Université de Montréal

Composing idiomatically for specific performers:
collaboration in the creation of electroacoustic music

par

Teresa (Terri) Hron

Université de Montréal

Faculté de Musique

Thèse présentée à la Faculté des études supérieures et postdoctorales
en vue de l'obtention du grade de doctorat
en composition

Mars 2015

© Terri Hron, 2015

Résumé

Cette thèse examine l'impact de la collaboration avec des instrumentistes particuliers sur la composition de quatre œuvres électroacoustiques. Assumant un rôle plus important que celui de consultant ou conseiller, les interprètes ont influencé les décisions de l'auteur / compositeur dans le cadre de multiples ateliers et d'enregistrements de ceux-ci. Cette thèse examine ainsi comment les outils médiatiques de la musique électroacoustique affectent et enrichissent les relations personnelles : ces outils favorisent la transcription et la traduction, qui à la fois soulignent et transforment la spécificité du son. Le dialogue de la collaboration permet par la suite non seulement une réconciliation plus facile entre les éléments médiatisés et directs dans une oeuvre, mais aussi l'ouverture de son potentiel d'interprétation.

En se servant d'une méthodologie qui fait appel à une pratique d'auto-réflexion et récursivité, cette thèse explore des sujets tels que : l'analyse du style personnel dans un cadre linguistique; l'importance du contact physique dans la collaboration et sa traduction incomplète sur support; et les défis de la préservation de la musique électroacoustique pour média ou interprète particulier. Des exemples de la création collaborative de quatre œuvres, racontés de manière personnelle, sont tressés parmi le récit plus théorique de cette thèse, imitant le va-et-vient de la recherche-création.

Mots-clés : électroacoustique, collaboration, traduction, transcription, pratiques de l’interprétation.

Abstract

This dissertation examines the impact of collaboration with specific instrumental performers on the composition of four electroacoustic works. Acting as more than consultants or advisors, the performers influenced the author/composer's decision-making in multiple workshop situations and in the recordings of these meetings. This dissertation thus examines the ways in which the media tools of electroacoustic music affect and extend personal relationships: these tools encourage transcription and translation, activities that highlight and transform specificity. The dialogue of collaboration subsequently not only allows for an easier reconciliation between mediatized and live elements within a work, but also to an opening out of its interpretive potential.

Using a methodology that involves recursive and self-reflexive practice, this dissertation explores topics such as: the analysis of personal style in the framework of language; the importance of eye-to-eye, physical contact in collaboration and its incomplete translation onto media; and the challenges of preserving performer- and media-specific electroacoustic music. Examples from the collaborative creation of four works, acting as personal accounts, are braided into the more theoretical narrative of this dissertation, reflecting mimetically the to and fro of research-creation.

Keywords: electroacoustic, collaboration, translation, transcription, performance practice

Table of contents

Résumé i

Abstract ii

Table of contents iii

List of media examples vi

List of figures vii

List of acronyms and abbreviations viii

Acknowledgements ix

1. INTRODUCTION & BACKGROUND 1
    - 1.1 Prelude 1
    - 1.2 Introduction 2
    - 1.3 On the form 4
    - 1.2 On the topic 6

2. RESEARCH AND CREATION 9
    - 2.1 Evolutivity/Non-linear development 10
    - 2.2 Subjectivity/Personal account/Self-reflexivity 11
    - 2.3 Creativity 12
    - 2.4 Hybridity (scientific and artistic) 13
    - 2.5 Example of Research-Creation Methods 1: *AhojAhoj* 14
    - 2.6 Example of Research-Creation Methods 2: *BitterSweet* 21

3. ELECTROACOUSTIC MUSIC FOR SPECIFIC PERFORMERS 25
    - 3.1 Idiom 25
    - 3.2 Translation 27
        - 3.2.1 Example of Translation 1: *Love Song for MAD* 28
        - 3.2.2 Example of Translation 2: *BitterSweet* 43
    - 3.3 Studio – Atelier 45
        - 3.3.1 Example of Studio/Atelier practice 1: *Sketches for Malý velký Svět* 46

3.3.2 Example of Studio-Atelier 2: *Malý velký Svět–FATE* 51
3.4 Improvisation 55
3.5 Provisionality 56
3.5.1. Example of Provisionality: *Malý velký svět - THE PANTHER* 58
4. COLLABORATION 64
4.1 Open loop type-2 behaviour 65
4.2 The Zone of Proximal Development 66
4.2 Play 67
4.2.1 Example of Play: *Malý velký svět –NIGHT TIME* 69
5. SCORES & TRANSMISSION 71
5.1 Sort and display 71
5.2 Inscribing meaning & effective transcription 72
5.3 Privileging performance practice & eschewing authorship 74
5.5 Immersion in a Sonic Landscape 75
5.6 Example of Score & Transmission: A PICKLE IN A BELL JAR 76
5.6.1 Preserving Collaboration 76
5.6.2 Videoscore: Sonic landscape 76
5.6.3 Hyperscore: Resist entropy 77
5.6.4 Analogy: A pickle in a bell jar 78
6. CONCLUSION 83
6.1 Next steps 84
6.1.1 Division of labour 84
6.1.2 Portraiture 85
6.1.3 Playing Times and Spaces 86
6.2 All told 87
Bibliography 89
Appendices 93
Appendix A: Thesis Documents 95
Appendix B: Presentations/Publications 97

B 1. Musicians at Play: Collaboration between performers and composers in the creation of mixed electroacoustic music 99
B 2: Exploring the nexus of collaboration, notation and meaning in mixed electroacoustic music 109
B 3. Useful scores: multiple formats for electroacoustic performers to study, rehearse and perform 121
Appendix C: Documentation 131
C.1 Malý velký svět Questionnaire 133
C.2: Transcriptions of Media Examples 135

List of media examples

Media 1. *AhojAhoj* ... 15

Media 2. *BitterSweet* ... 21

Media 3. *Love Song for MAD* ... 29

Media 4. From *Malý velký svět documentation*: Interview with Katherine Dowling ... 48

Media 5. From *Malý velký svět documentation*: Chord improvisation, Katherine Dowling ... 49

Media 6. From *Malý velký svět documentation*: first meeting with the pianists ... 49

Media 7. From *Malý velký svět* documentation: Recording with Mathisha Panagoda, two excerpts ... 51

Media 8. *From Malý velký svět documentation*: Concert recording of *The Highwaymen*, Rolston Hall, The Banff Centre ... 51

Media 9. From *Malý velký svět documentation*: *Leaf lunch*, František Hron ... 53

Media 10. *Malý velký svět–FATE*, premiere performance, Katherine Dowling ... 53

Media 11. From the *Malý velký svět* documentation: *Luciane's Cat Song* ... 59

Media 12. From the *Malý velký svět documentation: Sketches for Malý velký svět: BeautyBeasty,* premiere performance. ... 60

Media 13. From the *Malý velký svět documentation: Malý velký svět–THE PANTHER,* premiere performance of viola version ... 60

Media 14. From the *Malý velký svět* documentation: *THE PANTHER* workshop 4 ... 61

Media 15. Conversation with Bob Gilmore, November 1, 2014 ... 65

Media 16. From *Malý velký svět–NIGHT TIME* hyperscore: Awkward nightbird & heavy melancholies ... 69

Media 17. From *Malý velký svět–NIGHT TIME* hyperscore: Rosabella Groove ... 70

Media 18. From *Malý velký svět* hyperscore: Shell Sorting ... 72

Media 19. From *Malý velký svět documentation*: Luciane Cardassi Interview ... 72

Media 20. Conversation with Bob Gilmore, November 1, 2014 ... 73

Media 21. Videoscore for *Malý velký svět–KNOCKING* ... 77

Media 22. *Malý velký svět –KNOCKING* hyperscore ... 78

Media 23. From the *Malý velký svět–KNOCKING* hyperscore: link on title ... 78

List of figures

Figure 1. First poster for *Sharp Splinter* (January 2013). Copyright © Terri Hron 2013 3

Figure 2. *Love Song for MAD: Incomplete Correspondence* Page 1....................................... 32

Figure 3. *Love Song for MAD: Incomplete Correspondence* Page 2....................................... 33

Figure 4. *Love Song for MAD: Incomplete Correspondence* Page 3....................................... 35

Figure 5. *Love Song for MAD: Incomplete Correspondence* Page 4....................................... 36

Figure 6. *Love Song for MAD: Incomplete Correspondence* Page 5....................................... 37

Figure 7. *Love Song for MAD: Incomplete Correspondence* Page 6....................................... 38

Figure 8. *Love Song for MAD: Incomplete Correspondence* Page 7....................................... 39

Figure 9. *Love Song for MAD: Incomplete Correspondence* Page 8....................................... 41

Figure 10. *Love Song for MAD: Incomplete Correspondence* Page 9..................................... 42

List of acronyms and abbreviations

SSHRC:	Social Sciences and Humanities Research Council

Acknowledgements

There are people without whom this dissertation would not have been possible. I thank Isabelle Panneton, for giving me so much fortitude. I thank the wonderful artists I made these pieces with: Luciane Cardassi, Rosabel Choi, Katherine Dowling, Andréa Tyniec, Ronelle Schaufele, Tim Shantz, Katie Warke and Nina Hornjatkevyc. I thank Steve Bull, Philip Fortin, Amandine Pras, Marie-Eve LaFlamme and the members of the Spiritus Chamber Choir for helping us perform and record them. I thank Daniel Cecil for his careful reading.

I thank all my collaborators, who convince me regularly of the nurturing nature of shared music. I thank Robbert van Hulzen for encouraging and playing my first electroacoustic adventures. I thank George Lewis for inspiring me to academic rigour. I thank Philippe Leroux for his insightful insistence on form.

These works are for my closest: Marie, Madelaine and Franta Hron and Robert Normandeau. Words cannot describe my gratitude.

1. INTRODUCTION & BACKGROUND

1.1 Prelude

As I prepared to write this dissertation, I gathered the sketches, computer patches, recordings of interviews, workshops and performances that I'd collected over the course of my doctoral collaborations. I had made this material intuitively, without any method other than experimentation in the largest sense, guided by the collaborations I had chosen. I had a lot of experience in collecting and none in documentation. Had I known then what I do now, I would not change my approach because there is power in relying on the present moment as teacher. When it came to writing this document, I tried to have the same attitude, believing that what to say and how to say it would become clear, both from the material and my those notions that I resonate with. I start therefore, by listing these most subjective traits, even before introducing the thesis itself.

I believe in heuristic optimism, recognizing my own as one of a plurality of approaches, parallel worlds, celebrating their co-existence. Working with others makes me conscious of what I do not know, or, to look at it more usefully, as an opportunity to integrate new awareness.

I believe that this curious attitude was cultivated in me by my parents, who were both scientists. My father insisted on elegance in the description of physical phenomena; deriving formulae was a joyful activity for him, even more so to explain it to me, with the whole back story. “What’s important is not the formula but it’s knowing how to find it, because then you know how to get there,” he would say. His research was about wave propagation in inhomogeneous media. Our conversations were cut short when he died in 1998, but I think he was a geophysicist because he was fascinated with the complexity and contingency of what makes up the matter of the earth, and how the frequencies passing through it are affected. Somehow this feels related to my work.

My mother is also a physicist, but with a passion for writing to specific people. She is always sending letters to those she cares about. She follows in the epistemological tradition of her family, which goes back several generations. I have a lot of respect for her commitment to the art of correspondence as an open-ended form that invites engagement and often relies on shared experiences that are referred to but mostly not described.

Then there is my sister, who was my first and most constant playmate, for better and for worse. My trust in the creative power of play, both in following and in evading the rules, comes from our joyful childhood.

I start with these anecdotes because my doctoral compositions all relate to my family. I consciously chose the topic, even if I did not know what I would learn. At the same time, my doctoral compositions are for specific performers, who I also chose consciously, without exactly knowing why.

1.2 Introduction

My doctoral thesis, "Composing idiomatically for specific performers: collaboration in the creation of electroacoustic works," comprises four compositions: *AhojAhoj, Love Song for MAD, Malý velký svět* and *Bittersweet.*

The first three are part of *Sharp Splinter*, which was premiered as a complete cycle on my birthday, October 11, 2013, as part of Réseaux des Arts Médiatiques's series *Électrochocs* at the Salle Multimédia, Conservatoire de Montréal (Figure 1 shows the image for the event). The following program note gives a good introduction to this work as well as general information on timings and the performers:

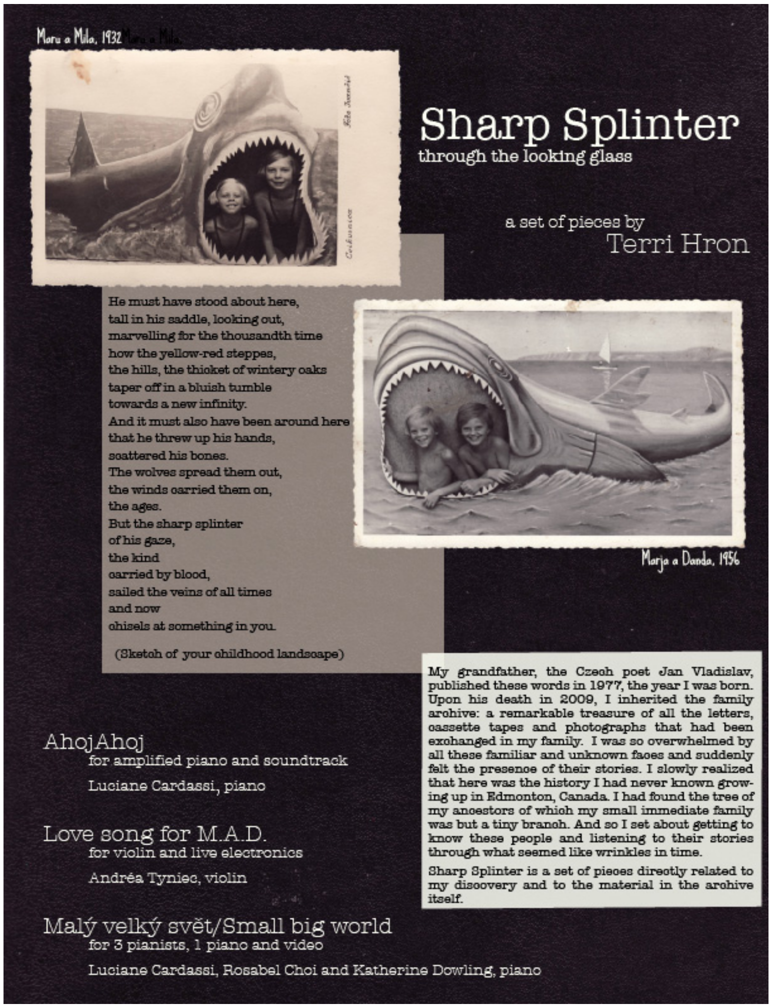
> In 2008, my maternal grandfather, the Czech poet Jan Vladislav, passed away, leaving me his collection of family heirlooms. There were letters dating back one hundred years, cassette-tapes sent and received from my parents (who emigrated to Canada during the Cold War), including an extensive collection of photographs and a couple of films. This archive prompted me to gather as much of our family material – also from my father's side – as possible. I began to envision a project that would use the collection in a musical performance. ***Sharp Splinter*** is this project: a program of new works for instruments and electronics using my family's letters, cassettes and films.
>
> ***AhojAhoj*** for piano and fixed media (2010-2011) 14'
>
> Luciane Cardassi, piano
>
> ***A Love Song for MAD*** for violin and piano (2010-2013) 20'
>
> 1. it's complicated
> 2. seemingly romantic
> 3. has its moments, but…
> 4. i'd have a quarrel with the world
>
> Andréa Tyniec, violin, Terri Hron, electronics

Malý velký svět for piano and electronics (2011-2014) 30’

1. TWINKLE & LOOP
2. FATE
3. KNOCKING
4. NIGHT TIME
5. NOURISH
6. THE PANTHER

Luciane Cardassi, Rosabel Choi, Katherine Dowling, piano
Ronelle Schaufele, alto; Terri Hron, electronics; Steve Bull, video

Each work was written collaboratively with the performers. Their specific way of performing became a determining factor in the development of the piece, and in that sense, these pieces are intimate dialogues between myself and each of these musicians specifically. Each piece also uses the mechanical sound of a machine that enabled this archive to be created: the typewriter, the cassette deck, and the film projector.


Maru a Mila, 1932
Marja a Danda, 1956

Sharp Splinter
through the looking glass

a set of pieces by
Terri Hron

He must have stood about here,
tall in his saddle, looking out,
marvelling for the thousandth time
how the yellow-red steppes,
the hills, the thicket of wintery oaks
taper off in a bluish tumble
towards a new infinity.
And it must also have been around here
that he threw up his hands,
scattered his bones.
The wolves spread them out,
the winds carried them on,
the ages.
But the sharp splinter
of his gaze,
the kind
carried by blood,
sailed the veins of all times
and now
chisels at something in you.

(Sketch of your childhood landscape)

My grandfather, the Czech poet Jan Vladislav, published these words in 1977, the year I was born. Upon his death in 2009, I inherited the family archive: a remarkable treasure of all the letters, cassette tapes and photographs that had been exchanged in my family. I was so overwhelmed by all these familiar and unknown faces and suddenly felt the presence of their stories. I slowly realized that here was the history I had never known growing up in Edmonton, Canada. I had found the tree of my ancestors of which my small immediate family was but a tiny branch. And so I set about getting to know these people and listening to their stories through what seemed like wrinkles in time.

Sharp Splinter is a set of pieces directly related to my discovery and to the material in the archive itself.

AhojAhoj
for amplified piano and soundtrack
Luciane Cardassi, piano

Love song for M.A.D.
for violin and live electronics
Andréa Tyniec, violin

Malý velký svět/Small big world
for 3 pianists, 1 piano and video
Luciane Cardassi, Rosabel Choi and Katherine Dowling, piano

Figure 1. First poster for *Sharp Splinter* (January 2013). Copyright © Terri Hron 2013

The fourth work, *BitterSweet* (2011-2013) is for a larger group, Spiritus Chamber Choir Calgary, where I interpreted the topic, "Composing idiomatically for specific performers," by concentrating on the conductor Timothy Shantz and the soloists Katy Warke and Nina Hornjatkevyc. This 26-minute was premiered on March 23, 2013, sharing a Lenten program with James MacMillan's *The Seven Last Words of Christ.*

In this written part of my doctoral work, I analyse *Sharp Splinter* and *BitterSweet* by using them as examples of what I learned about the sub-topic: "collaboration in the creation of electroacoustic works." There are five chapters. This first chapter is an introduction to the topic and form of this text. In Chapter 2, I discuss method by responding to Breault's "broad methodological categories" for research-creation (Breault, 2013). Chapter 3 explores five of my key interests within electroacoustic music: idiom, translation, studio-atelier, improvisation and provisionality. Chapter 4 is devoted to creative collaboration specifically, the red thread I followed. Finally, Chapter 5 addresses one of my specific challenges: how to show collaboration in the score.

1.3 On the form

In the first year of my doctoral studies, my supervisor encouraged me to work with "la forme d'une tresse," the form of a braid.[1] I found this a powerful image because the strands of a braid are always present yet not always visible. These strands are self-contained and further defined by the form. Strands from one can be introduced to another, noticeably or secretly.

The braid form works well when there are parallel discourses, as there are here: creation and research. The chapters have sections on theory, which often contain references to others whose words I found illuminating. These are illustrated with examples drawn from *Sharp*

---

[1] During my first year at Université de Montréal, my supervisor Philippe Leroux. His encouragement to work on form greatly affected my thinking. Afterwards, Isabelle Panneton took over, providing support to take risks by exploring the extremities of an idea. I am grateful to have been encouraged to let go of the authority of symmetry and linear narrative.

Splinter and *BitterSweet.* The examples are given chronologically, starting with *AhojAhoj* and *BitterSweet* (1) to illustrate Chapter 2. Chapter 3 contains three sections of examples, the first, *Love Song for MAD* and *BitterSweet* (2), accompanies 3.1 Idiom and 3.2 Translation, the second, *Sketches for Malý velký svět* and *Malý velký svět –FATE,* describes 3.3 Studio-Atelier, and the third, *Malý velký svět -THE PANTHER*, demonstrates 3.4 Improvisation and 3.5 Provisionality. In Chapter 4, I use *Malý velký svět -NIGHT TIME* as an example of play and collaboration, and finally *Malý velký svět -KNOCKING* pops in and out of Chapter 5 as a specific example of the integration of collaboration within the score of a work.

Since I take the opportunity to write analyses of the works from different perspectives in the example strands, these often take up quite a bit of space. As a result, there is no symmetry with the strand of more objective, theoretical sections. As such, the reader may get temporarily lost in one of the works I describe, but will be brought back on track. If research-creation is a medium, then its message is not one of temporal or word-count symmetry.

As an electroacoustic artist, my primary relationship to words is as a reader, not as a writer or wordsmith. As such, there are often lengthy citations, because I particularly agree with and am attached to not only the *content* of the message, but *how* it is presented. I discuss the difficulties of transcription and its relationship to paraphrase in Chapter 5. 2 *Inscribing meaning and effective transcription*.

The reader is also asked to accept two idiosyncracies: my frequent and playful use of analogy and my penchant for the detective genre. In the text, I often set the intrigue in motion, leaving clues, before unveiling the secret. To use a first playful analogy, research-creation is like Dr. Watson and Sherlock Holmes, inseparable halves of a unit: one does the virtuosic sleuthing, and the other keeps a thrilling account of it. This analogy comes to mind because these characters are as much a product of Arthur Conan Doyle's as the actors who have played them in our culture, and thus attest to the power of the performer and the act of re-creation in the transmission and establishment of meaning. This is one of the basic tenets behind my work, and is discussed in greater detail in Chapter 5.6.4 *Analogy: A pickle in a bell jar*.

Three articles, presented at conferences or published in 2012 (Electroacoustic Music Studies Conference Stockholm and Toronto Electroacoustic Symposium) and 2014 (Organised

Sound), are included in Appendix B. They mark a progression in my synthesis of issues surrounding creative collaboration and notation, and are completed by Chapter 5.6.4, which I presented at the Journées d'Informatique Musicale 2015 in Montreal. Since this thesis is the most up-to-date account of my ideas, the others are included as reference and to flesh out certain ideas that were important enough to write down.

1.2 On the topic

It was during a commissioning project with six electroacoustic composers called *Bird on a Wire: absorb the current* (http://www.birdonawire.ca/bow1/) that I began thinking about a return to research and study in an academic environment. I had originally conceived of the *Bird on a Wire* solo project to learn different approaches to live electronics, since I was only getting so far on my own, and I saw this as a good opportunity to learn from people within my community. I was very enthusiastic about the experience and the directions it suggested for my own practice. Besides the actual pieces – several of which I still enjoy playing very much – the project made me aware of two notions that have to some extent directed my work ever since. The first is that collaboration offers an incredible forum for learning and the second, that I love things that are personal.

The two years I that spent working on the first *Bird on a Wire* project overlapped with a period in which I also became interested in tracking the creative process. I was intuitively attracted to accounts of *how* and *why* people made things, and was enthusiastic about the new ways in which social networks offered a forum for access to this "backstage."[2] Concurrently, I was also increasingly involved in a practice that was, in itself, more about process than product, that valued individual voice while also celebrating community: improvisation.

These lines of inquiry led me to participate in a three-week workshop with George Lewis, who encouraged me to consider studying my community-building practice within an academic environment. I was deeply moved by his ethnographic and personal account of the AACM (Lewis, 2008) and so, I started to devise a creative collaboration project that would simultaneously have artistic and intellectual merit.

---

[2] My first artistic residency was at the Atlantic Center for the Arts in 2006 with William Duckworth and Nora Farrell. I applied with a submission to design a website on which I could blog about a creative project. The project I conceived was *Bird on a Wire: absorb the current*. I made the first version of my website (http://www.birdonawire.ca/) at the Atlantic Center using and hacking WordPress 2.0.

Initially, I developed the idea of composing for the *idiomatic performer*: that is, creating bespoke works for the idiosyncrasies of specific performers. Collaboration would be the key to sharing both the information specific to the performer and to the work. I would use media technology to facilitate and reveal different aspects of this transmission, as well as the nature of collaboration itself.

My initial research proposal stated the following:

> My goal is to put electroacoustic composition for the *idiomatic performer* under the spotlight as a case study in an auto-ethnography of creative collaboration. Collaborative electroacoustic music is a practice that simultaneously needs and feeds technology: new tools are developed to make pieces conceived by ideas generated by existing tools, leading to new ideas, that require new tools and so on, in a feedback loop. In a sense, the possibilities opened by electroacoustic music in general and by real-time manipulation of sound in particular, have created a whole new interaction between performer and composer. The ever-expanding possibilities grow in parallel with our ability to be ever more specific and personal (McLuhan & Fiore, 1967, p. 8).This leads to the surprising conclusion that while collective endeavours seem to reduce individual ownership and identity, they might actually heighten individual expression through the expertise of the other (Landy & Jamieson, 2000, p. xii). It also follows that the expertise required to bring about the creation of such highly specific, individual works is often beyond the capacities of a single individual, leading to the need for collaboration and the "borrowing" of skills (Vygotsky, 1978, p. 83).
> The following are the specific questions I will address in my research: How do I define the idiomatic performer, and what are the strategies for collaborating with one as a composer? What is authorship within this context? In a musical tradition concerned with preservation, what does 'posterity' mean for a practice so focused on individuals? How does composition for the idiomatic performer fit within the larger field of creative collaboration? How can we document the collaborative process in the creation of music works? These questions are all derived from the following propositions: (a) that digital technology provides a new medium for the relationship between performers and composers in the area of music, and the resulting form must emancipate itself from a model derived from a traditional, instrumental performer-composer relationship to something entirely its own; and that (b) creative collaboration with the idiomatic performer offers one possible new direction."[3]

On the other side of the four-year creative and experimental project, I have greater clarity on many of these initial questions, and my focus has narrowed. In an effort towards consolidation and larger applicability, *Composing idiomatically for specific performers: creative collaboration in electroacoustic music* subsumes issues of authorship and documentation within the discussion of collaboration (Chapter 4) and scoring strategies (Chapter 5). In essence, what is revealed at the end of this thesis is the main (technical) puzzle I faced in the creation of these works:

---

[3] Terri Hron, SSHRC application 2011.

How does collaboration define the performances and scores of my electroacoustic works?[4]

This thesis does not contain analyses of each of the works independently and in their entirety or after a theoretical discussion. It approaches the topic broadly, weaving in analyses from specific perspectives, narrowing the focus with each chapter towards one quite specific answer to the question above: the hyperscore. I came to this solution at the end of the process, which is why this thesis follows a similar form in discussing the topic.

---

[4] I consciously avoid the sub-category of "mixed" electroacoustic music, because this term is, in my experience an opinion, not readily understood and used in English-speaking North America as it is in francophone circles. I also believe that electroacoustic music embraces and includes acoustic music at this point and will increasingly do so.

