bodily movement, it should be possible for Castro Magaš to instantly recall the material without hesitancy. In contrast to the transformational function of remembrance in *[factory]*, Castro Magaš's recollection of musical and physical memories in *Nostalgia* should be precise and consistently reproducible. Two

72. My use of the term musicking here highlights the fact that compositional manipulations and engagements to/with the document in *Nostalgia* are always happening to the document during an act of music making.

73. To devise is to collaboratively develop, through rehearsal and discussion with performers, a performance project. Composer Michael Picknett (2014) distinguishes between “group” and “directed” devising (10) to define two categories of devising practice. The group approach involves each member of the collaborative process taking equal responsibility for the outcome of the process. The directed approach involves a single person taking responsibility for the overall direction of the process/project (ibid.). Although Castro Magaš plays a critical role in defining the overall process of this project, my role as a composer and score involves making large-scale structural decisions and thus the devising process for *Nostalgia* would fit into the category of directed devising.

immediately obvious solutions allow for this instant recall:

- devise guitar material based on physical patterning and repetition;
- select a piece of music that the performer has an intimate, almost second nature, relationship with.

Wanting to focus on Castro Magaš's history of performance, we proceed to explore the second option. Castro Magaš proposes two pieces of material: the Prelude from Johann Sebastian Bach's *Suite in C minor BWV 997* (circa 1740), and Exercise 17 from Fernando Sor's *24 Exercices très faciles Op.35* (circa 1826). These are both pieces that Castro Magaš can perform "by heart."

Our explorations involve Castro Magaš playing either one of the pieces and me improvising movement gestures that amplify and stretch Castro Magaš's own performance mannerisms.⁷⁴ During these improvisations, it becomes clear that there exists a threshold of physical complexity whereby my movements no longer noticeably affect the sound or physicality of Castro Magaš's playing. In relation to the two pieces of material put forward by Castro Magaš, the performance of Bach is too physically demanding to be meaningfully modulated by my movements. The Sor, however, has a degree of physical simplicity that allows Castro Magaš to focus attention on my movements and makes the modulations therein affective.

3.3.2.2.2. Composing my Body as Secondary Document

Once we determine that Castro Magaš will play the Sor during performances of *Nostalgia*, we work on defining the gestures and structure of the piece. In other words, we begin work on composing the score, "composing my body." This work involves defining how/what my body signifies (gestures) and when it signifies

74. To facilitate this devising process, I request that Castro Magaš video records performances of the Sor (e.g. 42) and Bach. Reviewing these videos allows me to continue to study Castro Magaš's body in a way similar to my initial observations.

(structure).

We arrived at gestures through continued rehearsal and improvisation. The gestures eventually comprise a set of movements that affect the general movement of Castro Magaš, mask and transform certain aspects of musical material, and change the base tempo of performance. These gestures include:

General movement

- Movements of facial muscles, head and neck, shoulders, elbows, and legs.⁷⁵

Material masking and transformation

- Movement of strumming hand along the axis of the bridge;
 - results in *sul tasto* and *sul ponticello*;
- Lifting fingers away from strings;
 - changes finger pressure and produces harmonics;
 - visually exaggerated to be clearly read by Castro Magaš;
- One or both hand(s) freezing in space;
 - indicates masking of musical material relative to each hand;
 - during these moments of freezing, the temporal unfolding of the piece does not cease; when a hand is unfrozen, Castro Magaš immediately jumps ahead to the point in the music that would currently be being played had the physical action not been halted.

Tempo alterations

- Backward and forward pivoting of the back;
 - indicates deceleration and acceleration of tempo respectively.

As stated above, during the course of a performance of *Nostalgia*, I variably embody and enact the above gestures.⁷⁶ We design the trajectory of the performance such that the gestures increasingly deteriorate the source material. To this end, we decide to repeat the Sor multiple times. At the beginning, the Sor is presented on its own,

75. Legs were not an originally defined gesture, but during the second performance of *Nostalgia*, I did not make use of a footrest, and thus my legs involuntarily shook. Interestingly, this gesture resulted in very noticeable vibrations in the sound of the performance.

76. Before the first performance, I made a video recording of the different physical gestures that Castro Magaš and I defined (e.g. 43). With this video, Castro Magaš is able to rehearse the piece without needing me to be present. It is agreed that Castro Magaš will turn on the video recording and move through different portions of the Sor at random. This randomization functions to familiarize the body with the various contortions that it may be placed in during performance, without coming to rely on a fixed sequence of gestures.

without any bodily manipulation, and then reiterated three more times.

During the first performance of *Nostalgia* I took the approach of sitting motionless with my eyes closed while listening to the first iteration. Towards the end of that iteration, I gradually “came to life,” and encountered a bodily producer of the sound.⁷⁷ In the second performance of *Nostalgia*, however, I started the performance as an active, yet still immobile, body on stage. My role during the first iteration was to scan Castro Magaš’s performance visually (akin to the initial observations detailed above) and then reflect back onto Castro Magaš stretched, distorted, and amplified physical manifestations of the gestures I observed.⁷⁸ In the second performance especially, the staged reading situation is made explicit.

3.3.2.3. An Annotated Tertiary Document and Multiple Forms of the Document

The video recording of the premiere has been texturally annotated to detail how my body, as a score, was read by Castro Magaš and shaped the physicality of performance during the premiere of *Nostalgia* (e.g. 46). Structural considerations and dynamics of the situation are also noted in the annotated video.

Altogether, this annotated video, the plain video recording of the premiere, a practice video score featuring my body moving through a collection of developed physical gestures that define the “secondary document” (the score), and a verbal text

77. This confrontational encounter is manifest in another project from the portfolio. My duet for two whistlers, *Whistles Whittle* (2014), brings to bodies in close confrontational proximity to each has them each whistle in an out for extended durations (e.g. 44) Outside of my work, imitative confrontation is found in composer Celeste Oram’s *Mirror & Echo* (2013). In this piece, the imitation is purely visual, with the violinist and violist instructed to wear noise-canceling earphones that impede their ability to hear what the other is playing.