2. RESEARCH AND CREATION

Research-creation as a practice does not have as of yet, a very long history of discourse. While I believe that most innovative creative work comprises elements of research, and that there is a long tradition in the analysis of compositions by musicians, I feel that clear methodologies for research-creation are still in their beginning stages.[5] While analysis is inherent to both composing and performing, I believe that one of the biggest challenges in research-creation is that the creative activity, which is often largely intuitive, and the analytical one, which relies more on logic and intellectual forms, are not easily practiced concurrently. Knowing more about how creation and analysis operate for others and myself, and specifically how I could observe my own practice more effectively helped to define many things about this doctoral research-creation project.

I was fortunate enough to read Marie-Hélène Breault's dissertation on the role of the performer-researcher in musical creation and re-creation while I was searching for a framework for my own research. In her fascinating discussion, she includes a very comprehensive overview of methodologies for research-creation, and brings together different perspectives on how to bring research and creation into phase. She comments on a particularly useful conception of the interrelationship between theory (research) and practice (creation), and how a posteriori reflection on a process can allow a theory to emerge from practice, from the "small acts having already taken place," and that these reflections can then be reintegrated in the next or new problem at hand. These afterthoughts are not only of use to oneself, but are transferrable and adopted by others, underlining the usefulness of theorisation (Breault, 2013, pp. 20-21). Two of Breault's ideas feel particularly close to the methods I aspired to here: (a) the feedback loop between thinking and doing, and the material they *both* generate and (b) a commitment to generating work that can be useful to others. Furthermore, Breault identifies a list of “broad methodological orientations” that guided her own doctoral research-creation and that I adopt here as true for my context:

---

[5] For a good overview of similar concerns in circles overseas, see Franziska Schroeder's recent article calls for a return to values of "integrity, sincerity and authenticity" (Schroeder, 2015 forthcoming).

> – évolutivité;
> – mise de l’avant de la subjectivité de mon expérience comme musicienne;
> – témoignage d’une expérience personnelle ;
> – créativité;
> – hybridité (scientifique et artistique) ;
> – allers-retours entre des activités théoriques et des activités pratiques (non linéarité du rapport théorie-pratique). (Breault, 2013, p. 23)

In this chapter, I have slightly adapted her list to create a personal set of methods that oriented my practice.

2.1 Evolutivity/Non-linear development

Each of the four collaborations that I describe later in this paper offered up a new opportunity in which I could improve my knowledge and strategy towards creating a work for a specific person to play. Many of these works took several years to complete, involving cycles of creation and revision, producing both a layering of material and several shifts in focus. Three of the four works discussed here belong together in a set or cycle, called *Sharp Splinter*. In a chapter on historical and empirical musicologies of compositional processes, Nicolas Donin brought together the cyclical nature of production and theorisation and the compositional strategy of cycle development, *‘mise en cycle*.’ He argues that the “global design of the cycle-in-progress” creates a finely tuned theoretical discourse, a kind of control group within which a composer benefits from “a heightened consciousness of notions and techniques neither fully noticed nor mastered within the (first) piece where they emerged.” (Donin, 2013) While the works in the *Sharp Splinter* cycle are linked poetically, they did also benefit from the evolutivity and spiralling occuring between the theorisation and production that Donin describes.

The works had another thing in common - each was for a specific musician. Increasingly, I invited my decisions to be based on interactions with these collaborators, such that face time with the performer was incredibly valuable. Thus, much of my work consisted of collecting traces of them to analyse and reuse towards the most useful material to use in our next meeting.

This ||: accumulating and sorting through traces together :|| method heightened the nostalgic/autobiographical element already present in my work due to the cycle's connection with my childhood in Canada, where I lived with my parents who had moved there from Cold-War Czechoslovakia.

2.2 Subjectivity/Personal account/Self-reflexivity

I collected the traces of these projects as an artist and to the extent that I was able, as an amateur autoethnographer: my ethnographic skills and training come from personal readings ((Lewis, 2008),(Rubinoff, 2008)). Despite the conscious inadequacy and incompleteness of my empirical techniques, in the writing of this document, I kept Leon Anderson's five key features of *analytical autoethnography* in mind:

> (1) complete member researcher status,
> (2) analytic reflexivity
> (3) narrative visibility of the researcher's self,
> (4) dialogue with informants beyond the self, and
> (5) commitment to theoretical analysis. (Anderson, 2006, p. 380)

Working collaboratively on new electroacoustic naturally integrates these five features. For example, performers are often highly skilled at analytic self-reflection, just as composers often delve into theoretical analysis to refine their work.

I believe many musicians, certainly those in collaborative situations (and even more where new technology is involved), feel the benefits of auto-analysis, despite its essential subjectivity. Leroux views the benefits of auto-analysis within research-creation situations as a pedagogical opportunity, 'une pédagogie pour soi-même.' (Leroux, 2010, p. 58) Within collaborative situations and also outside them, auto-analysis is a major auto-didactic tool.

I am, to a great extent, self-taught on the recorder, and, prior to my doctoral studies, was self-taught as an electroacoustic musician. During this time of development I acquired a knack and a taste for moving forward through analyzing what I was doing: pedagogy for the self. In this regard, my education in how to integrate aspects of autoethnography is still in progress, my skills still being largely acquired through reflection on my successes and failures.

2.3 Creativity

Breault's approach to creativity focuses to a large extent on establishing that there are more participants and holders of it than merely composers, and of the many examples she provides, the following statement by Kagel sums it up:

> The performance of scores in our time is infected with such a strong compositional nature that the author's role can often only be compared to that of "initiator of play." If players must go beyond their usual activity of performer-editor (fingering, technical preparation, etc.) in order to undertake on the sonic realization of the graphical model, their name should be placed next to that of the author, or – for ethical compliance – both names should be shrouded in anonymity. In case one of these requirements were enforced, the consequences might become very interesting. Composers who value a fetishistic specificity of their name would be forced to think of ways to fix their ideas with traditional notational means. The introduction of types of notation belonging to a new genre has now muddled the boundaries between composer and performer to such an extent that we cannot but arrive at such legitimate conclusions.
> (Kagel, 1983, p. 60) (my translation)

As both performer and composer – and feeling no particular divide between the two in my practice – I could not agree more, either with Breault or with Kagel. The following paragraphs offer two thoughts about the study of creativity that I find most pertinent to the works discussed here and my practice in general, since a thorough definition of the term is beyond the scope and purpose of this thesis.

First of all, definitions of creativity that involve the notion of novelty of product elevates those that are involved in creation (composers) above those responsible for (re)production, (performers). Electroacoustic music allows and forces us to share the tools necessary to create, produce and play, therefore encouraging the shedding of these categories. I prefer Gruber and Davis' now classic "three fundamental propositions" for the study of creativity:

> 1. Each creative person is a unique configuration.
> 2. The most challenging task of creativity research is to invent means of describing and explaining each unique configuration
> 3. A theory of creativity that chooses to look only at common features of creative people is probably missing the main point of each life and evading the main responsibility of research on creativity. (Gruber & Davis, 1988, p. 245)

... as well as their "three main headings: basic commitments and organizing schemes, the role of metaphors in creative work, and the interactions of creative individuals with their worlds." (p. 249) In the works discussed in this paper, these notions translate into (hyper)scores, analogies and workshops.

Second, I suggest that musicking (Small, 1998), which celebrates the creativity of the performer, is closely linked to "*fluency* (a large amount of mental productions), *originality* (a production of non-stereotyped, “divergent” answers), *flexibility* (the ability to adapt one’s own knowledge to different situations), and *sensitivity to problems* (the ability to recognize – not only to solve – problems)." (Baroni, 2006, p. 83) These are the intellectual abilities J.P. Guilford related to creativity, and I suggest they are also benefit analogy. Cognitive scientist Irène Deliège points out that metaphor and analogy have long been associated with creativity by quoting Ribot from 1905:

> The basic, essential element of creative imagination on the intellectual level is the ability to think in terms of *analogy*, in other words on the basis of partial and often accidental resemblance. By analogy, we mean an inexact form of resemblance: likeness is a genus of which analogous is a species… Analogy, an unstable, changing, polymorphous procedure leads to completely unexpected and novel combinations. Its quasi-boundless flexibility can yield absurd connections as well as highly novel inventions (original emphasis). (Deliège, 2006, pp. 64-65)

Analogies pop up often in this account and in the scores themselves, as a way of borrowing what has already been explained in one domain and adapting it to my own. This is a kind of “idea translation,” fundamental to the dialogue of these collaborations and to the communicability of the ideas they generated.

2.4 Hybridity (scientific and artistic)

To hijack Ribot's statement above, I suggest that one basic, essential element of creative imagination in electroacoustic music is the ability to think in terms of hybridity as partial and often accidental imitation. By hybridity, I mean an inexact form of imitation: likeness is a genus of which hybridity is a species.

The particular species of hybridity represented by the works here involves my imitation and entanglement (Salter, 2010) of the musicianship of specific performers *and of their mediated traces*. It involves, too, the use of both instrumental and electroacoustic sound and writing tactics. I share the tools that enable this with every artist working in digital media, a reality that implies an inherent hybridity of medium and form. Hybridity of *genre* in electroacoustic music is a pleonasm, unless we are stalled in a discussion of instrumental and electronic music as separate forms. I suggest sidestepping that discussion altogether by considering sound itself and the ubiquity of the tools that we use to harness it—be they a computer, notation, a loudspeaker or an instrument.

The two concluding sections of this chapter use *Ahoj Ahoj* and *BitterSweet* to illustrate this inherent hybridity, as well as give practical examples of evolutivity, reflexivity and my focus on the creativity of the performer. I take the opportunity to present the history and development of each work from a point of view that highlights the theoretical and methodological issues discussed above. My discussion of these works is highly subjective and personal, and therefore the reader may notice a shift towards a more storytelling tone.

2.5 Example of Research-Creation Methods 1: *AhojAhoj*

AhojAhoj is the first piece in which I explored collaboration and composing for specific performers with the spirit of research-creation. The program note can serve as an introduction:

> **AhojAhoj** for amplified piano and soundtrack is written for Luciane Cardassi. Luciane's extensive experience performing repertoire for piano and tape, and her love of this form, led me to write a piece with a fixed soundtrack. This soundtrack uses excerpts from the cassettes exchanged by my family during the Cold War as well as the sound of a cassette deck. The excerpts chosen are salutations, hellos and goodbyes, both *ahoj* in Czech. The work is dedicated to my mother, Marie.

I met Brazilian-born pianist Luciane Cardassi at the Banff Centre in 2006; we were immediately drawn to one another because our projects involved the integration of instruments and electronics. She commissioned me to write a work for her *Going North* project and I wrote the piece, *undressing a past*, during another residency at the Banff Centre in 2010, which allowed me to work closely with Luciane during the composition and programming since she lives in the town. *Undressing a past* was the first piece in which I used live electronics for a performer other than myself, and it was the backdrop against which I applied for doctoral studies. Several seeds for all the works I discuss in this thesis were planted in those sessions with Luciane: the rich poetic inspiration I draw from my family history in general and from the writings of my grandfather, Jan Vladislav, in particular;[6] the incredible value of building electronics as much as possible at the instrument (my studio at the Banff Centre had a concert-size grand piano); and the connection and inspiration performer-collaborators often share with pre-existing repertoire (in this case *V mlhách* by Leoš Janáček).

Luciane was enthusiastic about continuing to collaborate and asked me to write another work. In *AhojAhoj,* I decided to focus my attention on Luciane herself, to compose more overtly for *her*.

Media 1. *AhojAhoj*
http://www.birdonawire.ca/ahojahoj-audio-recording/

This recording was made in the days before the premiere of the *Sharp Splinter* cycle in 2013 (and therefore two years after its first performance), and what I find most striking is Luciane's quietness: she is almost undetectable when she is not sounding the instrument. I remember the graceful choreography of arranging and playing the preparations, the strings and the keyboard: an act of precision. Luciane recorded this piece in a single take: after several years of playing it, she was remarkably intimate with the electronics and amplification.

As a fellow 'classical' instrumentalist playing electroacoustic music, I have a deep appreciation for how skilled she is at those aspects of performance that are specific to this genre, which often asks the performer to maintain awareness or even to manipulate musical and extra-musical elements and interfaces. In his discussion of electroacoustic music involving instruments, Simon Emmerson brings many of its key puzzles to the fore:

> A classic 'acousmatic' style is usually severely disjunctive with the tradition from which western instrumentation emerged. Pitch is seen as a subset of timbre and not necessarily an

---

[6] The biographic blurb from my grandfather's last collection of poetry reads: Poet, novelist, essayist, translator and author of children's books, editor. For more than half a century, he belonged to the most important personalities of our culture. Jan Vladislav – an intellectual of a European nature and outlook – was also a man of unbroken character. His poetic work at the time of the former regime meant that he could practically not publish and so he dedicated himself to translation and children's literature – his works in this field number in the hundreds of publications. In 1981, he was forced to emigrate to France, from where he returned only more than twenty years later. The following words typify the demands he imposed on himself and his artistic work: "Literature is first of all a meeting ground between readers and an author, between one person and another and their fate." (Vladislav, 2014) (my translation)

> important one at that. Harmonic development is often replaced by more complex *timbral* relationships. The first step we might observe in trying to overcome this incompatibility is towards treating the instrument as 'sounding body', exciting its resonances and eliciting other sounds through a variety of techniques, most of which we might describe as 'extended'. In short to re-create it as a source of *objets sonores* to complement in quality those which have been preprepared in the electroacoustic part. Ironically, the causal link which the listener may have – instrumental gesture to sound – may be broken; the extraordinary sounds created from our 'familiar' instrument may not *seem* to come from it. The instrument aspires to the condition of the acousmatic. (Emmerson, 2000, p. 207)

In *AhojAhoj*, the "extended" and "familiar" piano occurs in live and disembodied form. The piece features the piano as a resonator and filter for cassette recordings of my Czech relatives. This was the key to the puzzle that the initial poetic premise of the work presented: how could I combine a piano with the lo-fi voices of people trying to connect with one another across the physical and political divide of the Iron Curtain?

The notion of resonance translated in sound the effect these cassettes had on me emotionally. I had discovered a box of tapes in my maternal grandfather's apartment after he passed away and vaguely remembered how we used to make them in our living room to send overseas. I do not remember having listened to the ones my grandparents sent to us, but suddenly there they all were, gathered together. I immediately listened to them all, surprised at the multitude of relatives captured on those dusty relics: it was the unexpected appearance of my paternal grandfather, whose voice I had not heard for over twenty years, and the immediate rush of memory that it triggered, which I consider the initial spark for *AhojAhoj.* I realized immediately that although the stories on the tapes fascinated me, what was truly remarkable was the signature of these voices, their timbre. The sounding bodies were now gone, but these sonic traces remained. The puzzle then, was to find a way to bring together these ephemeral, bodiless signatures and the imposing physical reality of a grand piano. I felt this project particularly suited to Luciane because I was strongly moved by her performance of Luigi Nono's *...sofferte onde serene...* shortly before she commissioned me in 2009: the beautiful fragility between the amplified piano and the subtle fixed sounds was otherworldly.

In the subsequent section of the article by Simon Emmerson quoted above, he points out the difficulties in effectively combining acoustic, amplified and electroacoustic sounds, suggesting that the performer either has "the uneasy feel of a persistently real and recognisable (sic) intruder into a dream" or is the soloist in front of "an apparently superhuman (and sometimes robotic) force." (ibid.) Achieving something other than one of these two paradigms occurs when both composer *and* performer commit to different strategies for forming the listening experience. Varela, Thompson and Rosch speak to the importance of practice, which allows for a rapprochement between initially disparate elements:

> As one practices, the connection between intention and act becomes closer, until eventually the feeling of difference between them is almost entirely gone. One achieves a certain condition that phenomenologically feels neither purely mental nor purely physical, it is, rather, a specific kind of mind-body unity." (Varela, Thompson and Rosch quoted in (Brown & Dillon, 2013, p. 104))

One of the privileges of working with Luciane was her extensive experience of electroacoustic spaces. Unlike many performers who leave practicing in an electroacoustic space to the final rehearsal with the composer or technician, I knew Luciane's approach involved an intimacy with the technology from early on in her process. The first time I heard Luciane play in 2006, she was performing Davidovsky's *Synchronisms No. 6*. I was struck at the ease and precision with which she blended with the electronic sounds. I had personally always felt trapped when playing with fixed media, but Luciane's virtuosic synchronism, and the synchronicities it sparked led me to re-evaluate my conception of intention and act. With *AhojAhoj*, I wanted to create a work in which she could explore her precision and freedom organically. I thus privileged synchronism in my composition, creating a work particular to Luciane's fortes. I made a fixed electroacoustic part that she could perform alongside without a stopwatch. This meant that there needed to be adequate cues from within the fixed part (shown by the arrows in the score). I circumvented my own apprehensions about playing with fixed media by alternating moments of synchronism with moments of freedom, where the synchronicity of interpretive moments arise (the cadenza at E is the clearest example, but any figure in the piano without an arrow is also up to the performer).

Luciane's playing therefore determined the compositional strategy between the instrument and the electronics, but the main challenge I mentioned above remained: how could I create unity between real and virtual sound sources? The clearest connection is that certain gestures that are performed live also exist in some form in the electroacoustic part (the coin sounds are the best example of this, since they are played live and heard on the fixed part; another is the scratching, heard in both parts before 2:26 of B). Using the same microphone positions for both the recordings and the live performance helped strengthen this bond. Connecting the sound world of the piano to voices on cassettes was less obvious. Inspired by Janáček's *nápěvky mluvy,*[7] I imagined that the ‘hello’s’ and ‘goodbye’s’ of the voices could create a set of pitch signatures. Playing each ‘hello’ or ‘goodbye’ left a resonance in the piano, which I recorded. I then ordered these resonances intuitively by listening to them in different configurations. Analysing the spectra of these resonances gave me a chain of pitch sets, which I used to generate the piano material that accompanies each voice section.

Audio-cassette technology itself also holds memories: now almost historical, the sound and mechanism can be considered a metaphor for nostalgia. In *AhojAhoj,* the connection between the sound of the piano and the cassette deck is not on the timbral level, but are on a more conceptual one. The sound transformations of the three sounds in *AhojAhoj* (extended/prepared piano, voice and cassette deck) are those used analog tape transformation: speed-based transpositions, playback direction, splicing. The piece uses thus uses ‘tape,’ both in technologically and literally. I recorded myself activating the buttons and mechanism of a tape deck from very close, to give the impression, when diffused in the hall, that we are all inside a huge tape deck that takes up the whole space/stage, especially in the anecdotal middle section C where there is a nostalgic cassette “scene.”

The form of the work was thus determined by the ordering of voices around this middle section C, where I used a rare excerpt where my maternal grandmother is speaking English (for the benefit of my uncle Lionel, who does not speak Czech) and where she gives listeners at least a glimpse of when and where these recordings come from. Surprisingly, when I ordered the voice resonances by ear, I realized I had two sequences that happened to divide neatly into 'hello's' and 'goodbye's'. This generated the following sequence (the names correspond to the people speaking and can be found in the score):

---

[7] "For me, music emanating from instruments, whether in the works of Beethoven or of any other composer, contains little real truth. When anyone speaks to me, I listen more to the tonal modulations in his voice than to what he is actually saying. From this, I know at once what he is like, what he feels, whether he is lying, whether he is agitated or whether he is merely making conventional conversation. I can even feel, or rather hear, any hidden sorrow... I have been taking down speech melodies since the year ’97. I have a vast collection of notebooks filled with them—you see, they are my window through which I look into the soul. (Janáček quoted in (Kentridge, 2014, p. 175)).

Cue 1: Prologue (tape only)
    Hellos: Jožka – Babí Hronů – Anny – Děda Hronů (piano and tape)
Cue 2: Cassette scene – Babí Bambasková (tape only)
Cue 3: Goodbyes: Anny – Děda Hronů 2 – Teťicka Jirková – Jožka – Děda Bambasků 1 & 2 (piano and tape)
    Cadenza (piano solo)
Cue 4: Epilogue (Tape)

The different poetic layers and formal considerations came together with technical information in the score. It took me a long time to find the right notation for these elements and their layout on the page. The introduction to the score reads:

> The score shows what the pianist should do and describes what is heard on the soundtrack. The description of the electronics is divided into three layers: voices, articulations and resonances. Not every sound is notated, but all synchronous moments and cues can be found.
>
> The pianist must cue the beginning of four soundtracks.
>
> The stopwatch times are for rehearsal purposes, to indicate cues in the soundtrack. In performance, a performer should rely on the sounds heard on the soundtrack for timing. When an event in the piano part is connected to something in the soundtrack with an arrow, these should be synchronous. When there is no arrow, the timing is up to the performer.
>
> The piano should be amplified and the live sound mixed with the soundtrack.

Despite an apparent rigidity, the four cue points allowed Luciane to breathe her own timing into the fixed soundtrack. It also invited me to play with her at the console, launching the cues and adjusting the mix between the soundtrack and the amplification. In my control of the amplification fader, I realised the value a second musician in the room could offer, especially in offering the instrumental performer much greater ease and freedom. It also implied that the pianist could not play these works autonomously. I am still unsure of how to reconcile this issue, because I am not in a position to create a playback system sophisticated enough to make the kinds of decisions I would make as a performer. Thus *AhojAhoj* sets a baseline for performance that requires four cues to be launched and someone following the score to diffuse the amplified piano and soundtrack. Luciane cannot play the piece alone effectively, but has enough understanding of the issues to find people to help her.[8]

I present *AhojAhoj* here as an example of my research-creation methods, because even as the first and simplest of my doctoral works, it allowed me to start developing a way to study creative collaboration and composing for specific performers. Following a prior collaboration in with Luciane Cardassi (*undressing a past,* 2010), many of *AhojAhoj'*s fundamental premises were determined by past experience and its results greatly influenced our next joint venture, *Malý velký Svět*, which I discuss upcoming chapters. As such, it is a good example of *evolutivity*, and *'mise en cycle'* since this work also sparked the *Sharp Splinter* cycle itself. The archival nature of the collection of cassettes as well as my cataloguing and transformation of the voices using the piano's resonance and electroacoustic tools led to a more systematic approach my materials. It allowed me to experience the benefit of recordings not only for compositional purposes, but also in tracking my creative process. This led me to examine how I could adapt and improve my way of working to integrate more of such *reflexivity* for subsequent doctoral works. In my decision to use a fixed soundtrack and require both synchronism and improvisation from the performer, it is a good example of harnessing the *creativity* of the performer while at the same time illustrating that we could be remarkably creative without creating a new form or using novel technology. Finally, there is *hybridity* or entanglement on several levels: (a) the addition of piano resonances to the voices on the cassettes, (b) the generation of pitch sets for the piano from these voices, and (c) the use of amplified and recorded piano and cassette deck sounds that distort our perception of the sound and size of the originals.

---

[8] Luciane has found a very practical solution to her situation, which I think is worth mentioning here. She has often presented her work in places with little or no support for electroacoustic music with her partner Jess Harding running the electronics. Although he is not a trained musician, his computer skills have helped Luciane build a setup that they can run effectively together.

2.6 Example of Research-Creation Methods 2: *BitterSweet*

I wrote *BitterSweet,* a half-hour work for choir and electronics, for conductor Timothy Shantz and sopranos Katy Warke and Nina Hornjatkevyc. This commission for the Spiritus Chamber Choir Calgary meant I could explore creating a work for a larger group while still focusing the notion of specificity. In this case I focused my attention on Tim, who sang my first composition, a setting of my grandfather's poem *Paměť stromů* in 1997, and the two soloists, who I knew from singing in choirs at the University of Alberta around that time. The program note reads:

> *BitterSweet* explores the passage from inner darkness, through the beginning of hope, towards light. At the heart of the work are three poems from the collection *Přiběhy/parafráze* (*Stories/paraphrases*) by my late grandfather, the Czech poet and translator Jan Vladislav. The sonic material comes from various building blocks, including the sound of my grandfather's voice reciting the three poems, the motet *Tristis est anima mea* by Orlando Lasso, James MacMillan's *Sun Dogs*, and four folk songs. Other poetic materials include excerpts from Arthur Rimbaud and Antonin Artaud that my grandfather's poems make reference to, as well as a text written for the piece by Robert Glick. I thought of *BitterSweet* as a passion, and chose to give it a rather contemplative character, since Lent – and indeed other rites of cleansing and renewal – is a time of inner reflection. The choir is often creating just one of the layers of sound within the electronics that create slowly shifting textures.

Media 2. *BitterSweet*
http://www.birdonawire.ca/bittersweet-video/

I believe I chose to write this work about transition for Tim Shantz, Katy Warke and Nina Hornjatkevyc because they had shared one of these great threshold moments of my life: I was at a choral retreat with them when I learned that my father had passed away and they drove me home to my family. Although we never speak of it, I know we are all aware of this connection between our shared experience and the poetic theme of the work. Celebrating and exploiting this link is one of the ways in which this collaboration is an example of *subjectivity* and *self-reflexivity*.

BitterSweet is also an example of cycle and *evolutivity* in that I spent most of the fall of 2011 working on an acousmatic sketch, *BitterSweet 1.0 – Abstraction/Distillation*, in which I developed sound transformation techniques and tools to use in the subsequent work for choir. The ten-minute version allowed me to try out the form or shape of the work, since I was concerned about how to sonify the emotional gesture described in the program note. It was the first time I spent so much time making an elaborate sketch on a ‘simpler,’ smaller scale, and it proved incredibly useful, since it laid much of the technical groundwork for the longer, more elaborate version, allowing me to focus on the challenges specific to working with the Spiritus Chamber Choir.

Physical distance was one of these challenges: how would it be possible to get to know my collaborators’ specificities when they were so far away? In Tim’s case, I decided to study the music that inspired him and so *BitterSweet* is highly influenced by Tim’s doctoral thesis, which is a conductor’s analysis of James MacMillan’s *Sun-dogs*, a remarkable choral work whose premiere he participated in. My reading of Tim’s writing, rather than direct conversations, brought an epistemological theme to the work, which I elaborate in the subsequent chapter. It is, however, also a reconfirmation of my respect for the *creativity of the performer,* because Tim’s words greatly inspired me and brought me in intimate contact with MacMillan’s beautiful work. I recreated some of the passages the thesis led me towards in the DRONE CHOIR (movement 2 & 4). This effect, when I first heard it in *Sun-dogs*, sounded like a kind of spectral delay. I decided to take the effect into a more noisy timbre using only breath sounds (movement 5), and then exaggerated by further processing of similar source materials. This created a *hybridity* between the notated choral part and electronic processing. Tim’s instant recognition of the vocal texture and technique corroborated that our long-distance collaboration was working.

Another one of the challenges specific to *BitterSweet* was that neither the choir nor Tim, Katy or Nina had much experience with electroacoustic music and even less understanding of electroacoustic tools and interfaces. In such situations, despite everyone's best intentions, I've found that the ensemble often underestimates the time needed to calibrate the electronics. I knew that the rehearsal time of the ensemble, Spiritus Chamber Choir, Calgary, was limited, which meant that I needed a flexible yet limited setup.

Like *AhojAhoj*, *BitterSweet* has a number of cues that correspond to the different movements of the piece. I chose for a fixed timeline within movements because it would allow the conductor and choir to rehearse effectively without me. The rehearsals leading up to the premiere confirmed that I could have offered even more specific instructions on effective ways to practice with the videoscore I provided (more on this format in Chapter 5). It also reinforced the importance of a dedicated electronics and sound performer to perform and rehearse the piece. Since I was taking that role, and would probably do so again should another performance arise, I used the opportunity to extend my capabilities. Having made a sketch version, I was able to concentrate my efforts more in this direction, having dealt with other technical issues already. The following digression offers an insight into how my understanding and skill with real-time and/vs studio-based practice evolved to improve the *hybridity* of acoustic and electronic performance.

From the time I started altering my recorder sound with guitar pedals in 2004, I was aware of the amount and quality of attention that are divided between my instrument and the interface that plays through the loudspeakers. Buttons and faders require different attitudes; one cues and the other doses. On my acoustic instruments, I may have a more limited sound world, but my intuition and specificity is much greater. With practice and refinements in the interface, I wanted to find ways to make better choices about how to use my divided attention most effectively, and *BitterSweet* offered me an ideal situation to face this issue.

In *BitterSweet*, since I was mostly controlling the electronics with some attention to the live sound, I decided to experiment with more parameters of the sound processing using faders. I knew which parameters of the effects to control from the experience of creating the sketch version and the fixed soundtrack. With the limitations of choir rehearsal time, I added live processing only in the solo section. However, many layers in the soundtrack are the output of similar or related processing of my recordings of the choir (or of other choirs), which sometimes gives the impression that it is happening in real time. Like *AhojAhoj*'s cassette/voice/piano material sets, *BitterSweet* has layer groups. Each layer is the output of the group's original recording being played through a custom transforming digital instrument that I designed from a limited number of software plugins specifically for that group. I call them instruments because they have a particular action and sound, either automated or controlled in real time. Faders allow me to record envelopes intuitively in real time in the studio, which are then automated for performance, defining the action and sound of the instrument further. In this way, I end up practicing both the instrument and how it responds to a particular layer in the studio. This then translates directly to the choice of instruments and parameters that I can effectively control in performance: I invariably end up choosing those parameters that add the most human 'jitter' with the least amount of effort.[9]

Limited rehearsal time meant that clever cues were needed. While the movements each come with a practice soundtrack, in performance there are often cross-fades with flexible cue points. The conductor, therefore, has an interface that gives updated timing information to allow important synchronisms to occur. This creates a kind of freedom quotient in the way the different layer sets interact. The timeline is determined first by the soundtrack, but customised to a certain extent by the conductor and even individual singers (movement 1, 3 end of 5). This in-between position is also reflected in the choir's role: sometimes they are but background textures for a foreground figure in the digital instrument (movement 3), the voice reciting poetry in the soundtrack (beginning of 5) or a sample of folk singing (movement 8). In a way, it is a series of classic *figure(s) sur fond(s)*.

This increased awareness of the potential of concepts as basic as cues and envelopes is just one example of how the analytic and cumulative nature of research-creation methods pushed my musicianship to greater definition.

BitterSweet and *AhojAhoj* are both examples of my progress in devising a working method that focused on alternating periods of creation and reflection, adjusting my practice to incorporate lessons learned while refining my understanding of the implications of the initial creative and research questions. The next chapter goes into more specific detail on how these questions fit into electroacoustic music practice, so as to give a clearer picture of how I work within and sometimes without it.

---

[9] The effectiveness of the blend between the live voices with their pre-emptive and real-time transformations is greatly improved by using the same microphone setup for the recorded and live material. I do not have any scientific corroboration of this other than my experience, which has led me to invest in a set of microphones whose characteristics I trust and know: DPA’s d:screet™ line offers great fidelity and they are virtually invisible onstage.

3. ELECTROACOUSTIC MUSIC FOR SPECIFIC PERFORMERS

There are a variety of genres and an even greater diversity of situations in which electroacoustic and acoustic musicians come together. And while the collaborations here represent but a limited set of one kind, they share certain general practices and issues. An even shorter list of such considerations has consistently influenced my work, and therefore I consider them fundamental to my definition of electroacoustic music for specific performers. In this chapter, five notions – (1) idiom, (2) translation, (3) studio-atelier, (4) improvisation and (5) provisionality – are presented. These are further explained with examples from *Sharp Splinter* and *BitterSweet* after section 2, 3 and 5. As with the preceding chapter, the more theoretical notions offer a lens through which to consider these works, and yet at the same time the works themselves brought me to identify the notions themselves, demonstrating the bidirectional relationship of research-creation.

3.1 Idiom

My understanding of the specificity of musicians relates to a linguistic analogy. A humorous example of how the musical language of specific players is written into the songs of the time is illustrated in the following gathering of recollections by jazz historian John Hasse:

> Ellington created many compositions based on a riff or phrase Johnny Hodges or one of his other players might toss off. As Stanley Dance has written, “Many a popular song grew out of a phrase improvised during a jazz solo, and few soloists were as prodigal of such phrases as Hodges. ‘He has a million of ’em,’ Ellington admiringly remarked as Hodges casually furnished the riffs for an impromptu studio blues.” Moreover, some of Ellington’s pieces, by his own declaration, were created communally, at least until the late 1930s... Ellington’s use of his players’ melodic ideas became a bone of contention for some of his men—especially Hodges. “Every time Duke would take a few notes that were Johnny’s.” Helen Dance recalled, “Johnny would clear his throat and give him one of his looks out the side of his eye, and Duke knew that Johnny figured this was a hundred dollars.” At a December 1938 record date that produced a piece called *Hodge Podge* (credited to Ellington and Hodges), wrote Gary Giddins, “Hodges addressed to his leader an admonition that would become one of the taciturn saxophonist’s trademarks. ‘Come out of the kitchen,’ he said, his phrase for ‘Stop stealing my stuff.’ ” Rex Stewart, on the other hand, asserted that “we all brought bits and pieces of songs to the boss, maybe 16 bars, maybe only four, and then Duke added, changed or embellished, so really the finished product bore his stamp.” (Hasse, 1993, p. 215) (Hasse, quoting 4 others, 1993, p. 215)

I chose this passage since it also points the slippery terrain of ownership, and even authorship. I make no claim that my music could exist without the people I work with—it is clear to me, and I hope I make it clear to everyone, that if the work resonates, it is only because we made it together.

When I started this research, I was busy thinking of 'idiomatic' as being an adjective. I had been practicing and reading a lot around free improvisation, and had stumbled upon the 'idiomatic vs non-idiomatic' debate (Bailey, 1993). George Lewis' article about Eurological and Afrological traditions confirmed my feeling that I could embrace a mottled, idiomatic voice rather than striving towards a tabula rasa (Lewis, 2004). At this point, I no longer feel attached to the adjective or the debate, and the idea of idiomatic performers feels like a redundancy. These works are better served with the adjective 'specific,' thankfully less loaded than 'idiomatic.'

Still, the noun, whose Greek root *idioma* means 'special feature,' and whose modern definition as a phrase whose literal translation is impossible, feels pertinent. It relates to the specificity of language, and it seems to me that if I am to study someone's special features, Guilford's categories of fluency, originality, flexibility and sensitivity to problems (Baroni, 2006, p. 83) are a good place to start. I further find Baroni's notion of musical grammar – the inner workings of language – useful. He puts forward the following hypotheses:

> 1) a repeated exposure to the same kind of music can produce in the mind of the listener a prototypical model of the structure of this music;
> 2) such a model provides some orientation as to what kind of structures must be present and what must not: in other words it contains implicit rules;
> 3) "structural perception" is the faculty of intuitively recognizing whether different musical patterns are based on the same rules; stylistic competence is in turn on structural perceptions;
> 4) the systematic, analytic study of a given repertoire can transform an intuitive competence based on structural perceptions into an explicit knowledge of the grammar of that style;
> 5) the passage from intuitive competence to explicit knowledge does not change the nature of the subjacent cognitive processes: this means that syntactic rules can be conceived in any case as real cognitive processes;
> 6) while in listening it is not necessary to change intuition into explicit knowledge, this transformation can be necessary in composition, mainly when the rules to be applied are too complex to be managed intuitively; this is the difference, for example between the composition of a melody and that of a canon. (Baroni, 1999, p. 9)

My role then is to create and facilitate the exchange of implicit, intuitive competence to create situations in which we harness them for the work. I strive to compose in the idiom of my performers, with a fluent enough grammar that they recognize themselves.

Learning another musician's language can happen in many different ways. In the beginning I collected their ideas through interviews (*BitterSweet* and *Malý velký svět*), then from the repertoire they cared about (all works) and, increasingly, their instrumental sound and the more ephemeral musical ‘choice’ (*Love Song for MAD* and *Malý velký svět*). Fluency takes time and practice, and luckily my performers were extremely generous with both, giving me so much material to work with. What is specific to electroacoustic music is the prevalent use of recording, which in turn allows a repeated listening, classification and synthesis that crosses over into documentary and more empirical practice. And yet, as with fluency, there is much that goes beyond categories or vocabulary lists, which Yves Daoust expresses well when describing his use of recordings: “I am not manipulating abstract data but very living matter, which presents itself in all its complexity, its temporal pace, its dramatic weight and very often its cause (its narrative charge). The structure of the work flows from the chosen material.” (Daoust, 2000, p. 35) (Daoust, 2000, p. 35; my translation)

3.2 Translation

The closest analogy for the way I listen to and transform the voices, sounds and ideas of performers I work with is also linguistic: through translation. I've always felt that in learning a foreign language, I attained a certain level of fluency only when I could read its literature, and there is an aspect of that which is true when playing written music. Literature reveals and explains much about a language's nature and beauty. Similarly, the repertoire of (classically-trained) performers acts as a vehicle for their specific language: I am therefore interested in what pieces the performers I work with cherish, as well as their way of performing them.

A less literal kind of translation also comes into play. While preparing a *Love Song for MAD*, I discovered by chance that recording the instrument from a perspective close to that of the performer offered me an intimate, personal connection to what the performer might be listening to.[10] As someone who plays a very soft instrument, I quickly became aware that amplification offered the possibility of sharing the personal sounds that only I had access to with the audience. Lalitte points out how effective such amplification is in George Crumb's *Black Angels* (Lalitte, 2006, p. 98), as it creates the framework and material for the whole work. In these cases, the microphone acts as a translator, introducing utterances formerly delimited to a small acoustic region to new ears.

The translation analogy presents sound or text from one context within another, in a framework that focuses on idiom, authenticity, and, in the end, creativity. One of the notions that attracts me to this analogy is not what is necessarily lost but also what can be found:

> '... Creativity, the production of something new in culture and the individual, is possible only because there is a translation of knowledge from one language of representation to another. Due to existing differences between languages, the translation cannot in principle be completely adequate, and due to this, in the process of translation new knowledge is generated. No thinking apparatus can have only a single structure and be monolingual; it must necessarily include in it semiotic formations which make use of different languages and are mutually not translatable' (B. A. Uspenskij & Yu. M. Lotman in 1973, quoted in (Häyrynen, 2009, pp. 290-291))

Translation invites exchange; it generates misunderstandings, connections and parallel realities.

3.2.1 Example of Translation 1: *Love Song for MAD*

My late maternal grandfather, Jan Vladislav, was a poet and translator, which gave me an early awareness and appreciation for the kaleidoscopic meaning of words. Translating poetry invites an arborescence of interpretation, with possibilities branching out from poem to line to word, influenced by the tone, the style and the multitude of other conditions. Translation also necessarily leaves so many things out: poetry is often declamatory, often without offering notes on process or meaning. Like a splinter, it itches for further reflection. This example uses *Love Song for MAD* to illustrate the ways in which I use translation as well as how I highlight the gaps in meaning, the inevitable incompleteness of transmission. Here is the program note to introduce the work:

---

[10] I am referring here to a recording I made of Andréa Tyniec playing Ysayë's *Sonate Nº 2* with a DPA 4066 microphone attached to her head just about her ear, which gave me an idea of how she was listening to herself play.

> *Savoir, autre savoir, pas savoir, pour renseignement, savoir, pour devenir musicienne de la vérité./Věďet, věďet jinak, ne věďet, aby byl člověk informován, věďet, aby se stal hudebníkem pravdy.* Henri Michaux (translation Jan Vladislav)
> *J'aime mon travail d'un amour frénétique et perverti, comme un ascète le silice qui lui gratte le ventre./Miluji svou práci láskou šílenou a zvrácenou, jako askéta žíňenou košily, která mu rozdírá břicho*. Gustave Flaubert (translation Jan Vladislav)
>
> **A Love Song for MAD** for violin and electronics is written for Andréa Tyniec. In the writing of this piece, I asked Andréa to give me a piece that she loved to work with: the Ysayë Sonata Op. 27 No.2. It inspires each movement of this work and transformed excerpts of it appear, transformed in various ways. The other sounds featured in the work are a recording of my sister as a toddler that my mother had sent on cassette to her parents, the sound of a typewriter, and the sound of my own and my sister's voice reading translations of Henri Michaux and Gustave Flaubert that my grandfather Jan Vladislav had published. This work is dedicated to my sister, Madelaine.

Media 3. *Love Song for MAD*
http://www.birdonawire.ca/love-song-for-mad-video-recording/

Andréa Tyniec is a virtuosic soloist who I met during a three-month residency at the Banff Centre in 2010 (the same residency where I wrote *undressing a past* for Luciane Cardassi). After spending three months together, working independently on our own projects, she came into my studio to discuss commissioning a new work for me. I asked her to play me a work that had a special meaning for her, and she chose Ysayë's second violin sonata. Although I have little affinity for that repertoire, I was struck by the beauty of the sound Andréa drew from her instrument while playing this piece, and we immediately decided to take advantage it in the subsequent work.[11] In total, we had six workshops together over a period of three years, and the Ysayë sonata ran through these like a bloodline. Recordings from the second workshop supplied materials that ended up being used in every movement of *Love Song for*

---

[11] I use "take advantage" here as a translation of the Czech verb *využíti*, which my mother made me aware of when she was giving me advice about learning computer languages, saying I needed to be fluent enough to use its idiom to my advantage.

MAD. The fourth workshop focused on the second and third movement, and material from the sixth workshop was integrated into the fourth movement. I encouraged a process of accumulation because it mirrored the experience of familial relationships and of letter writing, the poetic themes of the work.

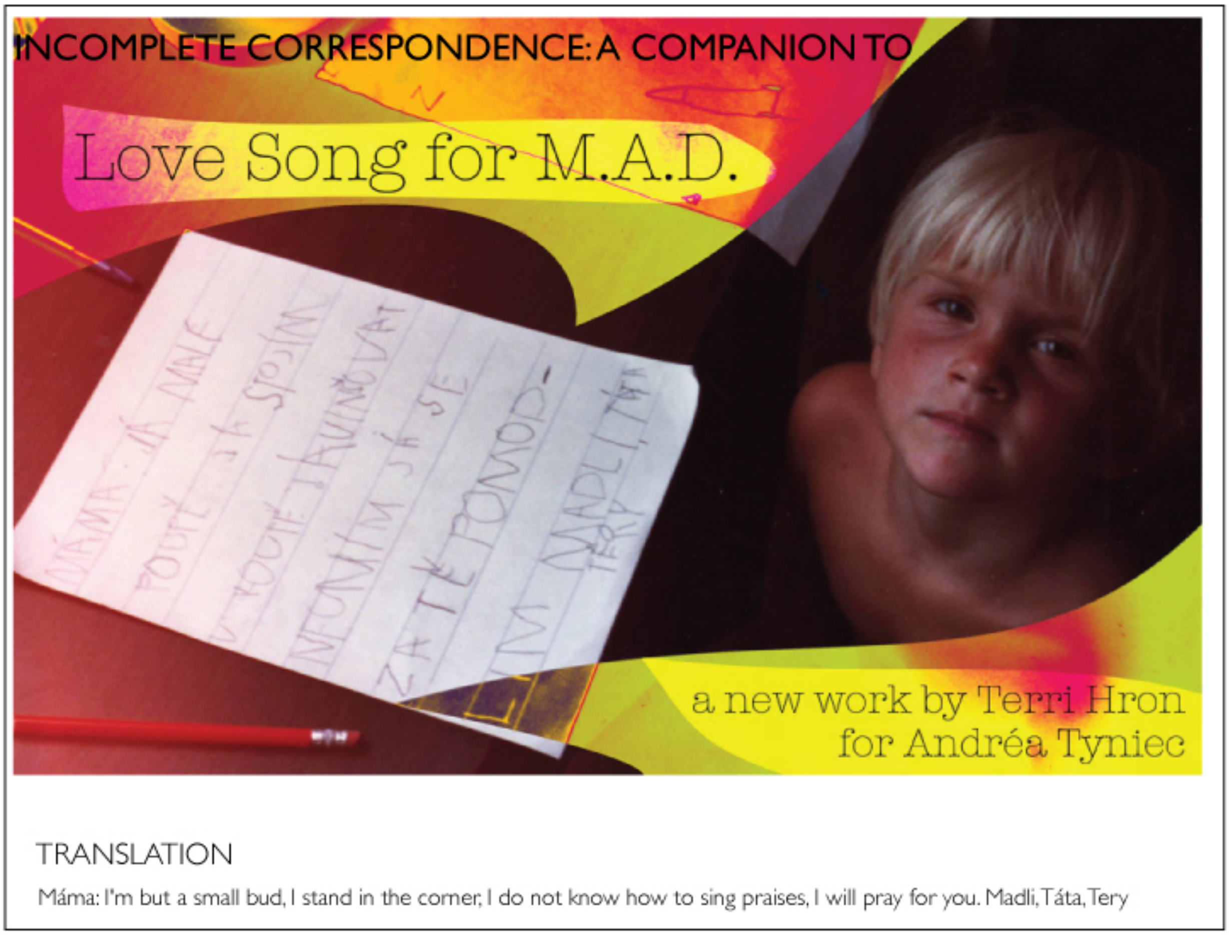
Love Song for MAD is about my closest blood relation, my sister. It was meant as a gift, celebrating the things we share, one of which is our affection for my grandfather's translations, and an interest in translation itself. I decided on the title of the *Sharp Splinter* cycle around the time I started working on *Love Song*, which comes from a line of my translation of the poem "Skyt v krajině tvého dětství/Sketch of the landscape of your childhood." This poem communicates an acceptance of the misunderstandings, connections and parallel realities inherent in the familial, historical gaze:

> He must have stood here somewhere,
> tall in his saddle, looking out,
> marvelling for the thousandth time
> how the yellow-red steppes,
> the hills and the thicket of wintery oaks
> eventually end in a bluish tumble
> towards a new infinity.
> And later it must have been here somewhere,
> that he threw up his hands,
> scattered his bones.
> The wolves spread them out,
> the winds carried them on,
> the ages.
> But a sharp splinter
> of his gaze,
> the one
> carried by blood,
> sailed the veins of all times
> and now
> chisels at something in you.
> *(Sketch of the landscape of your childhood)* (Vladislav, 1979, p. 4, my translation)

Love Song for MAD is the part of *Sharp Splinter* that represents letter correspondence from my family archive, and thus the whole project took on a rather epistemological character. I found the first half of a series of hundreds of letters dating from 1968 to 2009 from my mother, sorted and labelled, in my grandfather's flat in Prague at the same time as the cassettes I used in *AhojAhoj.* My mother was happy to give me the other half of the correspondence sent by my grandmother, unsorted but kept, that were in her basement in Edmonton, AB. The sheer volume of this material made the task of reading everything seem impossible, which was unlike my experience with the cassettes. In the sorted letters from my mother, I could at the very least refer to years that might be of interest to me. There was even a folder of letters that my grandfather had my grandmother transcribe on the typewriter for use in his memoir (Vladislav, 2012). This was the same typewritten hand of the unsorted box letters, from which I read more of less randomly. When it came time to making sense of how *Love Song for MAD* related to these writings and translations, I was struck by how inescapably incomplete my reading of the correspondence and its authors were: so much was lost. However, the string of associations I had made generated a new work.

The idea for *Incomplete Correspondence: A Companion to Love Song for MAD* sprang from my desire to leave breadcrumbs for future performers or enthusiasts, a kind of documentation of some of the poetic inspiration for the work. This companion to the score takes the form of a series of images, which create a kind of broken narrative that requires readers to make their own connections. Two images are provided for each movement. And, like in the composition, the connections between elements are often only hinted at, requiring the listener or reader to puzzle it out and interpret a meaning. In both sound and image, I present excerpts, with things underlined or highlighted, because they were important to me, and yet I refuse to spell things out, because *the questions and the gaps invite us to interpret our own histories*. I simply cannot summarize what it was like to be a second-generation Canadian born to Czech parents with a history of dissidence, and to grow into an intellectual understanding of that heritage only long after it was gone. If interested, performers/readers can follow the breadcrumbs; or perhaps they can make up their own story. I also believe that once a performer gets into the heart of preparing the work, the images will reveal their meaning through the experience of the score, and in this way, the two are companions.

For the purposes of this thesis, however, I will annotate the images with some explanations as a kind of poetic analysis of the work. Figure 2, the title page of *Incomplete Correspondence: A Companion to Love Song for MAD* shows the image I made when I first started working on the piece in 2010. In this picture taken by my father of my sister, she is sitting next to a letter to my mother for a birthday or name day, where she has written the well-known Czech rhyme that we sing when giving a present to someone in our family. This refers to the fact that *Love Song for MAD* is a gift for my sister, Madelaine.


INCOMPLETE CORRESPONDENCE: A COMPANION TO

Love Song for M.A.D.

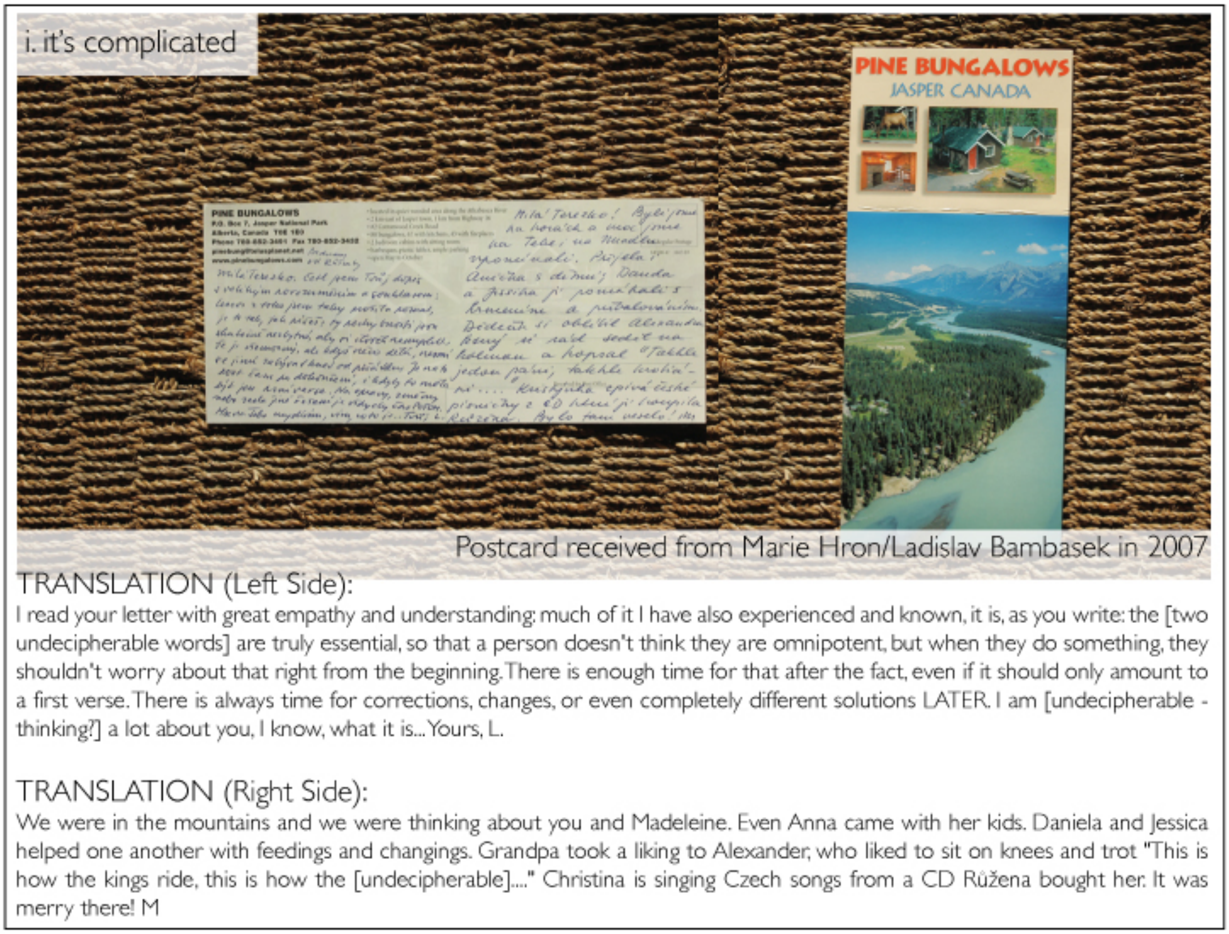
a new work by Terri Hron
for Andréa Tyniec

TRANSLATION

Máma: I'm but a small bud, I stand in the corner, I do not know how to sing praises, I will pray for you. Madli, Táta, Tery

Figure 2. *Love Song for MAD: Incomplete Correspondence* Page 1

Figure 3 and 4 belong to the first movement of *Love Song for MAD, i. it's complicated.* The title refers to the nature of our relationship and our childhood. The line from Henri Michaux, which we hear in the electronics, spoken in both French and my grandfather's Czech translation, is also poetically linked to the idea of complication: "Knowing, but knowing differently, not knowing, so that one is informed, but knowing, to become a musician of the truth" (my translation). These lines are recited as if spoken while typing them on a machine, and the rhythm of the typewriter is that of writing the words that are being spoken. This is a reference to the archive of letters (half of which were typed by my grandmother) that inspired *Love Song for MAD.* Figure 3 is an example of this epistemological tradition in our family – my mother and her father sent me this postcard, in which my grandfather (Jan Vladislav) makes reference to something he read in a letter I had written to my mother. The date is 2007, two years before his death, and it is the first time that he signs a letter to me with “Laďa” (Jan Vladislav was his pen name) and not “grandpa”: this small detail points to a change that occurred in our relationship in the last years of his life when he started to treat me like a fellow artist rather than as his grandchild. I found this to be an ironic contrast with the description of him playing with his great-grandchildren, teaching them another common Czech singsong.