78. My amplification of Castro Magaš movements are also affected by my relationship with my body and instruments. For an example of one such relationship, see my exploratory improvisation Keith Jarrett’s *Influence* (e.g. 45), which was inspired by reading Jairo Moreno’s (1999) article, “‘Body’n’Soul?’: Voice and Movement in Keith Jarrett’s Pianism.”

that details the process that was carried out in constructing the premiere realization, form the set of tertiary documents that are sent to performers who want to devise their own realization. In this way, the overall documentation of (and document set involved in) the first realization of *Nostalgia* are the score materials that future musicians read and interpret. In nearly all of these documents, my aim is to find a way of revealing different sides of my own bodily engagement with the materials of the piece as I understand them. For me, whoever takes on the role of the secondary-document-as-score would ideally form a realization that attempts to embody me-as-score.

Beyond mandating that I be the sole score—that future interpreters of the piece “rent” me—this distributed approach towards representing the dynamic nature of the living score in *Nostalgia* is the closest way of reaching my desired result on this issue. However, because I do not currently demand that I be the only score for every performance of *Nostalgia*, and future scores/performers are becoming a document-as-score through these various mediums and documents, it is inevitable that future musicians responsible for devising realizations will ultimately produce significantly different versions of the piece. It presently remains an open question for me whether I deem it necessary that I be the sole score for the piece. The main question at stake here is in terms of defining for myself what the bounds of realization are, beyond which a performance of *Nostalgia* would be pushed over into another distinct piece.

In addition to the two performances that Castro-Magaš and I have given, a duo of performers, Coleman Goepfert and Juna Winston (a guitarist and trombonist respectively), have taken on the task of devising their own interpretation of *Nostalgia*. Winston takes on the role of the living score, whereas Goepfert is the trained

guitarist reading Winston. For their realization (e.g. 47; rehearsal footage), Goepfert decides to play Francisco Tárrega's *Lágrima*, a piece which not only has a similar formal structure, but is also a standard classic in the guitar repertoire. Working from the tertiary documents of *Nostalgia*, Goepfert and Winston go through a similar process of devising their realization, and coming to terms with how they move through and construct a trajectory of change across multiple iterations of the Tárrega prelude.

In an email correspondence with the two musicians, both provide interesting observations on how each of them worked with these documents. Goepfert notes that they both "agreed on the key gestures mainly based on having the video score." Nevertheless, Winston writes that,

[...] since so much of the piece is inherent on us learning each other and feeling out the gestures and the rates of response, and so forth, relying too much on the audiovisual feedback of the old performance, even with the annotations from the video score, felt more mimetic than musical. Reacting to the text and the ideas you gave us to explore, in tandem with the physical experimentation we did over the three days, is more similar to me to how I attempt to engage with any piece.

Both musicians note that they did perceive Winston as a score, but also arrive at the same interactive dynamic that Castro-Magaš and I arrived at, writing that at a certain point during the devising process, both musicians began to see each other as scores, though, as Winston notes, with "differences in layers and types of complexity for each of us."

While the realization that Goepfert and Winston devised is still within the realms of what I would consider to be the piece *Nostalgia*, upon reflection on the recorded examples of Goepfert and Winston's realization and rehearsal, I find myself still uncertain whether it is necessary for me to restrict the form of the score to being only myself, and disallow the interpretation of these tertiary documents. Or, alternatively,

if I should still maintain this distributed approach towards score form, but encourage musicians to actively take a more mimetic approach towards their engagements with the documents. Moreover, I am left considering the idea that I should let go and allow the piece to develop in a range of different ways, based on having different access points into the work and different interpretive practices. On this issue, I am still undecided. For that reason, until I make my ultimate decision, I have opted for presenting all the multiple tertiary documents as a way of constructing realizations of *Nostalgia*.

4. Conclusions

What Remains?

4.1. Introduction

This thesis set out to illustrate three general compositional approaches for working with documents and/of/as musicking bodies. The type of documents and the ways that I have worked with them have emerged from artistic concerns/practices related to individual projects. In order to facilitate a comprehensive and multi-dimensional understanding of the wide range of approaches evidenced in my portfolio of work discussed herein, I have presented and developed the concept of documents-as-scores. Starting with the proposal that some notated scores be considered as one type of musical document, I draw from various definitions of documents to expand the notion of documents-as-scores to include:

- physical and digital formats inscribed with chirographic and/or typographic musical notation;
- video and audio recordings encoded with representations of physical/musical performance actions;
- and situated living human beings/persons with the capacity to recall verbal, physical, and musical memories.

The three general approaches to working with these documents have included techniques of effacement, reflection, and being. Throughout, I demonstrate the ways that these approaches establish new means for manipulating and compositionally engaging with music documents by focusing primarily on the bodily facets of musicking practices. The structure of the chapters in the commentary is reflective of the three key approaches to documents-as-scores that I have explored. As such, in this conclusion I review each approach and speculate as to further research inquiries.

4.2. Effacing

This approach to music documents treats physical and digital objects/formats inscribed with notation as materials that are subject to compositional manipulation and engagement. This is to say that I demonstrate ways that I have used my own musicking (composing) body to approach “documents as form” (Pédauque 2003, 3) as stages upon which I can perform and record compositional actions of cutting, erasing, and smudging. These techniques of effacement are examined in relation to two case studies of pieces from the portfolio.

The first case study looks at ways of physically handling sheet music through an experimental practice of building a repertoire of engagements with scissors. This study considers ways that composition can be retrospectively approached in relation to recorded performances of score-as-document effacement. The composition that I produced from this process, *Découpage*, serves as a document in itself (cutting itself) of its own compositional process. This document presents an integration of documentary remains that affect and interact with each other on both visual and sonic levels. Of particular note from this integration is the technique of convolving the sound of scissors with the sounds of toy piano samples in order to embed into the sound of the composition a cutting away of tone.