PINE BUNGALOWS
JASPER CANADA

i. it's complicated

Postcard received from Marie Hron/Ladislav Bambasek in 2007

TRANSLATION (Left Side):

I read your letter with great empathy and understanding: much of it I have also experienced and known, it is, as you write: the [two undecipherable words] are truly essential, so that a person doesn't think they are omnipotent, but when they do something, they shouldn't worry about that right from the beginning. There is enough time for that after the fact, even if it should only amount to a first verse. There is always time for corrections, changes, or even completely different solutions LATER. I am [undecipherable - thinking?] a lot about you, I know, what it is... Yours, L.

TRANSLATION (Right Side):

We were in the mountains and we were thinking about you and Madeleine. Even Anna came with her kids. Daniela and Jessica helped one another with feedings and changings. Grandpa took a liking to Alexander, who liked to sit on knees and trot "This is how the kings ride, this is how the [undecipherable]...." Christina is singing Czech songs from a CD Růžena bought her. It was merry there! M

Figure 3. *Love Song for MAD: Incomplete Correspondence* Page 2

I do not remember what I wrote in the letter my grandfather is referring to, nor the words to the singsong my mother describes. There are also certain words I cannot make out in my grandfather's handwriting. This is an example of how memory is incomplete and records sometimes illegible, one of the poetic themes of *Love Song for MAD.*

Figure 4 focuses on how *i. it's complicated* relates to the first movement of Ysayë's *Sonate N^o 2*. First of all, the title of the movement, "Obsession," reminded me immediately of Madelaine (in fact, I believe I was so drawn to using this sonata as inspiration for a piece about and for her because the titles of the movements seemed to relate so well to her personality). Obsession is always complicated. There is also an inside joke here, since the "scenes" between my mother and my sister (Rehearsal marks C and E), taken from a cassette made in 1977 (the year I was born, when my sister was two), refer to my sister having already eaten something – food is one of my sister's obsessions.

The score depicted is the copy I used to create the first movement. In this sonata, Ysayë uses quotations from Bach, which gave me confidence to create yet another layer that used both these Bach excerpts as well as excerpts from Ysayë. In *Love Song for MAD,* the violinist never plays the Bach excerpts verbatim, however. In *i. it's complicated*, the Bach excerpts pass by in the electronics (Cue 6, 8, 13, 36). The parts labelled "Phrase" were the building blocks for what the live violin part: Phrase 1A is heard at rehearsal mark B, Phrase 2 on the second system of page 1, Phrase 3 at cue 18. A violinist familiar with this sonata will recognize these references. I used a process of erasure, sometimes eliding the space created by the missing notes (rehearsal mark B), other times replacing the notes with silence (cue 18). This process continues for the rest of the movement, and is also, to some extent, used in *iii. has its moments but...*

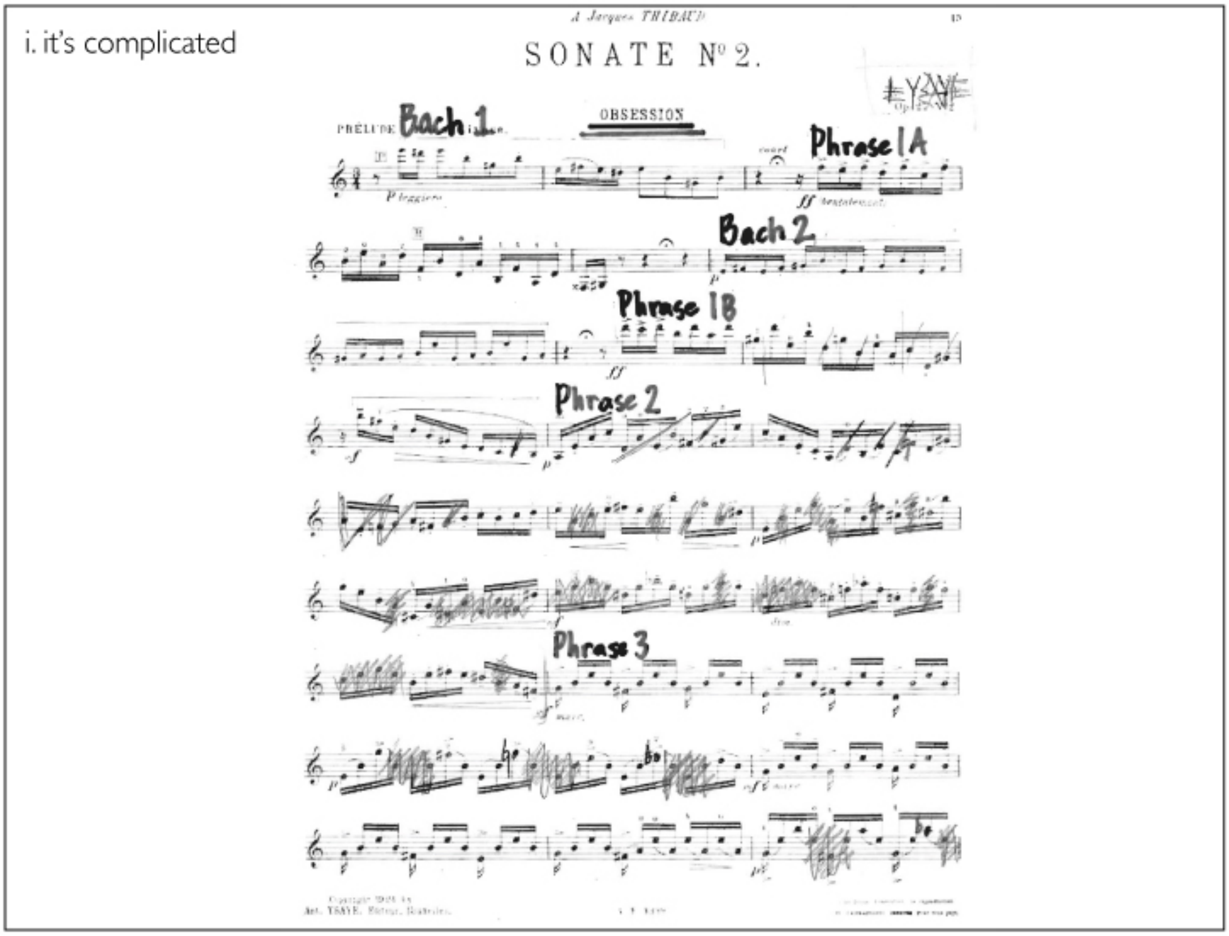
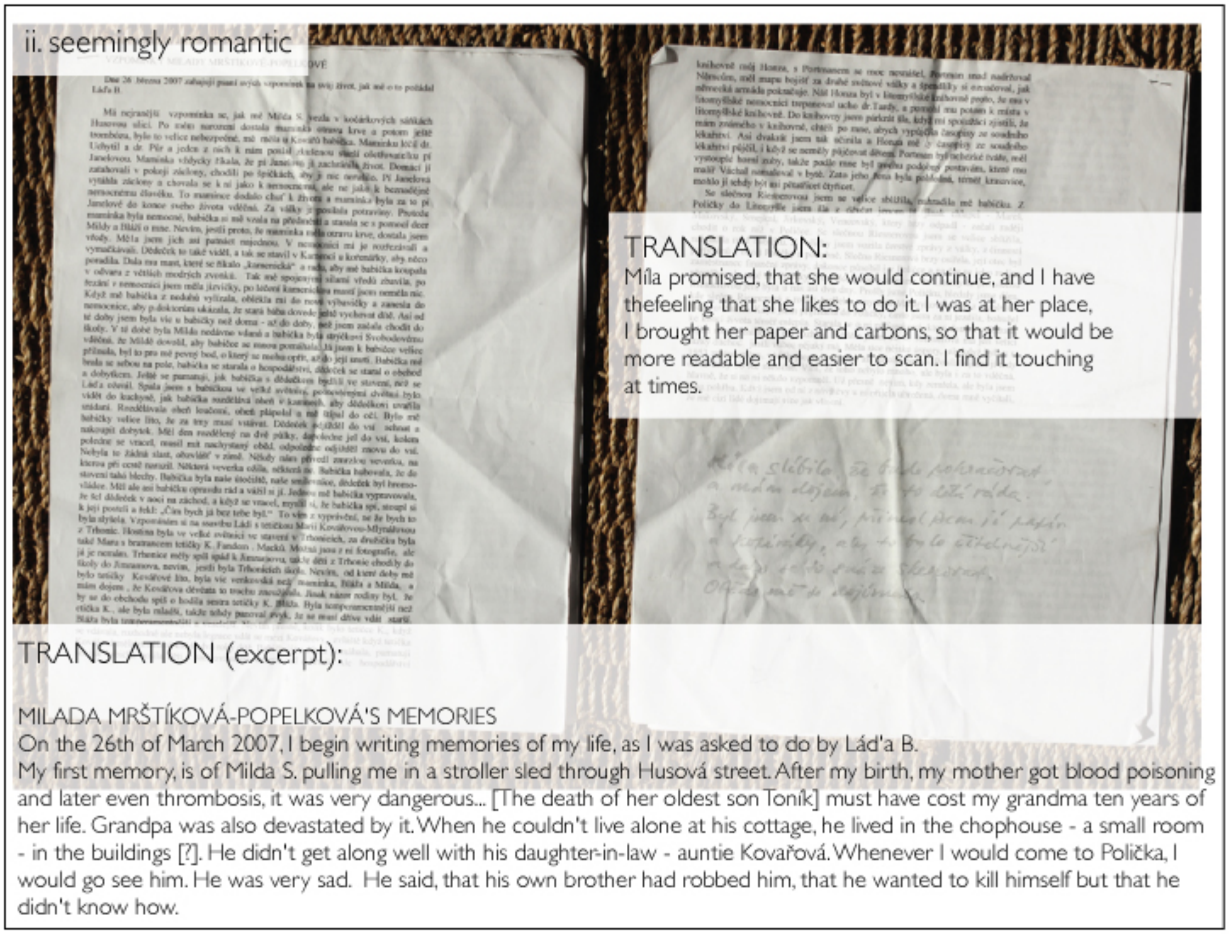

i. it's complicated
A Jacques THIBAUD
SONATE Nº 2.
PRÉLUDE
Bach 1
OBSESSION
Phrase 1A
Bach 2
Phrase 1B
Phrase 2
Phrase 3

Figure 4. *Love Song for MAD: Incomplete Correspondence* Page 3

Figure 5 and 6 refer to the second movement of *Love Song for MAD*, *ii. seemingly romantic*. Figure 5 is a transcription my grandfather (Jan Vladislav/Laďa B.) made of some memories that his sister-in-law, my great-aunt Míla, had typed up at his request. She died shortly thereafter. My sister and I both had a close relationship with Míla, because we often stayed with her on visits to Prague, right from the first time we were able to go to Czechoslovakia in 1984. The memories open with the first two lines I translated, but quickly turn from this rather romantic image to the rather tragic fates of certain members of her family. Míla had an exceptional memory, and was in some ways the authority on the Mrštík saga (which is probably why my grandfather had asked her to write down her memories). There was also something melancholic in her nature.



ii. seemingly romantic

TRANSLATION:

Míla promised, that she would continue, and I have thefeeling that she likes to do it. I was at her place, I brought her paper and carbons, so that it would be more readable and easier to scan. I find it touching at times.

TRANSLATION (excerpt):

MILADA MRŠTÍKOVÁ-POPELKOVÁ'S MEMORIES

On the 26th of March 2007, I begin writing memories of my life, as I was asked to do by Lád'a B.

My first memory, is of Milda S. pulling me in a stroller sled through Husová street. After my birth, my mother got blood poisoning and later even thrombosis, it was very dangerous... [The death of her oldest son Toník] must have cost my grandma ten years of her life. Grandpa was also devastated by it. When he couldn't live alone at his cottage, he lived in the chophouse - a small room - in the buildings [?]. He didn't get along well with his daughter-in-law - auntie Kovařová. Whenever I would come to Polička, I would go see him. He was very sad. He said, that his own brother had robbed him, that he wanted to kill himself but that he didn't know how.

Figure 5. *Love Song for MAD: Incomplete Correspondence* Page 4

This short document is so heartfelt and touching that my grandfather’s hand-written addendum to this copy we received feels rather ironic. Like many things in *Love Song for MAD,* this is a private message to my sister, who would certainly understand the choice of texts and translations.

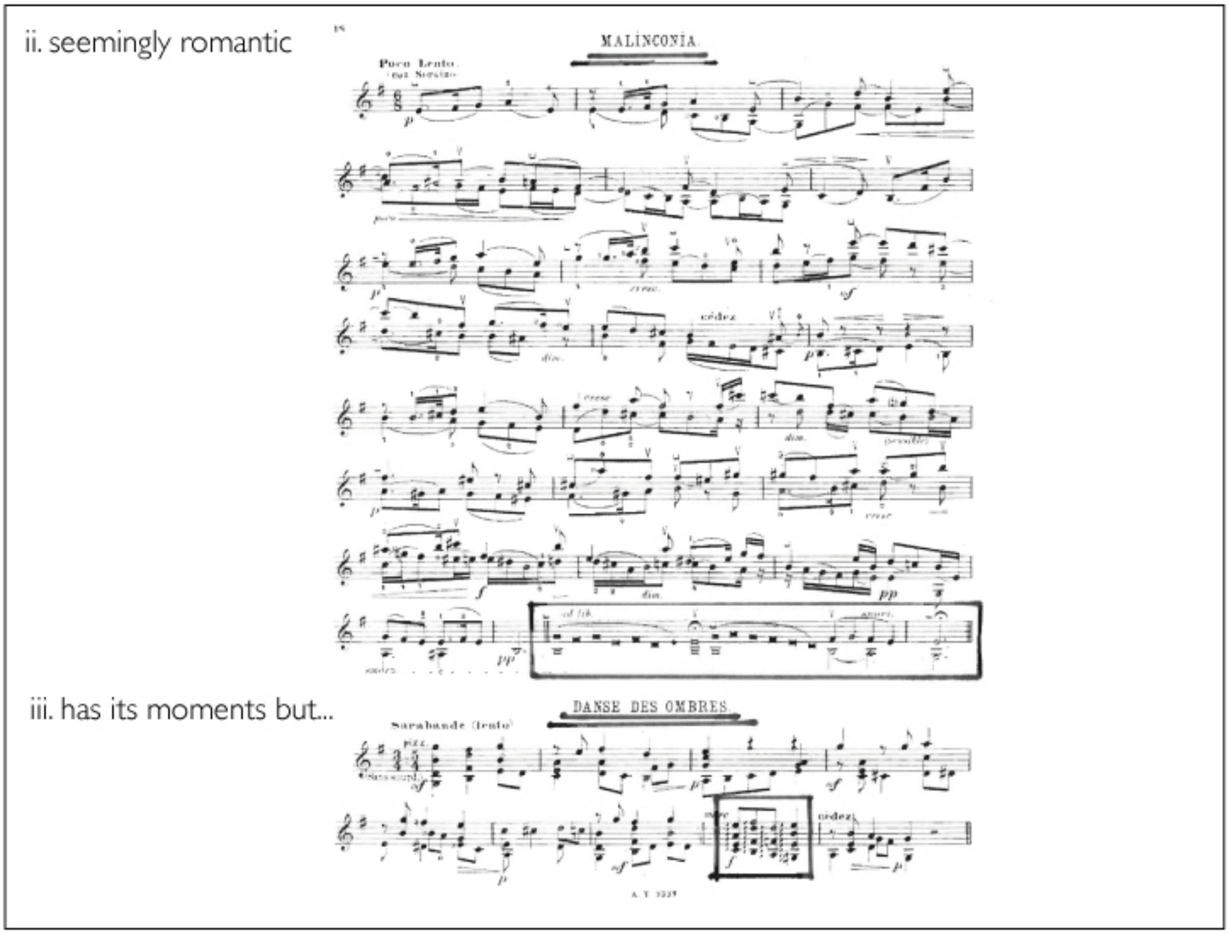
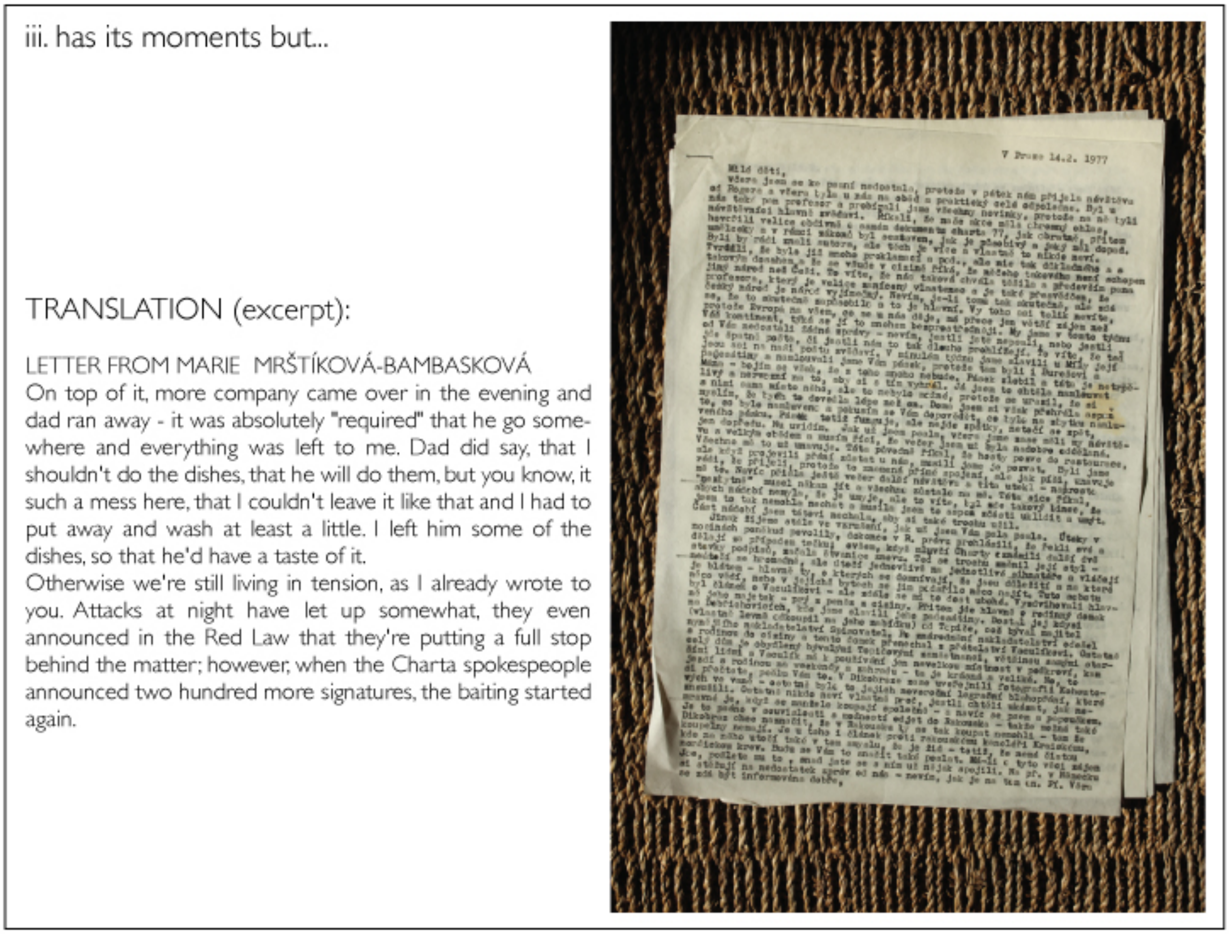

ii. seemingly romantic
MALINCONIA
Poco Lento
iii. has its moments but...
DANSE DES OMBRES
Sarabande (lento)
cédez

Figure 6. *Love Song for MAD: Incomplete Correspondence* Page 5

The only pitch material I took from the second movement of Ysayë's *Sonata N^o 2* was the quotation of the Gregorian *Dies Irae* chant that appears in the box at the end: the first and last phrases of *ii. seemingly romantic* are its retrograde. The fixed soundtrack is also a processed version of this *Dies Irae* phrase played and improvised upon by Andréa Tyniec. The character is strongly tied to the title of Ysayë's second movement, "Malinconia," itself a rather Romantic sentiment.

Figure 6 also makes reference to movement *iii. has its moments, but...* and the title of Ysayë's third movement "Danse des ombres/Dance of shadows" is underlined because of its poetic importance. The shadow I refer to in the title is my late father, whose voice we hear (taken from the same cassette as the one I used for *i. it's complicated*) as he tries to make my sister sing the song "Houpy, houpinky" (beginning of rehearsal mark B) and get her to say "voda/water" for the cassette (L). The happiness in his voice is contrasted by the Flaubert text I whisper "I love my work with a frenetic and perverted ardour, like an ascetic the hair shirt that scratches his belly raw." This time, the typewriter is not in sync with the words but with the violin phrases. The violin part is once again made using the erasure technique applied to the Ysayë, both eliding the omitted notes (B & K) and replacing them with breaks (F & M). To this are added materials that were generated through spectral analyses of my father's voice, generally in double stops (end of I and J). This is another kind of translation, this time not in words but in sound.



iii. has its moments but...

TRANSLATION (excerpt):

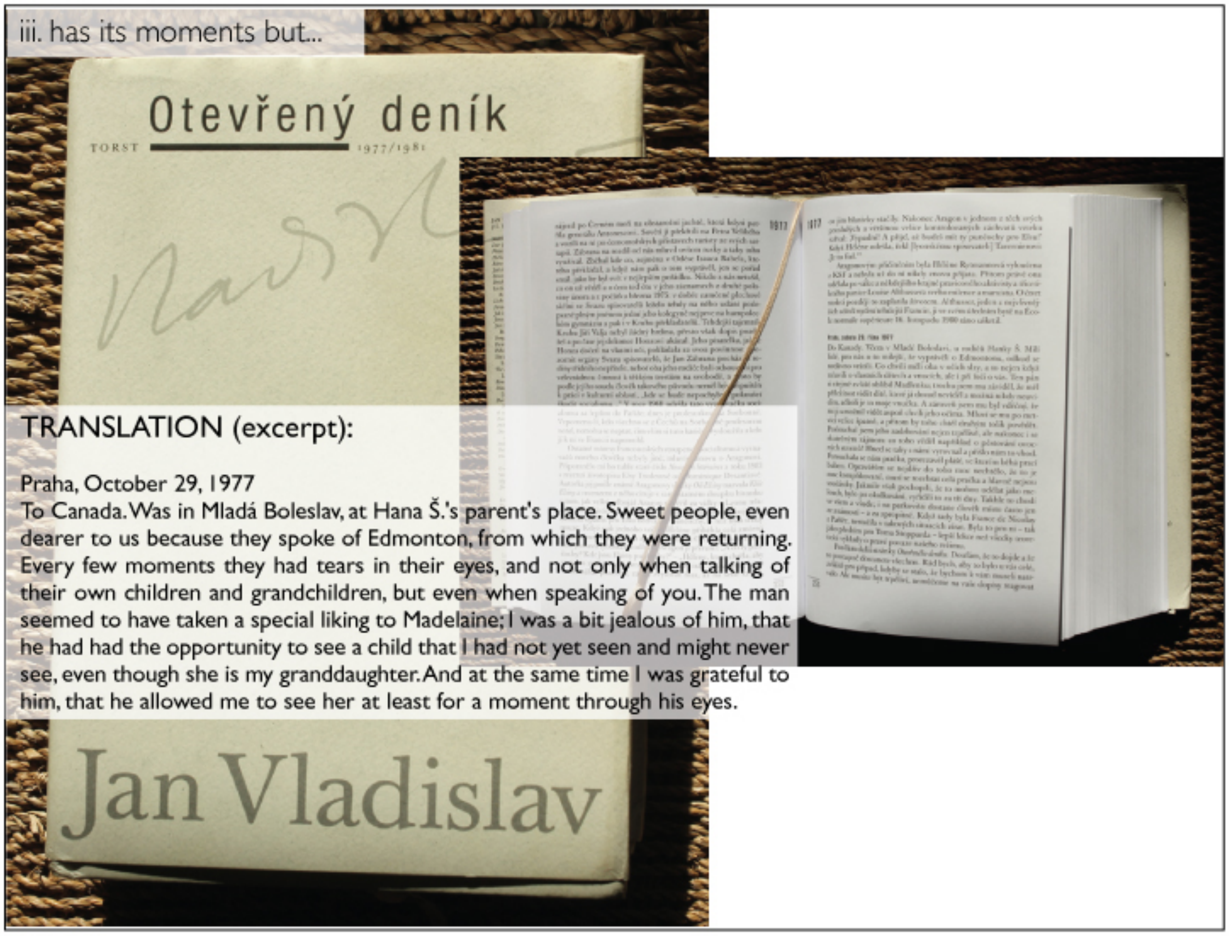
LETTER FROM MARIE MRŠTÍKOVÁ-BAMBASKOVÁ

On top of it, more company came over in the evening and dad ran away - it was absolutely "required" that he go somewhere and everything was left to me. Dad did say, that I shouldn't do the dishes, that he will do them, but you know, it such a mess here, that I couldn't leave it like that and I had to put away and wash at least a little. I left him some of the dishes, so that he'd have a taste of it.

Otherwise we're still living in tension, as I already wrote to you. Attacks at night have let up somewhat, they even announced in the Red Law that they're putting a full stop behind the matter; however, when the Charta spokespeople announced two hundred more signatures, the baiting started again.

Figure 7. *Love Song for MAD: Incomplete Correspondence* Page 6

Figure 7 and 8 are more references to shadows: faith in and anxiety about my grandparents' dissident endeavours cast an important influence our childhood. Our physical remove gave us the privilege of these being mostly our parents' concern, but I believe that what we didn't understand as children led both my sister and me to our interest in all these letters and documents as adults. Figure 7 shows one of the typewritten letters sent by my grandmother. I chose to translate this particular excerpt because it contrasts the often-times frustrating reality of my grandparents' rocky relationship with their togetherness in facing the repercussions of their involvement in the Charta 77 movement.



TRANSLATION (excerpt):

Praha, October 29, 1977
To Canada. Was in Mladá Boleslav, at Hana Š.'s parent's place. Sweet people, even dearer to us because they spoke of Edmonton, from which they were returning. Every few moments they had tears in their eyes, and not only when talking of their own children and grandchildren, but even when speaking of you. The man seemed to have taken a special liking to Madelaine; I was a bit jealous of him, that he had had the opportunity to see a child that I had not yet seen and might never see, even though she is my granddaughter. And at the same time I was grateful to him, that he allowed me to see her at least for a moment through his eyes.

Figure 8. *Love Song for MAD: Incomplete Correspondence* Page 7

An adequate explanation of Charta 77 is beyond my powers, a point impressed upon me by the length and depth of the *Open Diary* shown in Figure 8. This is a journal my grandfather kept from 1977 leading up to the signing of Charta until his forced exile to Paris in 1981, which he edited and annotated in the last years of his life. To summarize very briefly, the Charta movement brought together artists, writers, musicians and intellectuals of many kinds, calling on the oppressive totalitarian regime to adhere to its commitments to human rights. Circulating the text – and obviously signing it – was considered a political crime. Many signatories became important political figures in the post-Velvet revolution. *Open Diary* bears witness to the daily life of those involved in the movement and other *samizdat* activities.

Figure 9 shows my sister Madelaine furiously typing on our family machine, as if embodying the same dissident fervour. *iv. i'd have a quarrel with the world* relates to the title of the fourth movement of the Ysayë *Sonata N^o 2,* "Les Furies."

The boxed section of the score shown in Figure 9 is used in *iv. i'll have a quarrel with the world.* This time, I traded my own alterations/extrapolations of the score for ones suggested to me by Andréa Tyniec: in our fifth workshop together, I recorded her improvising with elements/pieces of this movement, and then chose several for the movement. I had given her the instruction to be extreme in her timing and intonation. The boxed passage is played in this extreme way at rehearsal mark G.

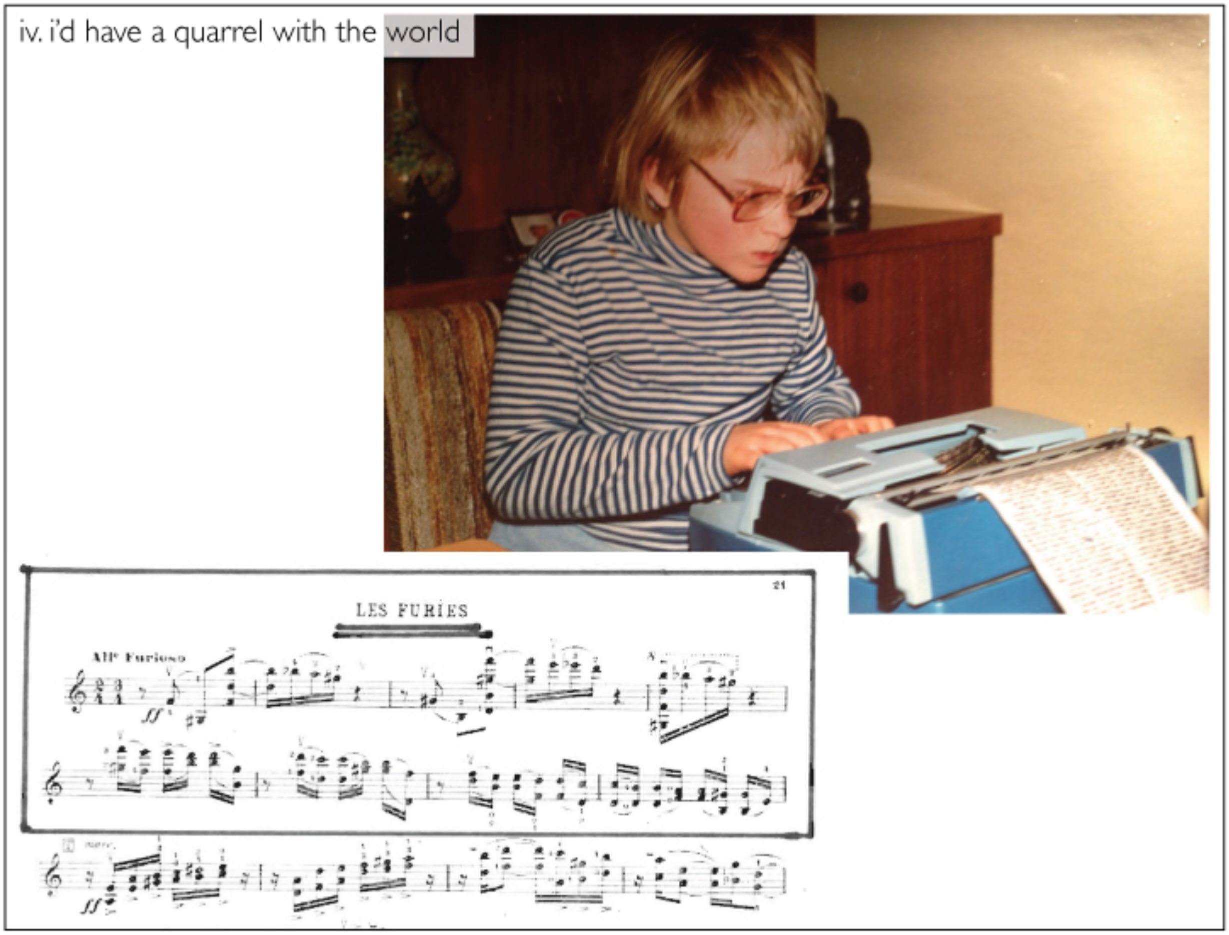
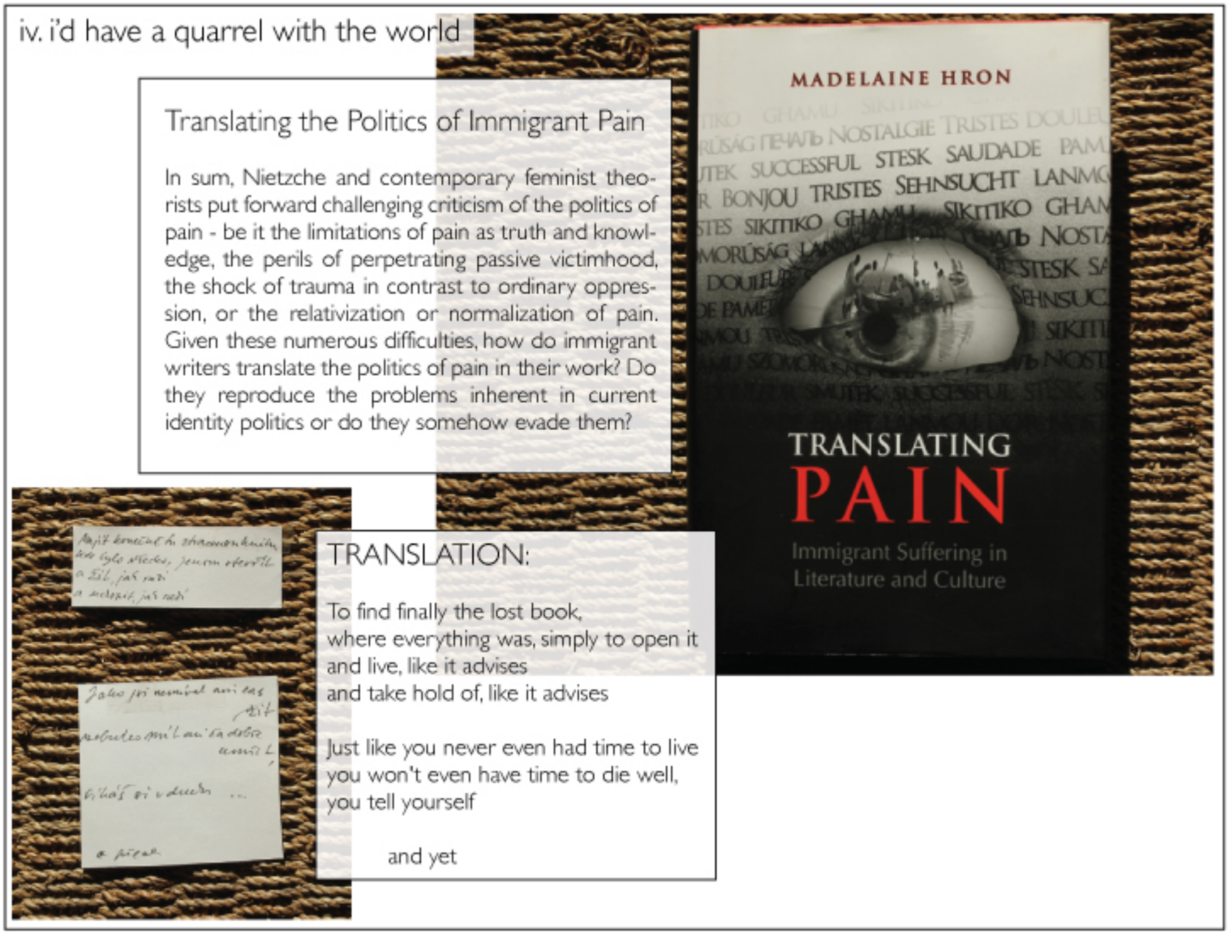

iv. i'd have a quarrel with the world
LES FURIES
21
All° Furioso

Figure 9. *Love Song for MAD: Incomplete Correspondence* Page 8

The "world" of this fourth movement's title comes into play poetically in a number of ways. One is the use of environmental sounds (crickets, planes, bees), opening its character outwards from the restricted world of violin, voice and typewriter. Another reference is to my sister's adult world, which was obviously highly influenced by our immigrant experience and dissident heritage. The passage that I quote in Figure 10 summarizes much of what her book explores, and it brings us back to the idea of translation, here not of a text but of experience. This text is contrasted with the verses written on small bits of paper that I found stuck to my grandfather's computer when I visited his flat after he had passed away in 2009. The mythic "lost book," where life experience would be explained, seemed a good companion to my sister's, which explores the difficulties – if not impossibility – of translating experience in writing. My grandfather's snippets also tie in with what he writes in the postcard from Figure 3 – that perhaps certain endeavours lead only to a first line. I found these snippets later in a poem from his last collection, *Příbehy/parafráze* (*Tales/paraphrases)*.



iv. i'd have a quarrel with the world

Translating the Politics of Immigrant Pain

In sum, Nietzche and contemporary feminist theorists put forward challenging criticism of the politics of pain - be it the limitations of pain as truth and knowledge, the perils of perpetrating passive victimhood, the shock of trauma in contrast to ordinary oppression, or the relativization or normalization of pain. Given these numerous difficulties, how do immigrant writers translate the politics of pain in their work? Do they reproduce the problems inherent in current identity politics or do they somehow evade them?

MADELAINE HRON

TRANSLATING PAIN

Immigrant Suffering in Literature and Culture

Najít konečně tu ztracenou knihu,
kde bylo všecko, jenom otevřít
a žít, jak radí
a uchopit, jak radí

Jako jsi neměl ani čas
žít
nebudeš mít ani čas dobře
umřít,
říkáš si v duchu ...

a přece

TRANSLATION:

To find finally the lost book,
where everything was, simply to open it
and live, like it advises
and take hold of, like it advises

Just like you never even had time to live
you won't even have time to die well,
you tell yourself

and yet

Figure 10. *Love Song for MAD: Incomplete Correspondence* Page 9.

Incomplete Correspondence: A companion to Love Song for MAD thus offers some clues to those interested in the multiplicity of associations and references that went into composing the work. This account of some of these connections is offered as an (incomplete) analysis of the poetic form and links that are there. Readers, however, are encouraged to do their own research and make their own connections, which is a kind of mimesis for the process a performer experiences when preparing a new interpretation.

3.2.2 Example of Translation 2: *BitterSweet*

Figure 10 offers a convenient segue into the following shorter discussion of how translation influenced another of my doctoral works, *BitterSweet*. In her book, *Translating Pain*, my sister includes a chapter entitled *'The Suffering of Return': Painful Detours in Czech Novels of Return.* My grandfather's novel of return ended up being a collection of poetry about his last years in exile, which were complicated by my grandmother long illness and death shortly before his move to Prague in 2003. This collection, *Příbehy/parafráze* (*Tales/paraphrases*), was published only posthumously, but there was a radio program that recorded him reading several of its poems. I first used some of these in the performance of *undressing a past* for pianist Luciane Cardassi in 2010: the recordings created interludes between movements.

The incredibly touching words and his delivery of them resonated with me so deeply that I wanted to use them again in *BitterSweet.* They seemed particularly apt to convey the emotional transition I discuss in Chapter 2.6. The inspiration for this transition came from a feeling I had every time I played Orlando Lasso's *Tristis est anima mea*: towards the end of the piece, on the words "for you," there is an amazing moment of word painting where the texture suddenly changes from repeated falling motives towards a beautiful opening of the register. The motet is a setting of Christ's prayer in the garden, before he is taken before Pontius Pilate, and the dark, descending desperation is almost miraculously converted to light on those words. I wanted to translate that gesture, that feeling of no turning back, and I wanted the original moment from the Lasso to feature somewhere in the work (11:49 on the recording).

Paraphrasing involves similar concerns as does translation. It occurred to me later, when I saw the title of the collection of poems, *Příbehy/parafráze* (*Tales/paraphrases*), where the poems I used are published, that there is a paraphrasing of Lasso, MacMillan and other pre-existing music that relates quite directly to the use of other texts in my grandfather's poems. In the DRONE CHOIR sections of movement 2 and 4 (3:49 and 9:00 in the recording), I use a technique borrowed from *Sun-dogs* as a setting of texts by Flaubert and Artaud to which the poems read by my grandfather make reference.

Allowing *Sun-dogs* to be an intrinsic part of the choral writing was my way of making the work specific to Tim (see Chapter 2.6). I wanted a similar connection to the soprano soloists, Katy Warke and Nina Hornjatkevyc, so I asked them to sing something for me that felt like second nature (the reader will recognize this tactic from my discussion of *Love Song for MAD,* whose seminal idea sprang from a similar recording of the work's commissioner). They both chose a folksong they knew from childhood (featured at 5:32 & 18:31). Tim wanted to pair *BitterSweet* in concert with James MacMillan's *The Seven Last Words of Christ*, and thus a Lenten theme was established. The last recordings I chose represent Lenten folklore from a Slavic perspective, *Pomlázka* (17:15) and *Tatranky* (19:15). The live, recorded and processed versions thus move in and out of the foreground, different translations of a connected set of works.

The main voice that I wanted to feature in this work is my grandfather's, and therefore my translations of some of his last poems were projected to accompany our voices (0:29, 8:49, 9:27, 10:44, 19:25, 19:50, 24:38, 25:10, 28:16). In addition to the literal translations, there are numerous transformations of his voice, especially elaborate in the first and last text (0:29 and 28:16), in which I tried to translate in sound the particularities of his voice and timing, which I found so profoundly touching. These are aspects so personal that I am not sure if they can ever be transmitted, yet this is also one of the characteristics of translation. All of these various poetic strands come together in the effort towards sounding the transformative moment I felt originally in the Lasso. In 1979, thirty years before he recorded these poems, Jan Vladislav wrote the following his journal, which I apply to *BitterSweet* and the paschal mystery:

> Indeed in our incapability to see through and out to the fundamental moments of our personal or national and world history perhaps instigates that we so persistently seek the anticipated, yet lost equilibrium, the symmetry that would complete and explain our own and the world's image. Besides, if this knowledge were possible, it would probably be but something passing, like the fusion of particles or anti-particles, the explosion of a world, understanding, end. And a rebirth, something that happens every four weeks above us with the moon - metaphorically: the old moon goes into darkness, into the embrace of the new. (Vladislav, 2012, pp. 832-833)

Both *BitterSweet* and *Love Song for MAD* make abundant use of external references, which are sometimes translated literally, but more often than not are allowed to get lost in the impossibility of translation, creating instead their own connections, stories and eventually even sounds.

3.3 Studio – Atelier

Returning now to the more theoretical discussion of my electroacoustic music for specific performers, I would argue that the foremost locus for the creation of connections, stories and sounds in my works happens in the workshop and studio. Brown & Dillon explain this kind of creative practice with the idea of meaningful engagement:

> Our notion of meaningful engagement relates to a way of behaving or acting that embodies what Martin Heidegger calls an 'involvement' in events that is based on 'being-in-the-world'. From this perspective an involved person has an intuitive, rather than an intellectual, connection with their world, not unlike the sportsperson who is involved in their game by being 'in the zone'. This involvement reflects a philosophical emphasis, in Heidegger and other phenomenologists, on human participation in the world and in the generation of knowledge and meaning. Heidegger was reacting against a tradition of objectifying the world as a place that exists independently of human interpretation or manipulation awaiting observation and discovery. In its place he proposed that people are located in the world as an active part of it and that understanding and meaning emerge from interaction with the world. The relevance of Heidegger's phenomenological approach to music-making was underscored by his particular concern for artistic activities, most notably poetry, as providing a particular kind of disposition. Heidegger suggested that effective art-making requires a different level of involvement than habitual or superficial technical work, and articulated this as a bringing together of *techne* and *poiésis.* (Brown & Dillon, 2013, p. 80)

I believe that my desire to translate someone's idiom as a channel for a new work—a bespoke kind of composition—requires a lot of time and involvement in the workshop. I prefer to think French word *atelier*, which, unlike the English word studio that brings to mind a rather solitary, enclosed environment, brings with it more open, artisanal connotations. Brown and Dillon bring together the two activities of the studio/atelier within 'meaningful engagement', which they further define in their "five modes of compositional engagement." I offer this rather lengthy citation here because I am touched by how clearly they have defined and captured the spirit of these different attitudes:

> 1. *Attending* – the composer can act as an audience to their own or others' work, in the presence of a performance, recording or simply imagining the work. While attending, the composer stands apart from the compositional process such that the composing medium, tool, score or performer is objectified. A composer may use this mode to evaluate the completeness of a work or to attempt to dispassionately assess the development of their work.
> 2. *Evaluating* – this mode of engagement is one where a composer examines works or materials in an analytical or judgemental way. As an evaluator, a composer may judge draft material for possible inclusion in a composition, look for links and connections that assist structural organisation, or look to see how multiple works can make up a program, album or oeuvre.
> 3. *Directing* – crafting a composition has much to do with articulating a musical statement through controlling and moulding musical materials. When engaged in

> the mode of directing, a composer may consciously manipulate musical materials to shape them into a desirable form or instruct others or some automated process to achieve their desired outcome. This mode of engagement is the one most commonly understood as compositional activity since it involves the deliberate manipulation of musical representations.
>
> 4. *Exploring* – in the explorer mode of engagement, a composer is involved in an open-ended experimentation with musical materials. Exploring may involve a process of seeking material or organisational patterns for inclusion in a composition. Unlike the mode of directing, which is often associated with the pursuit of a clear goal, exploration is typically part of a process of clarifying a loosely formed conception within partially defined boundaries.
> 5. *Embodying* – at times compositional activity might be best characterised as improvisatory or intuitive. The embodied mode of engagement acknowledges such moments. Often in this mode, the composer is comfortable to fall back on learned patterns and habits as an improvising performer might do. Unlike performance, however, embodiment in composing need not be a real-time activity and so feedback processes may well be deferred. (Brown & Dillon, 2013, pp. 82-84)

I recognize these modes as the various roles I take in workshops with live performers and in the electroacoustic studio with the recordings of them. I also feel that I cycle through the different modes numerous times over a long incubation period, which gives me a chance to integrate and revise often very disparate ideas within a unified whole. The composition of *Malý velký svět* involved 25 days of workshops with the performers, spread over 6 meetings in two years. In contrast, I built *BitterSweet*, where workshop time was limited, mostly in the studio, augmenting the layers I recorded in workshops with music that was related to the conductor or soloists in some way. In working thus, I was able to privilege the eye-to-eye, physical experiences with performers as the most important source, often extending these shared moments by using their mediated traces.

The following section uses *Malý velký svět* as an example of my studio/atelier practice, in particular how the final work was built up through repeated workshops and sketches.

3.3.1 Example of Studio/Atelier practice 1: *Sketches for Malý velký Svět*

By far the most elaborate collaborative and multi-layered and multi-faceted work I have written until now, *Malý velký Svět* benefitted from the experiences and lessons drawn from *AhojAhoj*, *Love Song for MAD* and *BitterSweet*. It was the last part of the *Sharp Splinter* cycle, and once again the program note can serve as a brief introduction to the work:

> **Malý velký svět (Small big World)** (30’) for pianist(s), electronics and video is written for Luciane Cardassi, Rosabel Choi and Katherine Dowling. I met each of these pianists at the Banff Centre during my residencies there, and was struck by their individual approaches and

> sound in performing contemporary repertoire. In my desire to write pieces for specific individuals, I enjoyed the challenge of writing a piece that features three individuals on the same instrument. They take turns being the soloist, and their solos emphasize their particular approach to the instrument. This piece can be accompanied by home movies that my father made. The piece revolves around childhood and games, as well as the playful ways children use and learn to play the piano. There are musical allusions to and quotations of Robert Schumann's *Waldszenen,* Franz Liszt's *Sonata in b minor,* Alban Berg's *Piano Sonata Opus 1*, Béla Bartók's *For Children,* Francis Dhomont's *Forêt Profonde,* and Linda Catlin Smith's *Thought and Desire*. I also quote all three pianists, whose improvisations were reproduced verbatim in parts of the piece. This piece is dedicated to my father, Franta.

Anyone who has seen my *atelier* knows that I am a collector, and many of my collections date back to my childhood. When reflecting upon *Malý velký svět* and its themes of childhood and play, I realized that the notion of collection, and the *atelier* as a space to practice this art/obsession, was a key to understanding the work. This is underscored by the origins of the work, described in an entry from the hyperscore of *Malý velký svět* (I discuss hyperscores as a storage device for the collection of documentation about collaboration in Chapter 5):

> My father was an amateur film and photo enthusiast. It was one of his few hobbies, the others being fighter planes and cars. Part of what attracted him was the technology. In his den, I found his collections after he died: films of my childhood that he spliced together, loads of boxes mailed from the developer, opened but not yet sorted, working equipment for recording, editing and viewing, and complete issues of *Wings* and *Motor Trends* for a good many years. While it was easy to discard the magazines, clearly I found the film collection irresistible. If nothing else, I had to watch them: they were the closest things I had to a message in a bottle.

Like the cassettes of *AhojAhoj* and the letters in *Love Song for MAD*, my father's collection of films was the first source of materials for *Malý velký svět*. In this example, I define how the work came to life through a process of collecting, an activity like Brown and Dillon's "modes of compositional engagement," some obviously connected, such as *attending, evaluating, exploring,* others more indirectly, such as *embodying* and *directing.* The former come into play once a collection is established while the latter are involved in the generation of such collections. I have divided the collections into categories; my challenge was to figure out how to bring these together within a cohesive work.

Collection 1 - films

Malý velký svět gave me the opportunity and context to open all the possible "bottles" mentioned above. I had no idea in which way the films would be included in the work. I considered choosing films that I would then make music to accompany, or continuing the editing process my father had begun. First, however, I had to watch all of the footage, and I decided to make this a community process. I made my way through the pile of 3.5-minute reels over a series of viewings with close friends. It was like sorting through a box of treasures. The first session was with a scientist who immediately began to make labels with descriptions and a rating system, which I continued to use in subsequent evenings. I finally showed 14 films to the three pianists performing the piece. They further narrowed the selection of films, and we used the ones they chose in the premiere performance.

Collection 2 – solo sessions

I wanted to work with three performers of the same instrument, to see how far I could take the idiom of each. My first instinct was to meet with them alone in their 'natural environment,' and so I traveled to where they were living to meet with each of them between December 2011 and March 2012: Katherine Dowling was in Stony Brook, NY, Rosabel Choi was in Tempe, AZ, and Luciane Cardassi was in Banff, AB. One part of these workshops involved asking some baseline questions (Appendix C.1) and the other part was at the piano. The questionnaire for all three was the same, but the playing sessions were very diverse: Rosabel Choi showed me about virtuosity in Liszt's *Sonata in b minor,* Luciane Cardassi used her voice and mallets in an improvised response to a work she was about to premiere, and Katherine Dowling explored how a processing patch of mine responded to chord voicings. The recordings of these interviews and playing sessions created a collection of "solo" material to use in the work. Much of my role during these sessions was *attending* to what they communicated to me both in sound and words, and later, as I edited, sorted and labelled this material in the spring of 2013 in preparation to write the final work, I was mainly *evaluating* what seemed salient and useful. The performers were very generous with their time and ideas, so these solo sessions provided me with more than an hour of interview with each of them and at least as much recorded sound.

The following media example is an edited excerpt of my interview with Katherine Dowling. These four minutes include the words that most influenced the work and the ideas that I consciously tried to incorporate in its writing.

Media 4. From *Malý velký svět documentation*: Interview with Katherine Dowling http://www.birdonawire.ca/mvs-fate-hyperscore/inspirational-explanation/

Once again, I find it important to retain the original, because it was Katherine's *way* of saying what she said which influenced me just as much as *what* she said. However, if I were to reduce this down even further, I would offer the following keywords/phrases: integrity, soft playing, ugly sound, performer feedback, what cannot be said in words, the value of demonstrating, the luxury of time. For each of the three pianists, the excerpts and key concepts were different, creating sub-categories of the "solo" collection.

More sub-categories were generated through the musical part of our sessions. In Katherine's case, after extreme editing of more than two hours of recorded material, I ended up with one passage which I felt best captured our efforts: it is a series of chords which she improvised after lengthy discussions about voicing and the ring of the instrument – where I was *directing* and she was *embodying* – while listening to the output of a live processing patch I had tuned to fit our goals. This series of chords is transcribed in Box J of *Malý velký svět – FATE*.

Media 5. From *Malý velký svět documentation*: Chord improvisation, Katherine Dowling
http://www.birdonawire.ca/mvs-fate-hyperscore/box-j/

Collection 3 – group sessions

Probably the best example of studio/atelier took place in the fall of 2012, when the pianists and I worked together during a 10-day workshop to generate materials together for *Malý velký svět.* An important part of my workshop practice is not to arrive with too many preconceived ideas, because I find that allows for the performers to express their own creative ideas. We are all much more inclined to be in the *attending, exploring* and *embodying* modes in a workshop when materials are not too "set." The following media example shows our first group meeting, in which I explain how I planned to work on building the performance we were to give a week later:

Media 6. From *Malý velký svět documentation*: first meeting with the pianists
http://www.birdonawire.ca/mvs-sketches-first-meeting/

Looking back on this meeting, I am surprised by how clearly I was able to describe what the point of that workshop period in Banff was about:

> I'm going to make this very practical, because we need to be practical, I think. I thought I would tell you what I envisage at this point to be what we'll do next Thursday [performance] ... with the idea that all of this is just workshop material. If it turns out that some of these bits can later turn into entire pieces for some other instrumentation, so be it, and if not, it will be a great way to collect sound, to establish, what the piece is about, and how it sounds, so that when we tackle the version with just electronics, and integrating the films, that we'll all already know the piece. And I say we because... I have parts of the piece, as well as material, but what I don't have is what you are going to be doing, so what we're doing in these first sessions... [is] establishing the sound of the piece, so we go through, section by section of what I have, and we try things out.