The second case study presents an attempt to construct relational awkwardness between a performer and scores. This attempt is discussed in relation to my voice solo *Tenuous Awkwardness*. For this composition, Braxton Sherouse built a score-editing application named Ensmudgifier that allowed me to treat digital representations of musical notation in ways similar to those discussed in the previous case study. The application records certain rules, patterns, and performed

gestures that serve as data for generating realtime scores displayed on screens. Data is stored in such a way that each time a generated score is played back the score will behave (visually display itself) in a slightly different, but recognizably familiar, way.

The dynamic nature of the generated scores, and the instability of the effacements therein, construct a tenuous relationship of expectation between the performer and their score. In performance, performers read from newly generated scores that intermittently deviate in sometimes noticeable ways from the score with which they have become familiarized. This case study points to two instances in the premiere of *Tenuous Awkwardness* to demonstrate the ways in which relational awkwardness is manifest as a result of dynamic digital effacement and defamiliarization.

4.3. Reflecting

This approach to musical documents looks and listens for ways that past and constructed performances of musical movement/action can be reflected by musicking bodies in acts of (re)performance. Here, documents function as “signs” (ibid) to be interpreted by performers. Documents of performances, such as audio/video recordings of musicking bodies in motion are compositionally manipulated and transfigured through means of radical time stretching, overlaying, and superimposition. In line with a reflective engagement with past performances, the scores that emerge out of this approach are often intended to be read by the musicians who were originally recorded. This is to say that the scores are performer-bespoke, made *of* performers.

This approach necessitates a sensitization to the ways that photographic and

phonographic representations of performance are produced from processes of documentation, which subsequently affect how performance can be read and experienced. Reflecting on mediated representations and speculations, I variously detail my own experience, and the experience of other performers, while engaged in reading audio/video scores. Furthermore, I present approaches to documentation relative to three pieces from the portfolio to demonstrate the relationship between compositional intention and document-forms used.

A unique feature of my approach here is the way that the working process is imbricated with the means of documentation. For instance, in the case of *Not Natural*, working from video recordings of improvised and structured choreographies is the primary means for developing the final score/performance. Similarly, in *BUZZED*, the collaborative development process between Stoll and I is constituted almost entirely by exchanging audio and video recorded documents of performance. Furthermore, the specific process for generating the audio score for *BUZZED* involves a process of listening to (selectively reading) audio recordings to generate a collection of related audio recordings that I virtually superimpose and spatialize to compose the final score.

4.4. Being

Instead of situating the musicking body in the fixed form/stage of video/audio recorded documents, this compositional approach situates the body within human-to-human interactions that take place in domestic spaces and concert halls. Here, human beings and persons become documents-as-scores in the sense that they are embodiments and “mediums” (ibid) of scores. The compositional work involved in this approach is comprised of defining, identifying, and devising situations in which

human/person-based scores recall verbal, physical, and musical memories.

This situatedness of performers is arrived at through extending the score reading skills and techniques developed in Chapter 3 to two readings of documented performances that I considered as part of my role as a curator. These two illustrations demonstrate the ways that humans can perform with, and emphatically relate to, documented musicking bodies. Expanding on these readings, I present composer Luke Nickel's work with living scores who are responsible for verbal remembrance and recall. In this study, by way of considering visual artist Tino Sehgal, I distinguish between human beings who serve as living archives of information and human persons who function as living repertoires of musical memory. From the framework of treating human persons as embodied documents, I review documented performances of Nickel's [*factory*] and assert that the personhood of the score becomes an essentially formal element of the piece/work prone to situationally-provoked indeterminate variation.

I conclude by examining the ways that I have worked with living scores in my guitar duet *Nostalgia*. By observing guitarist Diego Castro Magaš during a recital of solo guitar music, I define the formal characteristic of his musicking body (as a document) that I compositionally manipulate through bodily movement/imitation. Carrying out a process of devising, Castro Magaš and I construct a performance situation that stages two musicking bodies reading each other in relation to distinct and superimposed performance practices. This is manifest by bringing Fernando Sor's guitar music into contact with my own reflections and amplifications of Castro Magaš's idiosyncratic performance mannerisms.

4.5. Future Inquiries

The portfolio of work discussed in this commentary has been brought together through a focus on how performances/performers are documented and subsequently treated as compositional material. However, this is an artificially and retrospectively constructed perspective on my practice. Rather, the contour and trajectory of my artistic practice has been far from tidy or planned, often flicking between several different artistic fascinations at any given time. Furthermore, for the most part, each project, composition, or performance has required a bespoke approach that takes into account the specific performers with whom I have collaborated. As such, it is difficult to determine how my future artistic work will respond to this research inquiry.

However, this notwithstanding, it is possible to speculate as to what my future inquiries could be. Perhaps perversely enough, or simply as the result of having spent the last four years working in these ways, I think that this research calls for a more fundamental questioning of the necessity, or at least purpose, of documentary preservation. Even though this practice is constituted by documents of ephemeral happenings used as material for composing, many (in fact all) of the document-forms utilized within are prone to material obsolescence, some sooner than others. If this is true, and if it is taken by others to be the case that this practice has value for paving a way for new compositional practices and relationships, then what to make of the possibility that an objective and fixed body of documentary remains will most certainly eventually expire and/or be inaccessible?

While this thesis does not address this issue directly, it is my feeling that, implied throughout, is an acceptance of lifespan and a skepticism of “authenticity” (Leech-Wilkinson 1984). Moreover, I think that this practice, especially the work with living

scores, suggests that there may be a progression occurring within some cultures—aided by a restructuring of human consciousness due to the document saturated/imbricated era of today—in which it is not deemed necessary to hold on to these documentary remains so fastidiously. Rather, by embracing a process of becoming-document (in the expanded sense of the word “document” put forward in this commentary), the human subject is increasingly capable of being composed, and thus act and be situated, along lines of musical thinking.

To me at least, this possibility is one consequence of this research that I find potentially troubling. There is a certain degree of responsibility towards the subjectivity of musicking bodies that I consider when treating humans/persons as scores (either in living or fixed recorded form, and each form accompanied by their own set of considerations). This said, and without wanting to appear pessimistic about what I believe to be an exciting horizon of compositional innovation developed in and around this research, I do have hesitations about moving forward in the way that I have thus far.

Although the musicians/performers that I have worked with during this period have all been more than willing to engage in these compositional treatments of their body, with many finding the experience to be uniquely pleasurable, I am not entirely convinced that the compositional engagements and approaches evidenced in the submitted portfolio present working practices that are either sustainable or could actively resist more problematic approaches to working with “documented musicians.” For this reason, and without wanting to make the focus of compositional work *about* ethics—as has ostensibly been made the case in some relational (visual) art practices (Bishop 2012)—I think that, should I continue to develop this line of

research into the use of documents-as-scores, I would feel compelled to more thoroughly and deliberately engage with the complicated and tangled realm of ethics.

Bibliography

Articles, Books, Dissertations, Theses

- Ablinger, Peter. 2008. *HÖREN hören / hearing LISTENING*. Heidelberg: Kehrer.
- Alegan, Brian. 1991. "A Model for the Pitch Structure of Webern's Op. 23 No. 1, 'Das dunkle Herz'." *Music Theory Spectrum* 12 (2): 127–46. doi:10.2307/745895.
- Allen, Jennifer. 2005. "Einmal ist keinmal': Observations on Reenactment." In *Life, Once More: Forms of Reenactment in Contemporary Art*, edited by Sven Lütticken, 211–13. Rotterdam: Witte de With Center for Contemporary Art.
- Auslander, Philip. 2006. "The Performativity of Performance Documentation." *A Journal of Performance and Art* 28 (3): 1-10. doi:10.1162/pajj.2006.28.3.1.
- . 2008. *Liveness: Performance in a Mediatized Culture*. London: Routledge.
- Baldwin, Michael. 2012. "Reflections on Ephemerality and Notation in My Recent Work." Masters Thesis, University of Huddersfield.
<http://eprints.hud.ac.uk/17538/>.
- . 2015. "Performers' Insights into *This Is Not Natural [transfiguration]*." *CeReNeM Journal* 5.
http://cerenem.ricercata.org/articles/questions_performers/page01.html.
- . 2016. "Better Know A Weisslich: Antonia Barnett-McIntosh & Ilze Ikse." *WEISSLICH*. <https://weisslich.com/2016/07/18/better-know-a-weisslich-antonia-barnett-mcintosh-ilze-ikse/>.
- . 2016. "Better Know A Weisslich: Carolyn Chen's *Adagio*." *WEISSLICH*. <https://weisslich.com/2016/04/07/better-know-a-weisslich-carolyn-chen/>.
- . 2016. "Charlie Sdraulig, few (2013)," michaelbaldwincomposer.wordpress.com/charlie-sdraulig-few/.
- Barthes, Roland. 1975. *The Pleasure of the Text*. New York: Hill and Wang.
- Bishop, Claire. 2012. *Artificial Hells: Participatory Art and the Politics of Spectatorship*. London: Verso.
- Bourdieu, Pierre. 1986. *Distinction: A Social Critique of the Judgement of Taste*. London: Routledge.
- Bradbury, Ray. 1953. *Fahrenheit 451*. Ballantine Books.
- Brecht, George. 1991. *Notebooks I – II – III*. Edited by Dieter Daniels with collaboration of Hermann Braun. Cologne: Walther König.
- Bregman, Albert S. 1990. *Auditory Scene Analysis: The Perceptual Organization of Sound*. London: The MIT Press.
- Briet, Suzanne. [1957] 2006. *What is Documentation?: English Translation of the Classic French Text*. Translated by Ronald Day. Lanham, MD: Rowman & Littlefield Publishers.
- Brown, Nicholas. 2006. "The Flux between Sounding and Sound: Towards a Relational Understanding of Music as Embodied Action." *Contemporary Music Review* 25 (1–2): 37–46. doi:10.1080/07494460600647410.
- Buckland, Michael K. 1997. "What Is a 'Document'?" *Journal of the American Society for Information Science* 48 (9): 804–09.
- Carpenter, Elizabeth. 2014. "Be the Work: Intersubjectivity in Tino Sehgal's *This objective of that object*." <http://www.walkerart.org/collections/publications/performativity/be-the-work/>.
- Cassidy, Aaron. 2008. "Determinate Action/Indeterminate Sound: Tablature and