I revelled in the idea that all we were doing in those ten days was collecting material and establishing a sound. It is increasingly common to be in these kinds of open-ended workshops, and I feel it is fundamental to invite the performers to participate in *exploring* and *embodying* the material while I am mostly *attending* and sometimes *directing.*

The material I refer to in the media example above came to a large extent from Bartók, whose music Katherine had suggested to me when I asked for something nice to refresh my piano skills in preparation for our workshop. I selected a number of his *Slovakian Folk Dances,* from *For Children Sz.42* including *Janko drives out his oxen.* I had sung the song with my mother as a child. I imagined an orchestration of some of the wonderful compositional ideas woven into Bartók's arrangement. In the spirit of “anything goes”[12] I welcomed the other residents from that year's Banff Creative Musicians Residency to join our project and expand the sound world to encompass such an orchestration.[13] I *directed* the musicians individually to create layers of sound by *exploring* Bartók’s music in various ways; I then *evaluated* the results to find a way to weave them together. The following media example shows one of these sessions; Mathisha Panagoda is an Australian cellist with extensive experience working with composers and creating new works:

---

[12] I refer here both to the common expression as well as the philosophy of scientific method proposed by Paul Feyerabend, whose book *Against Method: Outline of an Anarchistic Theory of Knowledge* I reread shortly before writing this thesis and who had a lasting influence on my thinking since I first encountered his works in 1998 .

[13] The performers who generously gave their time included Stacie Dunlop (voice), Raissa Fahlman (clarinet), Ricardo Gallo (piano), Samuel Heine (clarinet), Carissa Klopoushak (violin), Andrea Neumann (violin), Mathisha Panagoda (cello), Clark Schaufele (bass), Ronelle Schaufele (viola), Rudolph Sternadel (violin) & Catherine Thompson (voice).

Media 7. From *Malý velký svět* documentation: Recording with Mathisha Panagoda, two excerpts
http://www.birdonawire.ca/mvs -sketches-mathisha-panagoda/

I never realized as a child that *Janko drives out his oxen* is a tragic story, because it was only during the sketching process that I read all the verses: I had only known the happy beginning where Janko is in love, and nothing of his eventual death at the hands of highway robbers! The starkness of these opposing emotional states brought me to thinking about archetypes in folk stories and songs, and how fitting it seemed to use these in a work about childhood and play, since we spend so much time exploring them in early life. I chose three such archetypical situations for *Sketches for Malý velký svět* : *Dancing with Janko* (young love)*, The Highwaymen* (tragic death of the hero), and *Mourning Song* (the grieving community). The following is a performance of the middle movement of *Sketches*, which marked the end of our 10-day workshop and included many of the Banff residents that participated in our project.

Media 8. *From Malý velký svět documentation*: Concert recording of *The Highwaymen*, Rolston Hall, The Banff Centre
http://www.birdonawire.ca/mvs-sketches-the-highwaymen/

This first example of studio-atelier shows, then, how things are collected in the workshop as a space for creation. I explain how material is generated and brought together into categories. The next example gives more information on how I organized and processed this material for the final score and performance, once again from the perspective of my studio-atelier practice. Since it builds on the foundations of *The Highwaymen*, it is in a sense “Part 2” of this first example.

3.3.2 Example of Studio-Atelier 2: *Malý velký Svět–FATE*

As I mentioned above, the surprising and tragic death of Janko in *The Highwaymen* felt like an illustration of the notion of fate/destiny (*osud* in Czech). As I revised the audio and video material from the workshops, I selected excerpts that seemed to fit the themes that had solidified during the Banff residency. The ‘great sorting’ of all the material I had recorded and the sketches I had made, both from the Banff workshop and from earlier solo sessions, took place during a residency in Mexico City, where I found myself alone for a two-month period without access to an electroacoustic studio or even a place where I could effectively make sound. Deprived of the means to work on the sound, I set about organising the material I already had. I approached the task naively and intuitively, since I didn’t have any mentors at the time who worked with such volumes of documentation (it occurred to me only in hindsight that I would have done well to take a course on video documentation or even editing, but I needed to get on with my composition so I learned on the fly, applying my skills from audio editing with mixed results). Among the many things that emerged from this process of *evaluating* was the decision to write *Malý velký Svět* as a series of miniatures that could be played by one soloist rather than a trio. I made this decision to a large extent for practical reasons, since it offered a number of benefits: (a) the work would be much simpler to perform, and likely be heard more often as a result, and (b) the pianists would each receive two bespoke movements. The pianists were enthusiastic about the idea and contributed a third positive: (c) the pianists would enjoy learning the other miniatures written for their now-close friends. After sorting the material, I composed the soundtracks at our cottage on Île Audet, where I had two places to mix with headphones: a table under a mosquito tent in the woods (wherever there was a nice view) and in our tool shed. The cottage was being completely gutted and rebuilt, so there was a constant hum of mechanical saws, generators, motor-boats, not to mention a lot of bugs. Then I composed the piano part and live electronics at a residency in Florida. I had been to the Atlantic Center for the Arts numerous other times, and I knew I would have generous access to a grand piano in a black box theater set in the middle of a natural reserve full of spanish moss, palmettos and the occasional armadillo.[14] It was easy to bring out the folklore elements in these unusual yet rich natural environments.

---

[14] Serendipitously, one group of artists in residence were interested in making dance for film, and they adopted me into their group. One member was Steve Bull, who did the live video for the première of *Sharp Splinter* at the

To give a specific example, let us return to Janko and *The Highwaymen*, which eventually became *Malý velký svět–FATE*, written for Katherine Dowling. In my original interview with her, Katherine mentioned soft playing, breath, jarring sounds, and the importance of memorising. She spoke eloquently of her relationship to scores, enjoying those that felt close to the source, that gave her the feeling that everything she needs is there, “there is an intimacy in that.” In my recording session with her, she improvised carefully voiced chords while listening to my processing of her sound through headphones. She was also there when I first watched the film reel that she subsequently claimed for herself and nicknamed “leaf lunch.”

Media 9. From *Malý velký svět documentation*: *Leaf lunch*, František Hron
http://www.birdonawire.ca/mvs-nourish-hyperscore/inspirational-explanation/leaf-lunch/

My paternal grandfather, František Hron, who “eats” the plate of leaves I serve him with a knife and fork, was in his own way, a victim of highway robbery though unlike Janko, he kept his life and continued being a joyful man. Somehow I felt like it had been a question of fate: one man dies but another survives. Perhaps this is why I decided to use the material we'd created for *The Highwaymen* in one of Katherine’s movements, *FATE.*

Katherine's attitude about scores encouraged me to engage her love for exactitude, and *Malý velký svět–FATE* therefore has more strictly notated parts than the other movements. Within such strictures, Katherine's timbral control of the instrument would be highlighted. This is particularly true in section J, where I combine the transcription of a chord sequence (see 3.3.1 *Sketches for Malý velký svět*) with a part of *The Highwaymen* where Katherine played the opening of Berg's *Sonata Op. 1*, a piece she was performing at that time.

Media 10. *Malý velký svět–FATE*, premiere performance, Katherine Dowling
https://vimeo.com/119645891

Salle Multimédia (the black box theater of the Conservatoire de Montréal). And I met Philip Fortin, who shot video documentation for *Sharp Splinter,* through Hannah Fischer, a dancer-choreographer from that group. Our group seemed to really rally around going to the beach.

FATE and the other movements coalesced into a score in a relatively short space of time–around six weeks in the summer of 2013, a few months before the premiere. I never worked on any one movement for more than two days and often had two movements on the go at one time. If we consider the modes of compositional development, however, the pianists and I had been composing the work since 2011, *attending, evaluating, exploring, directing* and *embodying*.

3.4 Improvisation

An essential feature of how I approach these various (compositional) activities is improvisation. For example, the transcription of Katherine's chords in section J of *Malý velký svět–FATE* celebrates her improvising ingenuity. Improvisation was an essential part of all the pieces described here, even if it is not featured in 'real time' in every movement. Like creativity, improvisation is far too broad a topic for adequate discussion here, yet I offer a few definitions that are useful for these works, especially *Malý velký svět*.

With the incredible blossoming of (critical) improvisation studies and the wealth of scholarship we are now seeing from outside the musical experience about the omnipresent certainty of improvisation of our lives, I find that the following definition, formulated by a 2002 research group co-led by George Lewis, still resonates:

> improvisation can both facilitate and embody cross-cultural and transnational exchanges that produce new conceptions of identity, history and the body; promulgate new notions of meaning and knowledge; and provide models for new forms of social mobilization and community development, providing a means of speaking across boundaries of culture, genre and practice. (Lewis, 2010)

I have not explicitly talked about the social and political implications of the works described here, yet the immigration experience of my family – and by extension that of the performers I worked with, all of whom are first or second generation immigrants – permeates the *Sharp Splinter* cycle. Improvisation, in my understanding and use of it, allows for the inclusion and reckoning with our heritage implicitly.

If one wants to stay in a specifically musical discourse, I find Rzewski's definition offers a more technical explanation of this implicit integration:

> One could say that composition is a process of selectively storing and organizing information accumulated from the past, so that it becomes possible to move ahead without having constantly to reinvent the wheel. Improvisation, on the other hand, is more like garbage removal: constantly clearing way the accumulated perceptions of the past, so that it becomes possible to move ahead at all.
> The most basic technique of composition is that of transferring information from short-term memory to long-term: remembering an idea long enough so that one can write it down. This process of transference is also one of translation: reforming an impulse or feeling so that it can be expressed in some kind of symbolic language. The most basic technique of improvisation is that of short-circuiting this process of conservation: forgetting–momentarily at least–everything that is not relevant to the objective of expressing an idea immediately in sound. This process has more to do with spontaneous reflexes than with language. (Rzewski, 2004, p. 267)

In my practice, recording allows for the extension of the memory of improvisations, and therefore of transference and translation. Working with recorded improvisations - and broadening this notion to include any spontaneous aspect of performance - allowed me to analyze the natural grammar (Lerdahl, 1988, p. 235) of the musicians I worked with. Since improvisation was one of the key places I looked to find traces of the performers' intuitive musical knowledge, I encouraged improvisatory and spontaneous activities, often challenging performers to work at the edge of their comfort zone. Later, when translating and transferring, one of my main challenges was to avoid binding their freedom with a limiting graphic or verbal translation, and I often found myself using traditional notational practice in what I hoped were playful, somewhat subversive ways (e.g. the snippets of Schumann's *Vögel als Prophet* in *Malý velký svět – NOURISH*).

3.5 Provisionality

As I tried to celebrate specificity and playfulness in the sound and score of these works, I reflected on how their subsequent life could invite a similar engagement. This led me to leave a door open to further development, to encourage an engaged performance practice. In *AhojAhoj* there is a challenge to amplify and mix the piano seamlessly during performance (as opposed to creating a score-following gain envelope for the microphone). In *Love Song for MAD*, there are cues to launch and live electronics to add— the same is true in *BitterSweet* and *Malý velký svět.* While all of the works can be rehearsed adequately using fixed media, there is a space for someone at the console/computer to engage with the onstage performers. In every performance of these works, that has been me (just as the performers have, until now, only been the commissioners), but the notation shows how the pieces work, and could be re-created by others.

I intend to share my performance patches with interested performers, should they wish to use or emulate the system in their performances. I leave the technological onus on them, because they will certainly have any number of performance preferences. I have not provided the processing software (in some cases there is an issue of third-party plug-ins), but there are clear enough indications as to what the processing tools are, such that an electronics performer could create a system quite simply to work with their own performance interface.

Another reason why the notation for the live electronics remains largely un-described graphically is that there is still developmental potential in the live electronics, since they have been tested in performance only a few times and are therefore not yet in a definite version. This is especially true of the last movement of *Love Song for MAD* where I am still very much improvising in response to Andréa Tyniec's incredible playing of the improvisatory score, or in *Malý velký svět,* which can be played effectively without real-time processing, and for which my patches still change greatly at every performance.

I like to think of the score as making it possible to create one instance along the trajectory of a work. The work itself is thus in evolution, offering an openness in the spirit of Eco:

> The *possibilities* which the work's openness make available always work within a given *field of relations.* As in the Einsteinian universe, in the "work in movement" we may well deny that there is a single prescribed point of view. But this does not mean complete chaos in its internal relations. Therefore, to sum up, we can say that the *work in movement* is the possibility of numerous different personal interventions, but it is not an amorphous invitation to indiscriminate participation. The invitation offers the performer the chance of an oriented insertion into something which always remains the world intended by the author. In other words, the author offers the interpreter, the performer, the addressee a work *to be completed.* He does not know the exact fashion in which his work will be concluded, but he is aware that once completed the work in question will still be his own. (Eco, 2004, p. 172)

Practically, this sometimes means I do not interfere with the improvisatory nature of certain live effects by specifying them in a timeline score, since that kind of visualisation does not describe their role. There is an inherent invitation to complete the work by figuring out what the effects do and how they can be used. In a number of William Kentridge's recent works, *A Refusal of Time* and *Refuse the Hour*, he explores the notion of provisionality. In a section labelled "DELIGHT IN THE INCOHERENCE" in one of his *Six Drawing Lessons*, he writes:

> The city and the studio meet in the form of collage, of disintegration, in the reconstructability of physical space, of the space of thought, in the making and unmaking of images in the studio. There is not a script or a storyboard. There is a contingency to meaning and what can be gleaned from fragments coming together. A construction rather than a discovery. As with a drawing, a meeting of the world halfway. Only in retrospect does anything have determined inevitability. (Kentridge, 2014, p. 87)

Refusing notation can also be an invitation to engagement and discovery at the instrument: inviting others to complete the work.

3.5.1. Example of Provisionality: *Malý velký svět - THE PANTHER*

To illustrate the notion of provisionality, this section discusses one of the movements I wrote for Luciane Cardassi, the most seasoned improviser of the three pianists I worked with. *Malý velký svět* was by then the fourth work I was writing for her. In *Malý velký svět–THE PANTHER*, I wanted to give pride of place to the mutually-nurturing evolution of the music we had made together. Luciane is incredibly playful and generous in her interpretations of the works she performs and commissions. When we had our solo meeting at the beginning of my writing *Malý velký svět,* she improvised on the mallet and voice techniques she was perfecting for a new work by a friend of hers. While the techniques themselves were surprising and beautiful, I was also taken by her extrapolations on the composer's use of them. Between the solo meeting and the next *Malý velký svět* workshop in Banff, I wrote *Pseudacris Crucifer Crucifer* for Luciane and violist Ronelle Schaufele. In that piece, I edited together samples and simple transformations of Spring Peeper frogs I had recorded, and then translated/orchestrated them for piano and viola. Aspects of the montage are intuitively translated in different ways, in frequency or timbre, in gesture or process. I was very pleased with their interpretation, and I decided to invite Ronelle to participate in the Banff workshop for *Malý velký svět* . Much like the process described in Chapter 3.3.1 about the integration of other performers in the creation of *The Highwaymen, BeautyBeasty* added Ronelle to the trio of pianists. We wove together ideas from *Pseudacris Crucifer Crucifer,* transformations of a childhood song about a cat that Luciane had sung during our solo collecting session and small quotations from Francis Dhomont's *Forêt Profonde*. Ronelle became such an important part of *Malý velký svět* that I envisioned a special appearance for her during the premiere: I would write a first version of *Malý velký svět–THE PANTHER* with viola, and I would only later integrate that into a solo version.[15] This openness implied further workshops and continued collaboration, which I embraced enthusiastically–once I detached myself from preconceived notions about a work's closure and completion.

---

[15] Charles Ives' optional viola and flute parts in the *Concord Sonata* encouraged me in this direction.

As I prepared to make the documentation and score for *Malý velký svět* almost a year after its premiere, I was once again in residency at the Banff Centre, working on the solo version of *THE PANTHER*. My wish was to write this work *together* with Luciane, handing over the compositional reins overtly. I needed to find a way to show this in the work. My choices to fuse the score and its documentation in the hyperscores (discussed in further detail in Chapter 5) was fundamentally influenced by my experience of William Kentridge's idea that: "There is not a script or a storyboard. There is a contingency to meaning and what can be gleaned from fragments coming together." I felt that contingency and provisionality were at the heart of my work and how I wanted to discuss it. I feel bound by linear, finite narratives, as they impose a more singular meaning to me, whereas a collection of fragments suggests a binding quality amidst a multiplicity of interpretations. This felt particularly important in a work about childhood and play, and certainly in my collaboration with Luciane Cardassi.

In the spirit of a collection held together by a contingency called *THE PANTHER*, what follows are four of the fragments I will use for the solo version *yet to be written*. Some of them are already integrated in the existing version and score for viola and piano. These fragments exist in various media, which also marks a new development in my work, still very basic yet evolving, which is the inclusion of explanatory texts, sounds and video in this fused score + documentation. They are presented here in chronological order:

Fragment 1. Luciane's Cat Song

Luciane Cardassi's childhood song about a cat in Brazilian, a language I do not speak, got me thinking about the sound of a feline state of mind. I recorded her singing it in the spring of 2012, during one of our first solo workshops.

Media 11. From the *Malý velký svět* documentation: *Luciane's Cat Song*
http://www.birdonawire.ca/mvs-panther-hyperscore/inspirational-explanation/catsong/

Fragment 2. *BeautyBeasty*

Ronelle Schaufele, Luciane Cardassi, Rosabel Choi, Katherine Dowling and I created *BeautyBeasty* during a 10-day workshop at the Banff Centre in the fall of 2012. We were working with Bartók's *For Children*, *Sz42 Vol. 2*, especially the songs "Deep in the Forest" and "The Orphan." These tropes evoke folk tales, hence the title *BeautyBeasty.* At 3:08 in the following recording made at the end of the workshop, there is a sample of Francis Dhomont's *Forêt Profonde,* a work that explores similar themes and whose sound I borrow.[16]

Media 12. From the *Malý velký svět documentation: Sketches for Malý velký svět: BeautyBeasty,* premiere performance.

http://www.birdonawire.ca/mvs-sketches-beautybeasty/

Fragment 3. *Malý velký svět - THE PANTHER* with viola

In the following video documentation of *Malý velký svět –The Panther*, Luciane is wearing a hat made for the premiere performance on October 11, 2013 by Banff upcycling artist Marie-Eve Laflamme. It is made from a pair of lederhosen that belonged to a folk costume my father regularly wore as a boy.

Media 13. From the *Malý velký svět documentation: Malý velký svět–THE PANTHER,* premiere performance of viola version

https://vimeo.com/119655810

Fragment 4. Key ideas for solo version

In the following two-part video, Luciane and I first talk about the solo version of *THE PANTHER* yet to be written, and then Luciane shows the material she prepared based on that conversation. She offers a series of ideas based on *THE PANTHER* with viola player Ronelle Schaufele (which is in turn based on *BeautyBeasty*). This extended clip of one of our workshops took place in the fall of 2014, a year after the premiere of *Malý velký svět* at the

---

[16] *Forêt Profonde*'s influence can also be felt in *MvS–Nourish*, which, like Dhomont's work, uses music by Robert Schumann. Despite *MvS*'s relationship to childhood, I did not choose the *Kinderszenen*, like Dhomont, but stayed in the forest with a miniature from *Waldszenen.*

Salle Multimédia. It clearly shows the many compositional ideas Luciane offers, which she goes on to develop and organise.

Media 14. From the *Malý velký svět* documentation: *THE PANTHER* workshop 4 http://www.birdonawire.ca/mvs-panther-hyperscore/inspirational-explanation/workshop4/

In a later part of the same conversation, we talk about ways to orchestrate melodies that Ronelle was playing, and I mention that if she suggests an interpretation, I can transcribe it into the score, naming her as co-composer. In the second part of this video, Luciane shows one of the orchestrations she came up with in response.

To conclude this example of provisionality, I would suggest that the fragments above demonstrate that collecting a set of contingent elements is well suited to collaborative practice. My collaboration with Luciane has nurtured this collection, because she has always been so supportive of my efforts in this direction, as it allows us to revisit cherished moments and memories while developing further. Her encouragement of my notation and documentation practice helped me continue improving ways to inscribe the performer's involvement in my work. These improvements have, as a result, become more smoothly integrated into my everyday practice. The inclusion of such fragments in the score of a work are not meant to restrict the score, but to invite future performers to likewise complete it with their interpretation of the contingency between the fragments.

Having to reduce a large amount of documentary material to usable fragments has encouraged me to recycle these compositionally rather than, as I had initially thought, use them to draw some kind of empirical data. From experience, I've learned that I neither have the attention in the moment to dedicate to "best documentary/data collection techniques," nor the time to dedicate to mining that documentation for a purely scientific purpose. Over the course of these doctoral works – and my collaboration with Luciane – I have come to terms with preserving these moments of connection for my own purpose and use, simply because I believe they are at the heart of my work, and I cherish them.

To conclude this chapter, which explores some of the considerations I find most important in how I make electroacoustic music with specific musicians, I offer that the red thread holding them together is a commitment to creating a work in dialogue with others. Idiom, translation, the studio-atelier, improvisation and provisionality all circle around communicating with and through others, relying on them to augment and complete a work. Without discussing it overtly, collaboration has been hiding in the wings, and the following chapter provides a more specific definition of my understanding and harnessing of it. Just as the issues discussed here hold true for the examples that follow, the reverse is true as well.

4. COLLABORATION

If there has been no clear verbal definition of creative collaboration until now in this thesis, it is because it has been an unstated feature of all the preceding examples. In fact, what joins me to all those I create with, regardless of categories such as performer, composer, improviser, is that we are collaborators. Beyond music, my greater medium is collaboration, in the sense Sloboda gives it:

> "I suspect that an important component of compositional skill is a degree of "trust" in one's medium – a certainty that the habitual process of generation will yield material which is richer than one first sees, and which, even if initially unsatisfactory, usually contains within it discoverable properties which can be used to profit. This trust is partly engendered by the sheer fact of previously solved problems; but it also has something to do with increasing awareness of the richness of a medium such as the tonal system." (Sloboda, 1985, p. 38)

Sloboda's emphasis on trust rings true for me, and while he gives the tonal system as an example, I use collaboration as mine. If I define a medium as a set of storage and/or transmission tools, this means that both the performers and the electronics are sources and keepers of the work. The network of stored information makes documentation tricky, but this apparent opacity is countered by the problem-solving nature of teamwork. Collaboration affords fluid motion between the 'five modes of compositional engagement' (Brown & Dillon, 2013): as composer I am most often *attending, analyzing* and *directing*, while the performer is *exploring* and *embodying.* In each other's presence, we can experience different perspectives at once.

In this relatively short chapter, I augment the tacit examples of collaboration we have seen in the previous chapters with an effort towards a definition of collaboration in my work. I then discuss the theories of collaboration, particularly peer-to-peer learning through play, that I find most useful in approaching the challenges I face both as a musician and as a self-reflexive researcher. I offer an example of peer-to-peer learning and play drawn from *Malý velký svět* at the end of the chapter.

4.1 Open loop type-2 behaviour

In a recent conversation with Bob Gilmore,[17] he pointed to examples of relationships that were not, in his opinion, collaborations: Brahms' relationship with Joachim, and Paganini's initial refusal to play Berlioz's viola part *Harold in Italy* because it was not properly virtuosic. He connected a growing interest in collaborative practice with a greater acknowledgement of the performer's input and role:

Media 15. Conversation with Bob Gilmore, November 1, 2014
http://www.birdonawire.ca/thesis-documentation-bob-gilmore-2/

Beyond the consultant model (Hayden & Windsor, 2007) that Gilmore describes, the performer-composer relationship gets into murkier territory: is it a question of material, ideas or time? Bob Gilmore offered the following summation:

> To me collaboration would mean that two people, or more than two people, are in on the thing from kind of the beginning, more or less, that you make something jointly or collectively, if it's more than two people.

In on it from the beginning describes these doctoral works well, not only in terms of the performance, but also the process leading up to it and my guidelines for its score. There was a mutual agreement to be agents in the poïesis and recipients of the aesthetic of the performance and the score.

Among other things, this required a commitment to self-reflection and a questioning of status quo, despite and within the limits of subjectivity. In their article "Collaboration and the Composer: Case Studies from the End of the 20th Century," Hayden and Windsor connect collaborative practices between performers and composers to Argyris and Schön's *Double Loop Learning*:

---

[17] I feel very grateful to have recorded my last conversation with Bob a couple of months before his death, since his thoughts on collaboration are grounded in such a wealth of experience working with and researching composers. He always championed the performer's creative role, and encouraging me to maintain a strong performative perspective.

> If one claims, for example, that one wishes to take on board aesthetic ideas from a performer, in addition to technical feedback, and yet acts in a way that is resistant to such a widening of scope, then collaboration is unlikely to be easy, since the performer will be frustrated by what he or she perceives to be a contradictory working context. Similarly, the performer may say that he or she is happy with having only technical input, but may act in a way that reflects a dissatisfaction with such a limited technical role.
> If Argyris and Schön stopped here their ideas would not be particularly helpful beyond this descriptive level: however, they go on to argue that such interactions can fall into two types at the level of the individual: *type I* interactions are characterized by individuals having a fixed and defensive view of what their role is, whereas individuals engaging in *type II* behaviour are able to question such ideas about their own role. Type I is often characterized as 'closed-loop' and type II 'open-loop' behaviour. Type I interactions follow the assumptions of both parties: for example, performer and composer tacitly agree that the role of composer is creative and the role of performer is technical. Any problems that arise here can only be solved within this limited scope. A type II interaction allows either party to question such assumptions about the constraints. (Hayden & Windsor, 2007, pp. 29-30)

As an inherent *mise en abîme* of a collaborative/playful work on collaboration/play, *Malý velký svět* in particular typifies an open loop, type II approach. Poïesis in/through relationship sidesteps assumptions and constraints about specific roles, focusing instead on specific people. I saw *Malý velký svět* as a bespoke work for specific performers, whose qualities and aesthetic were integrated and essential, yet I kept in mind the possibility that if others wanted to try it on, they too could be fitted.

4.2 The Zone of Proximal Development

Collaboration develops tools for an increased suppleness towards changes in environment, similar to Eno's use of biological paradigms, especially *identity* and *mutation*:

> successful evolution [requires] the transmission of *identity* as well as the transmission of *mutation*. Or conversely, in a transmission of evolutionary information, what is important is not only that you get it right but also that you get it slightly wrong, and that the deviations or mutations that are useful can be encourage and reinforced. My contention is that a primary focus of experimental music has been toward its own organization, and toward its own capacity to produce and control variety, and to assimilate "natural variety" – the "interference value" of the environment. (Eno, 2004, p. 227)

In collaboration, inviting other(s) into the environment creates interference, all those extra deviations and mutations, at the same time offering a shared responsibility. Creativity psychologist Howard Gruber suggests that "What a collaboration does for you is, by spreading the risk a little bit, it encourages you to take more chances." (John-Steiner, 2000, p. 19) Developmental psychologist Howard Gardner develops this further,

> My claim, then, is that the time of creative breakthroughs is highly charged, both affectively and cognitively. Support is needed at this time, more so than at any other time in life since early infancy. The kind of communication that takes place is unique and uniquely important, bearing closer resemblance to the introduction of a new language early in life, than to the routine conversations between individuals who already share the same language. The often inarticulate and still struggling conversation also represents a way for the creator to test that he or she is still sane, still understandable by a sympathetic member of the species. (Gardner quoted in (John-Steiner, 2000, p. 123))

In the book where she brings these ideas together, Vera John-Steiner suggests that being both agent and recipient is a way of expanding one's own practice, following in the work of Russian developmental psychologist, Lev Vygotsky. Vera John-Steiner summarizes,

> Emotional scaffolding creates a safety zone in which support and criticism are practiced. It also contributes to human plasticity, an opportunity for growth through mutual appropriation of complementary skills, attitudes, working methods and beliefs. (p. 8)

This is the Zone of Proximal Development, described by Vygotsky as:

> the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers (Vygotsky, 1978, p. 86)

The collaborative community has extended Vygotsky's idea to creative and learning situations throughout life, pointing out that past childhood, there are few situations other than "playful and improvisational performances" that circumvent our awareness of self (Holzman, 2009, p. 85). Holzman defines collaboration as a process of becoming through others, something that can be refined rather than thwarted by awareness. It is in this way that I approached the collaborations; they were études on ZPD, collaborative pieces about collaboration.