- change in Several Recent Works.” In *Facets of the Second Modernity: New Music and Aesthetic in the 21st Century 6*, edited by Frank Cox, Clas-Steffen Mahnkopf, and Wolfram Schurig, 17-32. Hofheim: Woked Verlag.
- . 2012a. “What’s the Point?: The Composer’s View.” <https://exaudi2012.wordpress.com/2012/04/27/whats-the-point-the-composers-view/>.
- . 2013. “The String Quartet as Laboratory and Playground for Experimentation and Tradition (or, Opening Out/Closing In).” *Contemporary Music Review* 32 (4): 305–23. doi:10.1080/07494467.2013.808410.
- Cecchetto, David. 2013. “In Response to Renée Lear’s ‘Renée Taking a Sip of Water (Human and Video in Motion)’ | the Occulture.” <http://www.theocculture.net/in-response-to-renee-lears-renee-taking-a-sip-of-water-human-and-video-in-motion/>.
- Concannon, Kevin. 2008. “Yoko Ono’s *Cut Piece*: From Text to Performance and Back Again.” *PAJ: A Journal of Performance and Art* 30 (3): 81–93. doi:10.1162/pajj.2008.30.3.81.
- Connor, Steven. 2001. *Dumbstruck: A Culture History of Ventriloquism*. Oxford: Oxford University Press.
- Cook, Nicholas. 2001. “Cook, Between Process and Product: Music And/as Performance.” *Music Theory Online* 7 (2). <http://www.mtosmt.org/issues/mto.01.7.2/mto.01.7.2.cook.html>.
- . 2013. *Beyond the Score*. Oxford: Oxford University Press.
- Craenen, Paul. 2014. *Composing under the Skin: The Music-making Body at the Composer’s Desk*. Leuven: Leuven University Press.
- Cusick, Suzanne G. 2012. “Towards an Acoustemology of Deterntion in the ‘Global War on Terror’.” In *Music, Sound and Space: Transformations of Public and Private Experience*, edited by Georgina Born, 275–91. Cambridge: Cambridge University Press.
- Day, Ronald E. 2014. *Indexing It All*. Cambridge, MA: The MIT Press.
- ddmmyy. 2016. “Interview with Laurie Tompkins.” <http://www.ddmmyyseries.com/Interview-with-Laurie-Tompkins>.
- DeBoer, Amanda. 2012. “Ingressive Phonation in Contemporary Vocal Music.” Doctoral dissertation, Bowling Green State University.
- Debord, Guy. 1955. “Critique of Urban Geography (Debord).” <http://www.bopsecrets.org/SI/urbgeog.htm>.
- Debord, Guy and Gil Wolman. 1956. “A User’s Guide to Detournement.” Accessed September 23. <http://www.bopsecrets.org/SI/detourn.htm>.
- Derrida, Jacques. 1996. *Archive Fever*. Chicago: The University of Chicago Press.
- Design Observer. 2016. “Collage Culture: Nostalgia and Critique. An Interview with David Banash.” <http://designobserver.com/feature/collage-culture-nostalgia-and-critique/38187>.
- Dunkelberg, Kermit. 2005. “The Wooster Group’s *Poor Theater*.” *The Drama Review* 49 (3): 43–57.
- Dyson, Frances. 2014. *Sounding New Media: Immersion and Embodiment in the Arts and Culture*. London: University of California Press.
- Eckersall, Peter. 2010. “BODY & LISTENING—interactivity.” <http://www.notyet.com.au/project/ampersnd-dresden/body-listening-an-essay>.
- Edgerton, Michael. 2015. *The 21st-Century Voice Contemporary and Traditional*

- Extra Normal Voice*. 2nd edition. Lanham, MD: Rowman & Littlefield Publishers.
- Ertzscheid, Olivier. 2013. "L'homme, un document comme les autres." *Hermès, La Revue*, no. 53 (October): 33–40.
- Foster, Hal. 1994. "What's Neo about the Neo-Avant-Garde?" *October* 70: 5–32. doi:10.2307/779051.
- Freeman, Jason. 2008. "Extreme Sight-Reading, Mediated Expression, and Audience Participation: Real-Time Music Notation in Live Performance." *Computer Music Journal* 32 (3): 25–41. doi:10.1162/comj.2008.32.3.25.
- Goehr, Lydia. [1997] 2007. *The Imaginary Museum of Musical Works*. Oxford: Oxford University Press.
- Goodman, Steve. 2012. *Sonic Warfare: Sound, Affect, and the Ecology of Fear*. Cambridge, Massachusetts: MIT Press.
- Gottschalk, Jennie. 2010. "Donaueschinger Musiktage 2010 (3/3)—Peter Ablinger: Wachstum Und Massenmord." *Sound Expanse*. <http://www.soundexpanse.com/donaueschinger-musiktage-2010-33%e2%80%94peter-ablinger-wachstum-und-massenmord/>.
- . 2016. *Experimental Music Since 1970*. London: Bloomsbury.
- Hamdan, Lawrence Abu. 2014. "Aural Contract: Forensic Listening and The Reorganization Of The Speaking Subject." *Cesura//Acceso*. <http://cesura-accesso.org/issues/aural-contract-forensic-listening-and-the-reorganization-of-the-speaking-subject-lawrence-abu-hamdan/>.
- Hamilton, Antonia F. de C. 2014. "Cognitive Underpinnings of Social Interaction." *The Quarterly Journal of Experimental Psychology* 68 (3): 417–32. doi:10.1080/17470218.2014.973424.
- Hansen, Mark B.N. 2014. "Video Installation Art as Uncanny Shock, or How Bruce Nauman's Corridors Expand Sensory Life." In *Transmedia Frictions: The Digital, the Arts, and the Humanities*, edited by Marcha Kinder, and Tara McPherson, 291–315. Oakland, CA: University of California Press.
- Hargreaves, David J., Jonathan James Hargreaves, and Adrian C. North. 2012. "Imagination and Creativity in Music Listening." In *Musical Imaginations*, edited by David Hargreaves, Dorothy Miell, and Raymond MacDonald, 156–72. Oxford: Oxford University Press.
- Heller-Roazen, Daniel. 2008. *Echolalias: On the Forgetting of Language*. New York: Zone Books.
- Heudieres, Louis d'. 2016. "A paeon for theatrical scores." *MusikTexte* 149.
- Hübler, Klaus K. 2002. "Expanding the String Technique." In *New Music and Aesthetic* 1, edited by Frank Cos, Claus-Steffen Mahnkopf, Wolfram Schurig, 233–44. Hofheim: Woked Verlag.
- Kim-Cohen, Seth. 2009. *In the Blink of an Ear*. New York: Continuum.
- Kojs, Juraj. 2011. "Notating Action-Based Music." *Leonardo Music Journal* 21: 65–72. doi:10.1162/LMJ_a_00063.
- Kotsko, Adam. 2010. *Awkwardness*. New York: Zero Books.
- Kuny, Terry. 1997. "A Digital Dark Ages?: Challenges in the Preservation of Electronic Information." Paper presented at 63rd IFLA Council and General Conference, Copenhagen, Denmark, 4 September, 1–12.
- Lastra, James. 2012. "Fidelity Versus Intelligibility." In *The Sound Studies Reader*, edited by Jonathan Sterne, 248–53. Oxon: Routledge.