4.2 Play

In his lengthy discussion of the role of play in learning and the creation of meaning in our development, L.S. Vygotsky observed that as we age, “the old adage that children’s play is imagination in action can be reversed: we can say that imagination in adolescents and schoolchildren is play without action.” (Vygotsky, 1978, p. 93) I would suggest that in the journey of a work from the imagination of the composer to its incarnation in sounding action, play could act as a catalyst, returning to the stage of imagination in action. When I read Clark Abt’s classic definition of game as “an activity among two or more independent decision-makers seeking to achieve their objectives in some limiting context," (Abt, 1987, p. 6) it strikes me that a score or "the work" could be just such a limiting context. The collaborative creation of a work, in many of my experiences, charts the progression in which free form play turns into a specific game.

That is in line with Roger Caillois' continuum from *paidia*, unstructured and spontaneous activities (playfulness) to *ludus,* structured activities with explicit rules (games). He also remarks on our tendency to turn *paidia* into *ludus*, even as established rules are always challenged and tested by more impulsive tendencies (Caillois & Barash, 2001, p. 13). Caillois describes play using 6 major characteristics: it is not obligatory; it occupies its own time and space; its results are uncertain; it does not create material gain, ending as it began; it is governed by rules that suspend ordinary laws and behaviours; and it involves make-believe, "accompanied by a special awareness of a second reality or of a free unreality" (p. 10).

Caillois goes on to describe four main forms of play:

- Agon, or competition.
- Alea, or chance.
- Mimicry, or role-play.
- Ilinx (whirlpool), altered perception.

In my experience during the most satisfying collaborations, there emerges from the *paidia* of brainstorming, sketching, trying out patches, writing bits of score, recording samples, improvising in the studio, practicing a more definite score, revising after testing, etc., a work with explicit rules, the *ludus* of the imagined made manifest.

Many of the ideas about games and collaboration above come from a presentation I gave at the Toronto Electroacoustic Symposium 2012 (Appendix B.1) around the same time that I began *Sketches for Malý velký svět* . The two come together in a specific kind of game,

> *worldplay*... the repeated evocation of a fully realized imaginary place often (but not always) inhabited by imagined beings engaged in imagined behaviors or characterized by imagined systems within some imaginary culture. What distinguishes this extraordinary play from ordinary make-believe is a matter of degree. Unlike improvised, will o' the wisp worlds that disappear at the end of the day, full-blown imaginary worlds are *persistent*, often lasting months or years; *consistent*, governed by the child's sense of the plausible as well as the fantastic; *elaborative*, involving narrative growth and system building; and finally, *personally significant,* often mattering throughout life as a seminal early experience. In addition, worldplay in many cases involves the material expression and documentation of what has been imagined. Children

> who invent worlds often (but not always) generate maps, drawings, stories, histories, and other material artifacts. (Root-Bernstein, 2013, p. 417)

In our workshops, the imagined beings we engaged with were our past and future selves, and their imagined behaviours our past and future performances. It was in this spirit that I approached the score, as a "material expression and documentation of what has been imagined." It was a way of scoring as a locus for "imagination in action." The title, *Malý velký svět*, means "Small big World," in reference to our re-creating and invoking the vast imaginary worlds we inhabit as children.

4.2.1 Example of Play: *Malý velký svět –NIGHT TIME*

The *elaborative* aspect of worldplay is particularly well illuminated by *Malý velký svět – NIGHT TIME,* the miniature with the longest history of narrative growth. In 2008 I first met pianist Rosabel Choi and I arranged the 15th-century chanson *O Rosa Bella* for her, bassist Jake Leckie and saxophonist Adam Kinner. The idea sprang from conversations with Rosabel about improvisation and creating a framework where she could feel comfortable doing it in performance. We were both very enthusiastic about the experience, especially the feeling of creating and inhabiting the musical world of this ancient song. Jake Leckie and Adam Kinner were both seasoned improvisers, so they acted as guides to navigate the map of the score. They also brought their more listening-based practice to the table.

In *Malý velký svět–NIGHT TIME*, I wanted to bring back that atmosphere of play and openness. In my initial interview with Rosabel, I was struck by something she said about how a score is in the middle of her process:

Media 16. From *Malý velký svět–NIGHT TIME* hyperscore: Awkward nightbird & heavy melancholies

http://www.birdonawire.ca/mvs-nighttime-hyperscore/box-d/

"Fitting into the groove" in box D of *NIGHT TIME* are two separate melodies: "awkward nightbird" in the right hand, which repeats as it descends the keyboard and "heavy melancholies" in the left hand, which stays in the same mid-range octave. We never hear the whole melody; different notes of it are omitted at every repetition. The player is invited to make their own version of this process, if they feel comfortable enough they can do so improvisationally. Otherwise they can use the notated version. This responds to Rosabel's notion of the score as something in the middle, which invites completion by the performer. Another unique feature of *Malý velký svět –NIGHT TIME* is that the player must conform to the rhythm and timing on the soundtrack. What seems like a constraint really comes from Rosabel's enthusiasm for the particular timing of jazz-based musicians:

Media 17. From *Malý velký svět–NIGHT TIME* hyperscore: Rosabella Groove
http://www.birdonawire.ca/mvs-nighttime-hyperscore/inspirational-explanation/

"Awkward nightbird" and "heavy melancholies" should fit into the groove that the trio of Rosabel Choi, Jake Leckie and Adam Kinner played in *O Rosabella.* I wanted Rosabel to feel the same comfort and invitation to listen and improvise, bringing back a world which we had explored and enjoyed together.

Collaboration as my trusted medium for creation and learning is explored throughout this chapter. While I feel quite at ease feeling and defining collaboration as an activity, the question of how to leave its traces in a document of transmission, the score, poses a continuing challenge. The paradox of wanting to leave things open and setting them down is well described by McLuhan, where he points to the crucial change brought to us by the printing press, allowing for us to "inspire–and conspire":

> Printing, a ditto device confirmed and extended the new visual stress. It provided the first uniformly repeatable "commodity," the first assembly line—mass production. It created the portable book, which men could read in privacy and in isolation from others. Man could now inspire—and conspire (McLuhan & Fiore, 1967, p. 50).

Yet he immediately follows this up with what troubles me with published scores, an individualism that seems at odds with the collective nature of these works:

> Like easel painting, the printed book added much to the new cult of individualism. The private, fixed point of view became possible and literacy confirmed the power of detachment, non-involvement (ibid).

The following chapter describes my attempts to reconcile this paradox with multiple formats for my scores, encouraging involvement and providing inspiration.

5. SCORES & TRANSMISSION

In composing music for specific performers, grappling with issues of language, translation, transcription, learning and play, I knew that the biggest challenge would not be to create the works, but to find adequate ways to score them. These collaborations relied heavily on memory and oral instruction, existing in sound for a long time before coalescing into notation. We spent an extended amount of time playing (with) the works before they were scored.

It became increasingly clear to me that a score could benefit from a number of formats (Appendix B.3), which I describe in more detail in this chapter. The videoscore allows for effective rehearsal, while the hyperscore gives the performers a clear presence in the prescriptive and descriptive document of the score. This personal solution sprang from and was tested in playful collaborative situations; it implicitly addresses the question of specificity and idiom while taking advantage of my documentation of our workshop and studio practice.

This chapter discusses my approach to scores, the different elements I try to include, and the obstacles I face. First is 5.1 Sort and display, where define my approach by way of an analogy. In 5.2 Inscribing meaning & effective transcription, I discuss the appeal and perils of transmitting oral communication. 5.3 Privileging performance practice and eschewing authorship focuses on what I try to convey and who is speaking. 5.4 Immersion in a sonic landscape offers a perspective on the importance of multimedia in my scores. This chapter is concluded with 5.6, an example that is both theoretical and practical, an explanation of how these scoring issues play out in the hyperscore of *Malý velký svě ,* using the example of *KNOCKING,* a movement written for Luciane Cardassi. This example uses playful analogies as a mimesis of the themes of play and childhood in the work it describes.

5.1 Sort and display

The first memory I have of playing have involves piecing things together and collecting. I am squatting next to an umbrella pine (the kind, I learned recently, that inspired Respighi's *Pini di Roma*), trying to fit pieces of its bark, fallen from the sock of its trunk, back onto the tree. The trees grew at the top of a hill in southern France where we lived that year. It was the same year that I started collecting shells.

Media 18. From *Malý velký svět* hyperscore: Shell Sorting
http://www.birdonawire.ca/Malý velký svět -hyperscore/shell-sorting/

I am still gathering shells, bits of trees, things that have temporarily been shed to eventually hold new life. Collecting is largely about sorting and display. Each episode reveals something different about the collection, a kind of story telling. (It is not a stable mnemonic device, however, since I rarely remember the rules of the previous episode.) Sorting is a game that relies on intuition and trusting what you have on hand. Neither my sister nor my parents could see the potential in those pieces of bark, yet they encouraged me to continue. Like the bark of an umbrella pine, fragments from the hyperscore belong to the tree of the work, made up of our adjoining and overlapping voices and sounds.

5.2 Inscribing meaning & effective transcription

I intended the score of *Malý velký svět* to include clear, elegant instructions for rehearsal and performance, while bearing witness to its creators. In 2012, I consulted with five composers and five performers who created electroacoustic works together, asking them a series of questions about the relationship of score to meaning, the notation of their work and the relationship of collaboration to score. What came to light was that combined knowledge and shared experience often led to greater meaning and more efficient scores (Appendix B.2)

While the present discussion will not deal with the issue of meaning in depth here, I offer the following comment by Luciane Cardassi as illustration of the kinds of answers and information I was seeking to provide.

Media 19. From *Malý velký svět documentation*: Luciane Cardassi Interview
http://www.birdonawire.ca/thesis-documentation-inscribing-meaning/

To weave the ideas and sound of the performers into this work and its documentation, I often found myself transcribing their words or sounds into linguistic and graphical formats. It occurred to me that despite my doing this in an effort to bear witness, there was, like in the discussion of translation in chapter 3.2, so much that was lost or changed through this "processing."

A good example is the following excerpt of conversation with Bob Gilmore and Elisabeth Smalt on November 1, 2014 at Hazenstraat 16, Amsterdam:

Media 20. Conversation with Bob Gilmore, November 1, 2014
http://www.birdonawire.ca/thesis-documentation-bob-gilmore-1/

When you hear the original, the transcription in Appendix C.2 makes so much more sense than just reading the text, as does your awareness of my editorial choices. Transcription necessarily leaves things out or alters them; it implies a particular focus. I could have edited the conversation thus:

> The nineteenth-century model of sending the score to someone and then having a deep heart to heart about what is about to happen... just acknowledges that there is a composer and that there is a performer and at some point there was a cross-over in which some important information was exchanged. That's not the kind of collaboration we're talking about.

It is certainly more to the point but there is less Bob and Elisabeth, making it less specific to the experience itself. In this case, I was paraphrasing what Bob was saying just before I turned on my recording device, knowing that it was important to capture this moment, his thoughts on my subject of research, while I had the opportunity. All the seemingly unimportant confirmative sounds Bob makes on the tape are what make me interested in it: upon his passing, his encouragement of my efforts to verbalise things is even more touching and personal. In some ways, it is very idiomatic of Bob's personality, to invite musicians–particularly those working as performers–to talk and write about their practice.

Much of what I do involves recording and transcription, not for reproduction, but to trigger memory and inspire innovation. In recording and transcribing spontaneous play, I am editing and transforming it—not to hide its origins, but to create a new script to be sonified. It is an *opening* of the material, its selective abstraction, influenced by my experience of playing such scripts as a performer and of generating them for computers. Transcription is sensitive work. Collecting and using someone's voice, particularly in candid, intimate moments requires respect and gratitude. Since these are precious, it is also helpful to expect doubt and hesitation.

5.3 Privileging performance practice & eschewing authorship

My fascination with and questioning of translation, transcription and accumulated knowledge comes originally from my experience performing early music, where so much is unwritten. Often composers performed their works, only notating what was necessary to trigger memory. The nineteenth-century “work-concept” divided composition and performance, and performer information was evacuated since there was no tradition of codifying it in written form, apart from editions of works (often made several generations later and understandably viewed with suspicion). Certainly there are countless examples of revisions by composers that take performer experience into account, but I wonder what might happen if performers took more active roles in notation. A recent article addressing “ethical and theoretical challenges to joint work based on the division of labour in the creation of notated works” (Domenici & Taylor, 2014, p. 1) points out that:

> By focusing on the impact of the participants’ actions/decisions on the *written* music, while dismissing the role of musical performance in shaping the identity of a piece of music and creating a context for future readings and interpretations of the score, it confirms notation’s privileged status. (p. 9)

It is as a performer-composer that I faced these ethical and theoretical challenges in *Malý velký svět*, hoping that its score could contain the knowledge of its performers in a way they were enthusiastic to share.

Hayden and Windsor's observations in their article “Collaboration and the Composer: Case studies from the End of the 20th Century” offer three categories of performer-composer relationships:

> directive: here the notation has the traditional function as instructions for the musicians provided by the composer. The traditional hierarchy of composer and performer(s) is maintained and the composer aims to completely determine the performance through the score. The instrumentation for the pieces in this category tends to be acoustic in nature and made up of conducted ensembles or chamber groups. The collaboration in such situations is limited to pragmatic issues in realisation, as outlined at the end of the introduction.
> interactive: here the composer is involved more directly in negotiation with musicians and/or technicians. The process is more interactive, discursive and reflective, with more input from collaborators than in the directive category, but ultimately, the composer is still the author. Some aspects of the performance are more ‘open’ and not determined by a score. The works in this category tend to combine notation, acoustic instruments and electronic media.
> collaborative: here the development of the music is achieved by a group through a collective decision-making process. There is no singular author or hierarchy of roles. The resulting pieces either (1) have no traditional notation at all, or (2) use notation which does not define the formal

> macro-structure. In (2), decisions regarding large-scale structure are not determined by a single composer. Rather, they are controlled, for example, through live improvised group decisions, or automated computer algorithms. The pieces which fit this category use electronic and digital media in combination with live or recorded acoustic instruments. (Hayden & Windsor, 2007, pp. 32-33)

Seeing *Malý velký svět* in between the omniscience and obsolescence of traditional notation helped me commit to the openness of *interactive* collaboration, in which I would use notation from the *directive* mode to the degree that it made my collaborators more at ease, but we would work in a *collaborative* way as much as possible. I am less the author of these works than the keeper of the score. I triggered and collected many ideas, sorted them and chose to include some and not others, acting as “interpreter and filter.” (Domenici and Taylor, 2014 p. 4)

5.5 Immersion in a Sonic Landscape

I wanted to offer this collecting and sorting of material to my performers in sound rather than only in words and notation, to create something concrete to react to and inhabit. I also strived to create space in workshops and in the score for emotional and intellectual reactions through sound, without verbal descriptors. Many somatically-oriented practices, including Deep Listening and the Feldenkrais Method influenced my approach, since both put emphasis on non-verbal experience. Working with "Frankenstein" versions as early as possible in workshops and in the studio meant that the sonic landscape grew and developed between us right from the beginning. Thus, despite the fact that the most specific version of notation in the score came late in the process, the work's sound and atmosphere was collectively known and generated from early on.

The following example describes how I provide performers with such a sonic landscape with the use of videoscores and hyperscores.

5.6 Example of Score & Transmission: A PICKLE IN A BELL JAR

In this playful discussion of my discoveries about scores and transmission, I touch on many of the issues in this chapter and the preceding ones. There is an intentional and increasing blurring between theoretical and artistic elements, much like towards the end of a research-creation project. While the analogies here might seem somewhat far-fetched, they illustrate a mimesis between this document and my way of verbalising and communicating ideas with my collaborators.

5.6.1 Preserving Collaboration

Family recipes often involve a lot of heresay. The electroacoustic performance *Malý velký Svět* resulted from a collaboration between three pianists: Luciane Cardassi, Rosabel Choi and Katherine Dowling and myself. I wanted to leave behind a recipe, some ingredients, and a sample of what we made. The hyperscore of *Malý velký Svět*, a videoscore for rehearsal/performance and recordings of performances (audio and video), offer a set of material in which I tried to highlight collaborative aspects and potential, to document the heresay. This presentation is an account of personal solutions I found to satisfy my interest in process rather than result, my collecting and sorting of moments of shared creation. I use playful analogies, associations and references, in keeping with the themes of *Malý velký Svět*: games and childhood.

My collaboration with Luciane Cardassi, Rosabel Choi and Katherine Dowling gave me the idea of creating multiple formats within a score. I chose performers who were enthusiastic about a time-consuming and intimate collaboration. My goal was to create something with them and for them, something we could carve our presence on. To write Luciane, Rosi and Katherine into the score, I found an open, recursive, open system of recipe, lore and sample.

5.6.2 Videoscore: Sonic landscape

I enjoy simple, bare-bones instructions, preferably on a single page. As an electroacoustic performer, I am also convinced that listening to the sonic landscape of the work is inextricable from following its instructions. The videoscore for *Malý velký Svět* offers performers a rehearsal and performance tool that at once allows simultaneous instruction reading and soundworld listening. The following is the video score for *Malý velký svět – KNOCKING*, written for Luciane Cardassi:

Media 21. Videoscore for *Malý velký svět–KNOCKING*
http://www.birdonawire.ca/mvs-knocking-hyperscore/videoscore/

5.6.3 Hyperscore: Resist entropy

Every mark on the page should be rife with specificity*,* resisting the entropy of its message. I borrow this idea from William Kentridge's *ANTI-ENTROPY* section of his *Drawing Lessons.*

> Entropy, as we are all familiar, talks about the degree of disorder or randomness within a system. Entropy is a measure of the unavailability, in a system, of the thermal energy of that system to be converted into work. It can be most easily described as a tendency for order to dissolve into disorder. It refers to the breakdown of something that leaves its site of generation as a coherent thought, a coherent object, a coherent image—and gradually disintegrates, becomes fragmentary; so that when it reaches its site of reception, what arrives are shards and fragments. (Kentridge, 2014, p. 169)

Sometimes this fragmentation of coherent ideas accelerates once the score is with the performers (unless they are 'in on it from the beginning'). I tried to outsmart entropy by creating an *aide-mémoire* to refer back to when entropy might set in and which could be extended when something important arose.

Collecting the fragments of moments of coherence and inspiration eventually created a kind of *lore*: a curated series of important things about the piece. The Proto-Indo-European root of *lore* is 'track' or 'furrow': of funnelling and leaving a trail. The lore includes both more general observations and curiosities worth mentioning, similar to Barthes' concept of *studium* and *punctum* in photographs:

> *studium*, which does not mean, at least not immediately, "study", but application to a thing, taste for someone, a kind of general, enthusiastic commitment, of course, but without special acuity.... The second element will break (or punctuate) the *studium*. This time is it not I who seek it out (as I invest the field of the *studium* with my sovereign consciousness), it is this element which rises from the scene, shoots out of it like an arrow, and pierces me. A Latin word exists to designate this wound, this prick, this mark made by a pointed instrument: the word suits me all the better in that is also refers to the notion of punctuation, and because the

> photographs I am speaking of are in effect punctuated, sometimes even speckled with these sensitive points; precisely these marks are so many points.*"* (Barthes, 1981, pp. 26-27)

The hyperscore is thus an eclectic *aide-mémoire* of information, consciously incomplete that invites you to click on highlighted areas, without obligation or hierarchy. The hyperscore for *Malý velký svět–KNOCKING* can be accessed at the following address:

Media 22. *Malý velký svět –KNOCKING* hyperscore
http://www.birdonawire.ca/mvs-knocking-hyperscore/

In that hyperscore*,* there is a link to an inspirational explanation of the notation by the original performer, Luciane Cardassi:

Media 23. From the *Malý velký svět–KNOCKING* hyperscore: Inspirational Explanation
http://birdonawire.ca/mvs-knocking-hyperscore/inspirational-explanation/

Even here, her more general explanation is pierced by the improvisation she offers in the second half. The hyperscore is similarly punctuated a number of other links: click on B for Luciane's performance of *Time and Desire* by Linda Catlin Smith, and click in box D for the following text about the conversation that starts at 2:40 in the soundtrack.

> The excerpt heard at 2:40 in KNOCKING comes from the first workshop in March 2012 where Luciane proposed material for the work. We were in her studio in Banff, and she was preparing a new commission in which she used all kinds of mallet and voice techniques. Instead of playing the new work for me, she improvised, extrapolating from it. I was very moved by how creative she was and how musically she had integrated these new elements into her own way of playing. The excerpt in the soundfile leaves a trace of where the idea for KNOCKING began.

Each hyperlink is also an *hors d'oeuvre* to whet the performer's palate for learning the work, and at the same time, these tidbits acknowledge how integral the three pianists were to so much of the work.

5.6.4 Analogy: A pickle in a bell jar

My mother's tradition stipulates I make potato salad on important feast days. Potato salad is a processed food. The degree of processing may be mild, if commercially-available mayonnaise is used, and even milder if one decides to make one's own pickle. The pickle is essential to my mother's recipe. She used *Polské Ogorki*, available at the local delicatessen. When I was seven years old, visiting our relatives in Staňkov for the first time, I tasted the pickles my mother remembered from back home in Czechoslovakia: my grandmother had made them with my aunt earlier that year. They may well have grown the cucumbers. In any case, the brine was such a delicate balance of sweet, sour and refreshing. The best potato salad hardly needs any emollient other than several spoonfuls of good pickle brine.

Potato salad is a food about texture. There are vegetables to cook to just the right amount and cut up in just the right size, and combine with a lot of stirring. Knowing you have just the right pickle helps, because there's your flavour started off right.

Why so much fuss about a pickle? Since I find analogies often useful, I offer that a score should include a good pickle: as you're making the salad, you sip the brine and enjoy the crunch as inspiration. If you've made the pickle, it's that much better.

Not everyone is a pickle aficionado; therefore, this is not the analogy for them. But the story is really about wanting to know my grandmother's recipe and the stories around it. An ideal score for potato salad should (a) offer a taste of the pickle, (b) share the recipe, and (c) offer some hints and reviews. If this analogy only to appeals to foodies, a different approach:

> Musique concrète was a kind of abstractisation [sic] of sound – we didn't want to know its origin, its causality. Whereas here I wanted you to recognize causality... it wasn't just to make music with but to say: this is traffic noise! [Laughs.] Cage's influence, perhaps. (Ferrari, 1998)

In creating fixed sounds based on the performers' sound also recognizes the causality in this music: this is Luciane! This is Rosi! This is Katherine! These layers in the fixed sounds are part of the performance score, the recipe.

Wikipedia tells us: "By pumping the air out of the bell jar, a vacuum is formed.... Purely decorative bell jars were common in the Victorian period for the display of clocks and taxidermy, as well as transparent dust covers." (Wikipedia, 2014)

The audio recording of *Malý velký svět* and the video of its premiere are like pickles in a bell jar, intended as samples. They were made in the workshop leading up to the premiere, since we all wanted to leave a good taste for future potato salad.

Many caution about the normative effect of including such recordings in a score, possibly limiting a performer's creativity. I do not worry about this, since everyone will respond to the sample differently. The works also require a fair bit of improvisation, which encourages re-creation. Each re-creation and iteration starts from what's in the bell jar, its consumption being part of the process towards a “moment of performance,” in the sense that Georgina Born puts it:

> On the one hand, there is the moment of performance (P1) as a dialogical, participatory creative act grounded in an aesthetics of collaborative improvisation, one that entails a particular experience of musical intersubjectivity and place, in which the interaction is at once musical and social. On the other hand, there is the capture of that moment in commodity for my recording (R1), an objectification that is productive in enabling improvised performance to be disseminated and known beyond its original time and location -- in which form it becomes the aural means of educating and socializing other musicians and later generations, who are thereby empowered to create something new or to cover, re-work or transform the original (P1) in subsequent improvised performances (P2). The history of jazz is a history of this cumulative movement between focal musical events – $P^1 \rightarrow R^1 \rightarrow P^2 \rightarrow R^2 \rightarrow P^3 \rightarrow$... – in which successive re-creations are afforded and communicated both by recording technologies and by a détournement of the commodity form. (Born, 2005, pp. 27-28)

The bell jar paradox appeals to me because low-quality vacuums compromise the preservation of the specimen. At the same time, a performance, deprived of its medium, fades as a vacuum is created. This inherent paradox is another example of how certain complementary variables of a musical work, its performance and recording, cannot be known simultaneously. It also suggests that there is a living presence that must be maintained and refreshed.

The playful and associative reflections presented here underlign *Malý velký Svět*'s connection to childhood and games, themes that helped expand my notion of score. It allowed me to shift my focus towards notation and documentation as a medium for creating an intimate dialogue that extends outwards. Further experimentation with multiple authors (with performers writing notation and texts) could enhance the use of multiple formats greatly. The other miniature I wrote for Luciane, described in Chapter 3.5.1, a discussion of *Malý velký svět –THE PANTHER,* is an example of experimentation that will explore such a direction further.

This concludes the chapter on how my notational practices aim to celebrate and encourage collaboration. Of course, my choice is not without peril, since it uses a highly personal system that requires regular updates. It is also for now only giving information to the instrumental performers; the electronics performer's part is as yet absent. This is a question of time: I have practiced the electronic part only on a very limited number of occasions (since for now I require the performer to be present to "tune" the live electronics to the rehearsal and performance situation) and I am still defining that aspect of the work. Eventually, however, this layer should be added. Somehow I feel this is within the spirit of the hyperscore as an open document that is defined by its latest iteration.