- Maestri, Eric. 2016. "Notation as Temporal Instrument." Paper presented at TENOR 2016, Anglia Ruskin University, Cambridge, United Kingdom.
- Masing, Elo. 2014. "Mapping or Choreographing?: Redefining Musical Notation." *Opticon* 1826 (16): 1-8. doi:10.5334/opt.by.
- Midgette, Anne. 2007. "Tino Sehgal - Art." *The New York Times*, November 25. <http://www.nytimes.com/2007/11/25/arts/design/25midg.html>.
- Moreno, Jairo. 1999. "'Body'n'Soul?': Voice and Movement in Keith Jarrett's Pianism." *The Musical Quarterly* 83 (1): 75–92.
- Nancy, Jean-Luc. 2007. *Listening*. Translated by Charlotte Mandell. New York: Fordham University Press.
- Nelson, Robin. 2013. *Practice as Research in the Arts*. London: Palgrave Macmillan.
- Ngai, Sianne. 2005. "The Cuteness of the Avant-Garde," *Critical Inquiry* 31 (4): 811–47.
- . 2008. "Merely Interesting," *Critical Inquiry* 34 (4): 777–817.
- Nickel, Luke. 2016. "About." <http://lukenickel.com/about/>.
- Nimkulrat, Nithikul. 2007. "The Role of Documentation in Practice-Led Research." *Journal of Research Practice* 3 (1).
- No Collective. 2014. *Ellen C. Covito: Works After Weather*. Lulu.com.
- Noland, Carrie. 2007. "Motor Intentionality: Gestural Meaning in Bill Viola and Merleau-Ponty." *Postmodern Culture* 17 (3). doi:10.1353/pmc.2008.0002.
- Ong, Walter J. 2002. *Orality and Literacy*. 2nd edition. New York: Routledge.
- Oram, Celeste. 2016. "Three Video Scores and their Compositional & Notational Strategies." Master of Art thesis, University of California, San Diego. <http://escholarship.org/uc/item/2rv043m7>.
- Otlet, Paul. 1934. *Traite de Documentation: le Livre sur le Livre: Theorie et Pratique*. Bruxelles: Editiones Mundaneum.
- Overton, Adam. 2011. "Re: Seven Easy Pieces, Adam Overton." http://curatorsintl.org/posts/re_seven_easy_pieces_adam_overton
- Pape, Toni. 2014. "Welcome to 'This Situation': Tino Sehgal's Impersonal Ethics." *Dance Research Journal* 46 (3): 89–100.
- Pédauque, Roger T. 2003. "Document: Form, Sign and Medium, as Reformulated for Electronic Documents." *HAL*. http://archivesic.ccsd.cnrs.fr/sic_00000594.
- Picknett, Michael. 2014. "Devising Music: Applying Creative Approaches from Dance and Theatre in Music Composition." DMus Thesis, Guildhall School of Music and Drama.
- Piekut, Benjamin, and Jason Stanyek. 2012. "Deadness: Technologies of the Intermundane." In *The Sound Studies Reader*, edited by Jonathan Sterne, 304–24. Oxford: Routledge.
- Portelli, Daniel. 2015. "Mapping Australia." *CeReNeM Journal* 5. cerenem.ricerca.org/articles/mapping_australia/page01.html.
- Reason, Matthew. 2006. *Documentation, Disappearance and the Representation of Live Performance*. Hampshire: Palgrave Macmillan.
- Salaün, Jean-Michel. 2014. "Why the Document is Important ... and how it is Becoming Transformed." *The Monist* 97 (2): 187–99. doi:10.5840/monist201497213.
- Saunders, James. 2008. "Modular Music." *Perspectives of New Music* 46 (1): 152–93.
- Schneider, Rebecca. 2001. "Performance Remains." *Performance Research* 6 (2):

- 100–08. doi:10.1080/13528165.2001.10871792.
- Schwartz, Hillel. 2011. *Making Noise: From Babel to the Big Band and Beyond*. Cambridge, MA: The MIT Press.
- Seeger, Charles. 1958. "Prescriptive and Descriptive Music-Writing." *The Musical Quarterly* 44 (2): 184–95.
- Sgualdini, Silvia. 2005. "The Objectives of the Object: An Interview with Tino Sehgal." *e-cart.ro Contemporary Art Magazine* 6. http://e-cart.ro/ec-6/silvia/uk/g/silvia_uk.html.
- Small, Christopher. 1998. *Musicking: The Meanings of Performing and Listening*. Middletown, CT: Wesleyan University Press.
- Smith, Justin E.H. 2013. "Interpreting Tino Sehgal." <http://www.jehsmith.com/1/2013/04/interpreting-tino-sehgal.html>.
- Sperlinger, Mike. 2005. *Afterthoughts: New Writing on Conceptual Art*. Rachmaninoff's.
- Sterne, Jonathan. 2003. *The Audible Past: Cultural Origins of Sound Reproduction*. Durham, NC: Duke University Press.
- Taylor, Diana. 2003. *The Archive and the Repertoire: Performing Cultural Memory in the Americas*. London: Duke University Press.
- Thomas, Philip. 2009. "a Prescription for Action." In *The Ashgate Research Companion to Experimental Music*, edited by James Saunders, 77–98. Farnham, UK: Ashgate.
- Tone, Yasunao. 2003. "John Cage and Recording." *Leonardo Music Journal* 13 (1): 11–15.
- Vickery, Lindsay. 2010a. "Mobile Scores and Click-Tracks: Teaching Old Dogs." Paper presented at The Australian National University, Canberra.
- . 2010b. "Increasing the Mobility of Stockhausen's Mobile Scores." <http://www.slideshare.net/lindsayvickery/increasing-the-mobility-of-stockhausens-mobile-scores-2010-lindsay-vickery>.
- . 2012. "The Evolution of Notational Innovations from the Mobile Score to the Screen Score." *Organised Sound* 17 (2): 128–36.
- . 2014. "The Limitations of Representing Sound and Notation on Screen." *Organised Sound* 19 (03): 215–27. doi:10.1017/S135577181400020X.
- Viola, Bill, and Robert Violette. 1995. *Reasons for Knocking at an Empty House*. Thames & Hudson.
- Walshe, Jeninifer. 2016. "The New Discipline." *MusikTexte* 149(4). http://musiktexte.de/WebRoot/Store22/Shops/dc91cfee-4fdc-41fe-82da-0c2b88528c1e/MediaGallery/The_New_Discipline.pdf.
- Wanderley, Marcelo M. 1999. "Non-Obvious Performer Gestures in Instrumental Music." In *Gesture-Based Communication in Human-Computer Interaction*, edited by Annelies Braffort, Rachid Gherbi, Sylvie Gibet, Daniel Teil, and James Richardson, 37–48. Lecture Notes in Computer Science 1739. Berlin: Springer.
- Widrich, Mechtild. 2012. "Can Photography Make It So? Repeated Outbreaks of VALIE EXPORT's Genital Panic Sing 1969." In *Perform, Repeat, Record: Live Art in History*, edited by Amelia Jones and Adrian Heathfield, 89–104. Bristol: Intellect.
- Wilcox, Jess. 2012. "Touching on Reusable Parts/Endless Love." *Interventions* 1 (2). https://interventionsjournal.net/2012/01/26/touching_on_reusable_parts/.

Art, Media

- Ablinger, Peter. 2009–10. “WACHSTUM UND MASSENMORD.” Piece for title, string quartet, and program note. Self-published.
http://ablinger.mur.at/i&_7wachstum-quartett.html.
- Bach, Johann S. circa 1740. “prelude” In *Suite in C Minor BWV 997*, copyist Johann Friedrich Agricola. Manuscript.
- Bacon, Francis. 1967. “Study for Head of Lucian Freud 1967.” Oil on canvas.
- Barnett-McIntosh, Antonia. 2015. “Breath.” Solo flute. Self-published.
<http://antoniabarnettmcintosh.com/Breath>.
- Barrett, G. Douglas. 2010. “A Few Marlenes (Where Have all the Flowers Gone?).” Picture score. Self published.
http://gdouglasbarrett.com/music/A_Few_Marlenes/.
- Bird, David. 2013. “Forgery #24.” Self-published. <http://davidbird.tv/forgery-24/>.
- Cage, John. 1957–58. “John Cage: Solo for Sliding Trombone.” YouTube. 8:28.
 Posted by “avn89pwe的頻道.” February 10, 2010.
<https://www.youtube.com/watch?v=2diY6wC1Xs4>.
- . 1962. “0'00.” Retrospective composition.
- Cape, Timothy. 2014. “My Favourite Bits.” Picture score. Self-published.
- Cassidy, Aaron. 2007. “I, purples, spat blood, laugh of beautiful lips.” For solo vocalist with audio guide. Self -published.
- Cassidy, Aaron. 2012b. “A painter of figures in rooms.” Music score for eight vocalist. Self published. <http://aaroncassidy.com/a-painter-of-figures-in-rooms/>.
- Celibidache, Sergiu (conductor). 2005. “Symphony No. 7 in E Major: I. Allegro Moderato.” *Bruckner No. 7, Te Deum*. EMI Classics, compact disk (disc 1).
- Chen, Carolyn. 2009a. “Adagio.” Annotated musical notation. Self-published.
- . 2009b. “adagio – the wulf” YouTube. 7:20. Posted by “Carolyn Chen.” August 2, 2009. <https://www.youtube.com/watch?v=G4g-W8QFCc>.
- Covito, Ellen C. 2011. “Composed Improvisation G.” Text score. Self-published.
<http://ellencovito.com/cig.html>.
- Cox, Franklin (cellist). 1992–94. “Shift.” *New Music Series (4). Neuma 450-102*, 2005. Compact disc.
- Elsenaar, Arthur. 2012. “Perfect Paul – On Freedom of Facial Expression [30c3].” YouTube. 29:06. Posted by “CCEn.” 29 December 2013.
www.youtube.com/watch?v=8kLuhMghu_w.
- Einarsson, Einar T. 2013. “Erasure Piece I: Sous Rature – Reframing Mohr and Linearity (again).” Music score for performer with minimum one erasure. Self-published. <https://prezi.com/on5xs-x43pnb/eraser-piece-ii/>.
- . 2013. “Erasure Piece II: Music is what Music Doesn’t.” Music score for performer with minimum one erasure. https://prezi.com/2u1_2veweizm/eraser-piece-i/.
- . 2013. “Pencil Piece II: Reframing Mohr and Linearity.” Music score for performer with minimum one graphite pencil.
<https://prezi.com/tzjogyrnpd8c/pencil-piece-ii/>.
- . 2013. “Pencil Piece I: Music is what Music Doesn’t.” Music score for performer with minimum one graphite pencil.
<https://prezi.com/wqj1r0cyeokd/pencil-piece-i/>.
- Ensemble DieOrdnungDieDinge. 2014. “If you know what I mean -teaser-.”

- YouTube. 1:47. Posted by "Iñigo Giner Miranda." 19 February 2014.
<https://www.youtube.com/watch?v=FAx8iti3O-E>.
- Fox, James. 2014-15. "Questioner, 1863." Video score for solo concert flute. Self-published.
- . 2015. "Portals." Video score for solo violin. Self-published.
- Guyton, Angela. 2016. "[factory] a long rope." Vimeo. 11:12. Posted by "Rodrigo Constanzo." 2 May 2016. <https://vimeo.com/165020986>.
- Heudieres, Louis d'. 2014–. "My Favourite Piece." Music scores for sight reading. Self-published. http://www.louisdheudieres.com/my_favourite_piece.html.
- Ingamells, Andy. 2015. "Composing Music for 11 Minutes Dressed in 18th Century Costume." Self-published. <http://andyingamells.com/2015/05/01/composing-music-for-11-minutes-dressed-in-18th-century-costume/>.
- . 2015. "Waschen." Performance composition. Vimeo. 5:33. Posted by "Bastard Assignments." 16 September 2015. <https://vimeo.com/139447784>.
- . 2016a. "Presentation about George Brecht and 'Waschen.'" Vimeo. 11:13. Posted by "Andy Ingamells." 1 February 2016. <https://vimeo.com/153783435>.
- . 2016b. "Packaged Pleasure." Performance piece.
- Janesko, David. 2014. "Natural Score (001)." Video graphic scores. Self-published.
- Lee, Chie Tsang. 2015. "'Yu Moi'." Solo voice with audio and video scores. Self-published.
- Johnson, Evan. 2011. "A general interrupter of ongoing activity." Music score for solo vocalist. Self-published.
- Kronlackner, Matthias. 2016. "ambiX v0.2.6 – Ambisonic plug-in suite." <http://www.matthiaskronlachner.com/?p=2015>.
- Lear, Renée. 2013. "Renée Taking a Sip of Water (Human and Video in Motion) 10 min. excerpt – 2013." Video art. Vimeo. 9:59. Posted by "Renée Lear." 7 March 2014. <https://vimeo.com/88462017>.
- . 2013. "Time not a video. – 2013." Performance lecture. Vimeo. 11:08. Posted by "Renée Lear." 12 January 2015.
- Luck, Neil. 2012. "CLUB." Sheet music with pictures. Self-published.
- Maker. 2011. "Missing (Remix)." SoundCloud. 3:45. Posted by "Maker-Music." January 6, 2014. <https://soundcloud.com/maker-music-1/missing-remix>.
- Marclay, Christian. 2014. "The Very Best Beer I Know." Found sheet music, bullseye glass, box frame.
- Miller, Cassandra. 2013. "Guide." Audio scores for vocal octet. Self-published.
- Morris, Robert. 1961. *Box with the Sound of Its Own Making*. Sound sculpture. Seattle: Seattle Art Museum.
- Nickel, Luke. 2014. "[factory]." Situation and living score. Mira Benjamin. <http://lukenickel.com/works-portfolio-2/factory/>.
- Nunzio, Mário Del. 2008. "Serenata Arquicúbica (Mário Del Nunzio) [score - part 1]." YouTube. 10:35. Posted by "Mario Del nunzio." 11 March 2011. www.youtube.com/watch?v=XloUECmzzOw.
- Ono, Yoko. 1964. "Cut Piece." Performance piece. In *Grapefruit*, 2010. London: Simon & Shuster.
- Oram, Celeste. 2013. "Mirror & Echo." Text score for violin, viola, and percussion. Self-published. <http://celesteoram.com/mirror-echo-2013-a-text-score>.
- . 2015. "8 x ∞." For mixed octet with audio and video scores. Self-published. <http://celesteoram.com/Works/8-x-2015-for-mixed-octet>.

- . 2015. “XEROX ROCK.” a video score for quartet. Self-published.
<http://celesteoram.com/Works/XEROX-ROCK-2015-a-video-score>.
- . 2015. “rupture | rapture.” An audio-video score. Self-published.
<http://celesteoram.com/Works/rupture-rapture-2015-an-audio-video-score>.
- Paganini, Niccolò. 1805–09. “Caprice 24.” In *24 Caprices for Solo Violin, Op. 1*, 1922, edited by Emil Kross. New York: Carl Fischer.
- Portelli, Daniel. 2014. “Mapping Australia.” Video score for solo piano. Self-published. <http://danielportelli.com.au/piano>.
- . 2015. “Animal.” Video scores with SATB choir and ensemble (violin, cello, electronic keyboard, and percussion). Self-published.
<http://danielportelli.com.au/choirandensemble>.
- Reiniger, Lotte, Freddie Phillips, Peter Gellhorn, Primrose Productions, DIF Deutsches Filminstitut, Deutsches Filmmuseum Frankfurt am Main, and BFI Film and Video Distribution. “Lotte Reiniger: the Fairy Tale Films.” London: British Film Institute, 2008.
- Sor, Fernando. c. 1826. “exercise 17” In *24 Exercices très faciles Op. 35*. Bonn: N. Simrock.
- Stockhausen, Karlheinz. 1956 “Klavierstück XI.” Solo piano. Vienna: Universal Edition.
- . 1959. “Refrain.” Piano, vibraphone, and celesta or synthesizer. Vienna: Universal Edition.
- Studio Olafur Eliasson. 2013. “Where Mind and Body Swing Back and Forth.” Vimeo. 11:40. Posted by “Studio Olafur Eliasson.” 12 September 2013.
<https://vimeo.com/74357590>.
- Toy Piano Audio Archive. 2004. “Toy Piano Audio Archive.”
<http://www2.clarku.edu/xtp/audio.html>.
- Viola, Bill. 2000. “‘Quintet of The Astonished’ by Bill Viola (excerpt).” Vimeo. 2:00. Posted by “Urban Video Project.” 20 September 2010. vimeo.com/15130088.
- Webern, Anton. [1933–34] 1936. “3 Gesänge as ‘Viae in via’ Op. 23.” Voice and piano. Vienna: Universal Edition.
- xannero1. 2014. “Scrapbooking Fussy Cutting Tutorial. Basic Beginner and Advanced.” YouTube. 22:28. Posted by “xannero1.” 27 August 2014.
<https://www.youtube.com/watch?v=2Z61GwMnv8M>