6. CONCLUSION

Over the course of this doctoral work, I have often wondered about the connection between the source material I carry from my family history and that which was generously offered by the specific performers I worked with. One of the paradoxes of trying to inscribe the characteristics of another (whether alive and embodied or dead and mediated) within my work is that what comes into ever clearer focus is the inescapable filter of my own gaze. I find the following statement by William Kentridge sums up the conundrum well:

> There has to be some gap, some lack, which provokes people to spend 20 years, 30 years, making drawings, leaving tracings of themselves. It has to do with the need to see oneself in other people's looking at what you have made. An insufficiency in the self, the need to be a snail, leaving a trail of yourself as you move through the world. Hansel, leaving a trail of crumbs to lead you home. To leave a report of the journey around the center on the walls of the studio, of galleries of museums. As if it is in the reflection of people looking at these traces that one finds one's existence. (Kentridge, 2014, p. 175)

Another is Sartre's "illusion of immanence," the delusion of thinking that an image is *in* our consciousness and that the object of the images is *in* the image (Sartre & Elkaïm-Sartre, 2004, pp. 39-40): these works for specific performers, even as portraits of a sort, do not represent them, and neither do any number of hyperlinks in a score. However, the documentation of *Sharp Splinter* and *BitterSweet* – including this text – are attempts to leave a trail if only to provoke other peoples' reflections. From a more altruistic position, it is also an effort, however imperfect, to bear witness to a coming together of ideas, to find a way to tell stories together.

None of these works would have taken the form and sound they did, were it not for the specific performers for whom they were composed. This is true for a great number of works in electroacoustic music; an art that encompasses increasingly inhomogeneous forms and that inherently challenges the traditional work-concept of scored instrumental music. By focusing on and privileging collaboration in *Sharp Splinter, BitterSweet* and this discussion, I have tried to develop one alternative to the work-concept that sidesteps the categorization of composer or performer and of fixed or schematic, exploring the dialogue between them instead. Collaboration offers a forum for such dialogue, in which the tools of language – translation, transcription, and analogy – are particularly useful. *Sharp Splinter* and *BitterSweet* were not only written collaboratively, they were about collaboration (especially *Malý velký svět*), and thus there is a *mise en abîme* that draws attention towards a recursive vanishing point. Perhaps the self-reflexive nature of research-creation lends itself to such strange loops.

6.1 Next steps

In the first chapter, I proposed that the main question I was investigating was: how does collaboration define the performances and scores of my electroacoustic works? I now suggest an equally succinct answer: through privileging dialogue and the collection of personal idiom in workshops on the one hand, and the encouraging and display of that dialogue and idiom in the works themselves on the other. The trickiest puzzle was to find how to inscribe what happened between us into the score itself, and as incomplete and imperfect as the hyperscores for *Malý velký svět* are, they offer a direction for future efforts; *Incomplete Correspondence* offers another. Ironically, as I prepared these augmented scores, I realized that it was the loneliest part of the process: as the ‘composer’ it was still up to me to find the right words, recordings and videos. Once again underlining the power of collective thinking, it was in the workshop with Luciane one year after the premiere that we came up with the idea for “Inspirational Explanations” for each movement, where the performers speak about the works, and she kindly offered to make some right away. This made me feel much more at ease about trying to include the performers' voice in the score, since here it was without so much of my filter. Her eagerness to be a more active part of the scoring process inspired me to work towards more performer-generated parts in current projects.

6.1.1 Division of labour

In three of my current collaborative projects, the responsibility of the score shifts away from the composer.

With Monty Adkins, we have created a suite of electroacoustic works, *Lepidoptera*, around a consort of instruments I own built by Adriana Breukink according to a renaissance consort by Schnitzer housed in a museum in Vienna. We wrote these works together: it no longer makes sense to speak of roles, since we have both edited, processed, and shaped the sound and form of the works. I am the instrumental performer, and most of the sounds originate from my playing of this consort, and I am mostly responsible for my part. As such, it was natural for me to create suitable scores. Since most of the sounds involved some alterations and extensions to the ‘regular’ sound of the instrument, and since I was often meant to interact with electronics (both live processing and fixed media), I made myself videoscores in which I could follow the timeline and see the kind of information that was pertinent—waveforms, spectrograms and fingerings. It has given me a new appreciation of the mnemonic nature of notation and of finding just the right amount of information to trigger the many things stored already in my mind already. Since these works are for myself only, I have the freedom to choose exactly the elements I require in performance.

In an upcoming collaboration with flautist Marie-Hélène Breault, *l’umid’ombra/il sogno,* we will explore the notion of performer-generated scores more specifically. I want to explore what it is like to use not only recordings of a performer, but elements they have notated themselves. I believe this non-hierarchical relationship will add another level of exchange, one which circumvents my transcription of someone's playing into a score to be sonified, while also likely presenting both of us with new notational challenges and solutions.

6.1.2 Portraiture

Looking at specific performers in terms of idiom brought me to a host of analogies based on language, which translated rather smoothly to sound and music. Around the same time as I started investigating the idiom paradigm, I also began thinking about what portraiture (and its visual art tradition) could mean for a musical setting. What would a musical portrait gallery sound like? In an art form without framing, how could the effect be achieved? Clearly, the analogy was more obscure, yet *Sharp Splinter* and *BitterSweet* sharpened my skills for the “sittings” (workshops with musicians individually and as a group) and for subsequently working the portraits (recordings of those workshops). *Portrait Collection*[18] is something between a band and an installation. Until now, the public showings have taken the form of performances with several of the musicians. These performances are part of a process of accumulation and expansion of material to be remixed into an eventual installation where the musicians are no longer present, yet their portraits remain. This will allow listeners to experience their playing without the ritual or temporality of concert performance. The premiere will take place in June 2016 at the Gesù Church in Montreal.

There is very little score for *Portrait Collection,* other than our memories of what we may have done or said last time. I am again the director and score-keeper, which in this case involves collecting traces of our "sittings" through recordings, which I later sort and then display during the performance or installation. This project allows me to continue using many of the working methods I used in *Sharp Splinter,* especially *Malý velký svět*, within a context of improvisation, where the main instruction to the performer is to be themselves.

6.1.3 Playing Times and Spaces

Specificity and/of transmission, then, are at the heart of these current projects and the continuation of my investigations in *Sharp Splinter* and *BitterSweet.* The traces of the past, brought to us through recorded media, and the prescriptions for the future, suggested by scores, affects our perceptions of some of the basic elements of live performance: presence, time and space.

> A placeless place and a timeless time bring the self into crisis, for how can a subject situate herself within these conditions? And, if the subject is perpetually in crisis, does she revise her own personal history in order to recapture a sense of "personal sameness and historical continuity"? Or does she instead reside within a permanent state of difference and discontinuity? (Ouzounian, 2008, p. 37)

---

[18] Daniel Blake, soprano saxophone; Katelyn Clark, harpsichord/organetto; Peter Evans, trumpet, Mary Halvorson, guitar; Dana Jessen, bassoon; Adam Kinner, tenor saxophone; Philippe Lauzier, bass clarinet; Cléo Palacio-Quintin: flute.

The perceptive repercussions of increasing amounts of mediated traces and spaces in live performance are some of the questions I hope to address in the postdoctoral research I will undertake from 2015-2017 at Wesleyan University, under the mentorship of Paula Matthusen. My research creation will focus on how media technology changes a performer or a listener's perception of time, space and living presence; and how performers use such augmented perception in the organization of sound in multimedia/intermedia performances. Portrait Collection is one of the case studies, as is the next instalment of my solo project *Bird on a Wire: NESTING*.

6.2 All told

This doctoral research-creation propelled me a long way further in my technique and ability as an electroacoustic composer. My practice and research into collaboration, and allowing others to take such an important role in the process, generated a new way forward for me in the notation of many things that before were left to oral transmission, and I believe this direction holds much in store. It is almost as if, when the dialogue is closer, the more there is (and the more difficult it is) to share, and so the more grateful I was to have a collective to find answers with. Even as I am moving towards other types of collaborations, performances and scores than those described here, these discoveries remain essential markers along the way.

Bibliography

Abt, C. C. (1987). *Serious games*. Lanham, MD: University Press of America.

Anderson, L. (2006). Analytic autoethnography. *Journal of Contemporary Ethnography, 35*(4), 373-396.

Bailey, D. (1993). *Improvisation : its nature and practice in music*. New York: Da Capo Press.

Baroni, M. (1999). Musical grammar and the study of cognitive processes of composition. *Musicae Scientiae, 3*(1), 3-21.

Baroni, M. (2006). Hearing musical style: Cognitive and creative problems. In I. n. Deliège & G. A. Wiggins (Eds.), *Musical creativity : multidisciplinary research in theory and practice* (1st ed., pp. 78-93). New York: Psychology Press.

Barthes, R. (1981). *Camera lucida : reflections on photography* (1st American ed.). New York: Hill and Wang.

Born, G. (2005). On Musical Mediation: Ontology, Technology and Creativity. *Twentieth-Century Music, 2*(1), 7–36.

Breault, M.-H. (2013). *Du rôle de l'interprète-chercheur en création et re-création musicale : théories, modèles et réalisations d'après les cas de Kathinkas Gesang (1983-1984) de Karlheinz Stockhausen et de La Machi (2007-2011) d'Analía Llugdar*: [Montréal] : Université de Montréal.

Brown, A. R., & Dillon, S. (2013). Meaningful Engagement with Music Composition. In D. Collins (Ed.), *The act of musical composition : studies in the creative process* (pp. 79-110). Burlington, VT: Ashgate.

Caillois, R., & Barash, M. (2001). *Man, play, and games*. Urbana: University of Illinois Press.

Daoust, Y. (2000). Pensée concrète, démarche abstraite. *Circuit : musiques contemporaines, 11*(1), 34-42.

Deliège, I. n. (2006). Analogy: Creative support to elaborate a model of music listening. In I. n. Deliège & G. Wiggins (Eds.), *Musical creativity : multidisciplinary research in theory and practice* (1st ed., pp. 63-77). New York: Psychology Press.

Domenici, C., & Taylor, A. (2014). *Beyond the Work-concept: a case study of shared authorship in music*. Paper presented at the Performance Studies Network Third International Conference, University of Cambridge. http://www.cmpcp.ac.uk/PSN3/PSN2014_DomeniciTaylor.pdf

Donin, N. (2013). Empirical and Historical Musicologies of Compositional Processes: Towards a Cross-fertilization. In D. Collins (Ed.), *The act of musical composition : studies in the creative process* (pp. 1-26). Burlington, VT: Ashgate.

Eco, U. (2004). The Poetics of the Open Work. In C. Cox & D. Warner (Eds.), *Audio culture : readings in modern music* (pp. 167-175). New York: Continuum.

Emmerson, S. (2000). 'Losing touch?': the human performer and electronics. In S. Emmerson (Ed.), *Music, electronic media, and culture* (pp. 194-216). Aldershot ; Burlington, USA: Ashgate.

Eno, B. (2004). Generating and Organizing the Arts. In C. Cox & D. Warner (Eds.), *Audio culture : readings in modern music* (pp. 226-233). New York: Continuum.

Ferrari, L. (1998). Luc Ferrari Interview July 22, 1998. In D. Warburton (Ed.). Paris Paris Transatlantic Magazine.

Gruber, H. E., & Davis, S. N. (1988). Inching our way up Mount Olympus: the evolving-systems approach to creative thinking. In R. J. Sternberg (Ed.), *The Nature of creativity : contemporary psychological perspectives* (pp. 243-270). Cambridge ; New York: Cambridge University Press.

Hasse, J. E. (1993). *Beyond category : the life and genius of Duke Ellington*. New York: Simon & Schuster.

Hayden, S., & Windsor, L. (2007). Collaboration and the Composer: Case Studies from the End of the 20th Century. *Tempo, 61*(240), 28-39.

Häyrynen, Y.-P. (2009). *Creation in science, art and everyday life: Ideas on creativity and its varying conceptions.* Paper presented at the Can creativity be measured?, Brussels.

Holzman, L. (2009). *Vygotsky at work and play*. New York: Routledge.

John-Steiner, V. (2000). *Creative collaboration*. Oxford ; New York: Oxford University Press.

Kagel, M. (1983). *Tam-tam : monologues et dialogues sur la musique, textes réunis et présentés par F. Schmidt et J.-J Nattiez*: Christian Bourgois Éditeur, Paris.

Kentridge, W. (2014). *Six drawing lessons*. Cambridge, Massachusetts: Harvard University Press.

Lalitte, P. (2006). Towards a semiotic model of mixed music analysis. *Org. Sound, 11*(2), 93-100. doi: 10.1017/S1355771806001348

Landy, L., & Jamieson, E. (2000). *Devising Dance and Music: Idée Fixe*. Sunderland: Sunderland University Press.

Lerdahl, F. (1988). Cognitive constraints on compositional systems. In J. A. Sloboda (Ed.), *Generative processes in music : the psychology of performance, improvisation, and composition* (pp. 231-259). Oxford Clarendon Press Oxford University Press.

Leroux, P. (2010). Questions de faire; La génétique musicale *in vivo* vue du côté du créateur. *Genesis, 31*, 55-63.

Lewis, G. (2004). Improvised Music after 1950: Afrological and Eurological Perspectives. In C. Cox & D. Warner (Eds.), *Audio culture : readings in modern music* (pp. 272-284). New York: Continuum.

Lewis, G. (2008). *A power stronger than itself : the AACM and American experimental music*. Chicago: University of Chicago Press.

Lewis, G. (2010). *Rethinking Diversity: New Music in the Global Context*.

McLuhan, M., & Fiore, Q. (1967). *The medium is the massage*. New York,: Random House.

Ouzounian, G. (2008). *Sound Art and Spatial Practices: Situating Sound Installation Art Since 1958.* (PhD), University of California, San Diego.

Root-Bernstein, M. M. (2013). The Oxford handbook of the development of imagination. In M. Taylor (Ed.), *Oxford library of psychology* (pp. 417-437). Oxford ; New York: Oxford University Press.

Rubinoff, K. (2008). (Re)Creating the Past: Baroque Improvisation in the Early Music Revival. *New Sound, 32*, 79-92.

Rzewski, F. (2004). Little Bangs: A Nihilist Theory of Improvisation. In C. Cox & D. Warner (Eds.), *Audio culture : readings in modern music* (pp. 266-271). New York: Continuum.

Salter, C. (2010). *Entangled : technology and the transformation of performance*. Cambridge, Mass.: MIT Press.

Sartre, J.-P., & Elkaïm-Sartre, A. (2004). *The imaginary : a phenomenological psychology of the imagination*. London ; New York: Routledge.

Schroeder, F. (2015 forthcoming). Bringing practice closer to research - seeking integrity, sincerity and authenticity. *International Journal of Education through Art*(Education through Art: Practice-based Research in Art and Design).

Sloboda, J. A. (1985). *The musical mind : the cognitive psychology of music*. Oxford Clarendon Press; Oxford University Press.

Small, C. (1998). *Musicking: The Meanings of Performing and Listening*. Hanover: University Press of New England.

Vladislav, J. (1979). *Vety*. Praha: Samizdat, Edice Kvart.

Vladislav, J. (2012). *Otevřený deník*. Praha: Torst.

Vladislav, J. (2014). *Přiběhy/parafráze* (D. M. Horakova, Pavel; Placak, Jan; Suchy, Jiri; Wernisch, Ivan Ed.): Edice soucasne ceske poezie.

Vygotsky, L. (1978). *Mind in society: the development of higher psychological processes* (M. Cole, Trans.). Cambridge: Harvard University Press.

Wikipedia. (2014). Bell Jar. Retrieved February 17, 2015, from http://en.wikipedia.org/wiki/Bell_jar

Appendices

Appendix A: Thesis Documents

1. *AhojAhoj*

2. *BitterSweet*

3. *Love Song for MAD*

4. *Malý velký Svět*

Appendix B: Presentations/Publications

B 1. Musicians at Play: Collaboration between performers and composers in the creation of mixed electroacoustic music

I presented the following paper at the Toronto Electroacoustic Symposium 2012; it was subsequently published in the CEC's eContact! 15.2 and is accessible at: http://cec.sonus.ca/econtact/15_2/hron_collaboration.html

As a practice-based and -biased researcher, I offer the following observations from the field, *in situ* as a performer working with composers in the creation of new works involving electronics. As such, these observations almost entirely subjective, but hopefully somewhat balanced by the fact that the study group is growing steadily. The two *Bird on a Wire* projects comprise 15 of my collaborations with composers, representing a wide range of æsthetics, genres and technologies within and outside of electroacoustic music, from acousmatic to noise by way of instrumental and free improvised music.[1] The composers also had a wide range of experience with electronics, in terms of type and complexity — some had never worked with live processing (the challenge set in the first set of pieces), others had never tried multi-channel composition (the same for the second). As such, this study group represents the healthy diversity that exists in electroacoustic music. It is, nevertheless, also tied together by a similarity: with one exception, none of the composers had ever written for the recorder before, so a large part of what they would learn about the instrument came directly from me.

As well as acting as a field report on mixed electroacoustic music, I hope to relate some of the new perspectives I've come to at this juncture, especially in terms of the collaborative process, whose investigation has been the core of my interest for some time. I do not deny that as my particular understanding of the subject evolves, I increasingly and actively foster and encourage collaboration. In fact, the bulk of my observations about and investigations of *scaffolding* and *play* flow directly from having set up working situations in which collaboration can thrive.

---

[1] See the author's website for more information on these projects.

Bird on a Wire I: Learning How

In Fall 2008, I received the first set of pieces for recorder and live electronics from six composers[2] and together with one of them, Juan Parra Cancino, I put together a touring, evening-length show. What struck me at that time was the realization that it was the collaborative aspect of the compositional process that most excited me. In preparation, I had met with each composer, mostly in their hometowns, at the beginning of the project, so they could choose one of my many instruments and we could discuss initial ideas about sound, poetics and technology. Then I met with them again once they had some material, usually to test out the live processing patches or parts of the score, Finally, there was a flurry of exchanges during my week of rehearsals when problems needed solving. What I noticed was that the pieces I most connected with were also the ones that were not only most "idiomatic" to the recorder, but they were also so idiomatic *to me*, exploiting my playing fetishes and avoiding my pet peeves. This started me thinking about what "made to measure" could mean in terms of an electroacoustic musical work. I also felt that as a performer, the pieces were no longer just about and belonging to the composers, they were also mine — not because I want to claim ownership or to have compositional credit, but because I became so intimate with them and the ideas behind them.

The other important point to make here is that I invented the project because I wanted to learn more about the possibilities of real-time processing. Freshly in love with the Amsterdam free improv scene, I was mostly interested in seeing what "interactivity" using technology meant and how it felt. And honestly in this sense, the project was a complete success: I learned *so* much about mixed electroacoustic music. Perhaps not as much on the philosophical level, but on a very practical one: what touring means in this medium, how does one record this music, etc. It was the crash course I had been looking for, and my teachers were the composers and the challenges they set.

---

[2] The composers for the first *Bird on a Wire* project were Jim Altieri (USA), Ronald Boersen (Netherlands), Juan Parra Cancino (Chile/Belgium), Peter Hannan (Canada), Laurie Radford (Canada) and Peter Swendsen (USA). I also wrote a piece for this project.

Bird on a Wire II: Inviting More

As much as I enjoyed the adrenaline of that first show coming together, I knew that I had to restart immediately, because the most fun had been working together with composers. It was clear to me that for *Bird on a Wire II: Flocking Patterns*,[3] I would try to create a situation in which there could be an even greater degree of interaction. My tactics were simple: I would give them a challenge that I hoped they would need or welcome my help with. This challenge was to write pieces involving interaction between me and the computer (with another performer at the computer) in eight channels. The challenge was complicated enough that I had more than one workshop with almost each composer, including time in an 8-channel studio. By then I realized that the interactivity I was looking for was on the level of collaboration between two creative artists, so that the pieces would become not only the composers' reflections on my recorder playing in an immersive environment, but that they might in some way define our musical relationship. Some of the composers felt my contribution large enough to merit a composition credit. Others honoured me by including samples of my playing in the pieces, often expanded and embellished in the most touching ways. Playing these pieces feels like being remixed myself, and it is a wonderful experience.

I tried not to infiltrate their compositional process in any forceful way, but I did have two personal motivations:

- To introduce composers to my personal instrumental style (including technological aptitudes and limitations) and invite them to use / exploit / abuse these sounds and techniques. Meanwhile, I learned as much as I could about their sonic imagination and proclivities so that I could best highlight them in the music.
- To be the Zone of Proximal Development — whereby I might learn and adopt new modes of playing, interacting with technology, etc.

---

[3] The composers for *Bird on a Wire II* were Daniel Blake (USA), Jorrit Dijkstra (Netherlands/USA), Jenny Olivia Johnson (USA), Emilie Cecilia LeBel (Canada), Paula Matthusen (USA), Darren Miller (Canada), Robert Normandeau (Canada) and Elliott Sharp (USA). Hildegard Westerkamp (Canada) is also part of the set, but our collaboration is still ongoing and the piece has yet to be premiered.

The Zone of Proximal Development for all Ages

L.S. Vygotsky, a psychologist from the early twentieth century, whose work is essential for scholars of childhood development and psychology, defined the zone of proximal development (ZPD) as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky 1978, 86). I suggest that there are so many areas of expertise within musical culture, on all levels — be it æsthetic, instrumental, technological, improvisational, and the list goes on — that as a single creative person, I only inhabit as many of those areas as the nodes on my hub, and each collaboration can generate such a node. In a recent interview, fellow performer collaborator Heather Roche shared her two favourite collaboration descriptors with me: *intimacy* and *dialogue* (Roche 2012). Intimacy and dialogue are part of the scaffolding we create for one another within the zone of proximal development to promote the dissemination of expertise and produce nodes of understanding.

Learning and Creating Through Dialogue and Intimacy: Theories of Play

Every parent and teacher understands an intuitive connection between learning and play. Most also recognize the value of play among children of similar and different ages in fostering learning, through closeness and exchange. Similarly, in thinking back on the whole process of *Bird on a Wire*, it struck me that the modalities of the collaborative exchange and the works that emerged mirrored the games and role-play that we are familiar with as children. If I were to relate to how the best of those meetings, exchanges and finally pieces *felt*, they were like really good play dates with friends — who often had great new toys!

In his lengthy discussion of the role of play in learning and the creation of meaning in our personal development, Vygotsky observed that as we age, “the old adage that children’s play is imagination in action can be reversed: we can say that imagination in adolescents and schoolchildren is play without action” (Vygotsky 1978, 93). I would suggest that in the journey of a work from the imagination of the composer to its incarnation in sounding action, play can act as a catalyst, returning us to the stage of imagination in action. When I read Clark Abt’s classic definition of game, as “an activity among two or more independent decision-makers seeking to achieve their objectives in some limiting context," (Abt 1970, 6) it strikes me that a score or "the work" could be just such a limiting context. The collaborative creation of a work, in many of my experiences, charts the progression in which free-form play turns into a specific game.

That is in line with Roger Caillois' continuum from *paidia*, unstructured and spontaneous activities (playfulness), to *ludus*, structured activities with explicit rules (games). He also remarks on our tendency to turn *paidia* into *ludus*, even as established rules are always challenged and tested by more impulsive tendencies (Caillois 2001, 13). Caillois describes play using six major characteristics:

1. It is not obligatory;
2. It occupies its own time and space;
3. Its results are uncertain;
4. It does not create material gain, ending as it began;
5. It is governed by rules that suspend ordinary laws and behaviours;
6. It involves make-believe, "accompanied by a special awareness of a second reality or of a free unreality." (Caillois 2001, 10)

Caillois goes on to describe four main forms of play:

1. *Agon*, or competition;
2. *Alea*, or chance;
3. *Mimicry*, or role play;
4. *Ilinx* (whirlpool), altered perception.

In my experience of the most satisfying collaborations, there emerges from the *paidia* of brainstorming, sketching, trying out patches, writing bits of score, recording samples, improvising in the studio, practicing a more definite score, revising after testing, etc., a work with explicit rules, the *ludus* of the imagined made manifest. As a performer, when I am intimately involved in that manifestation, I connect to the work in a whole different way. It is not merely that two sets of ideas have intersected, but that the resulting *ludus* reflects the *paidia* of our relationship and exchange. At the same time, his descriptions of the forms of play neatly describe some of the exchanges that happen in the preparatory process towards the final work, or in the form of the work itself.

What follows are more specific examples of how the different collaborations of *Bird on a Wire II: Flocking Patterns* fit into Caillois' forms of play.

Show and Tell — Mimesis (and Agon?)

This is a game collaborators often play during the preparatory process. It's a way to get to know each other and the things we like doing most. It becomes particularly interesting when these exchanges are captured in usable, high-quality recordings because they can provide material for a kind of (Show and Tell)^2, which is when you take what the other shows you and reinvent it for the other to rediscover.

"Recognizing" my performative voice in the music (both played back in samples and to be played in the score) is one of the most intimate experiences I've had as a performer, since it allows me to hear myself through the kaleidoscope of another's ear.

Show and Tell can also be an exercise in virtuosity, both in what is expected of me, and in the technological sense. For example, saxophonist and composer Dan Blake came to the project with some basic knowledge of programming, but no experience writing mixed music. His jazz background brings with it a very clear bent towards performative virtuosity. *First Beginnings* was based on the improv session (i.e. Show and Tell) we had during the first collaborative meeting (I recorded all of these sessions so that the composers could use the material if they wished). The first movement was a mashup of tiny fragments he had edited and reordered from the recordings that he then meticulously notated (i.e. (Show and Tell)^2). It was the most technically challenging piece, but what else should I expect from such a virtuosic instrumentalist?

Meanwhile, the most adept multi-channel composer of the set, Robert Normandeau, offered a similar "relistening" and "replaying" of an improvisation of mine he had recorded. Since he doesn't often work with notation, he presented me with a soundfile of his montage of my improvising, which would be accompanied by a surround "chorus" of birds controlled by my playing, accompanied by an immersive octophonic environment (Audio 1).[4] I was captivated by how effectively his work *La Huppe* used simple envelope following to create this long tail for my sound without the usual delays and reverbs — a very satisfying playing experience. It felt somewhat like his Show and Tell about multi-channel environments.

Audio 1 (0:32). Excerpt from Robert Normandeau's *La Huppe* (2011 / 6:35), for contrabass recorder and live electronics.

Cadavre Exquis / Round Robin — Alea (with a Hint of Ilinx?)

Who knows what will happen next? + Who knows who started what? — a personal favourite of mine. This game seems particularly attractive to improvisers who like to be surprised, even in composed settings. The three examples here are from the three performing, improvising instrumentalists of the group.

Dan Blake's piece includes a "collage space," wherein I respond to samples from a large set triggered — possibly simultaneously — by the electronics performer (Audio 2).

Audio 2 (0:26). Excerpt from Dan Blake's *First Beginnings* (2011 / 10:01), for tenor recorder and live- triggered soundfiles.

Elliott Sharp's *In a Coalmine…* offers a very free score of eight parts, which are to be recorded and then played back over eight individual, dedicated channels. In performance, the soloist performs one of these quasi-improvisatory parts, responding to the sound of the other voices in the space (Audio 3). Elliott was playing with the difference tones and resonances created, as well as letting there be a large space for spontaneous decisions.

Audio 3 (0:20). Excerpt from Elliott Sharp's *In a Coalmine…* (2011 / 5:22), tenor recorder, fixed media and live electronics.

---

[4] The author's *Bird on a Wire II: Flocking Patterns* was released in 2012 and is available through Diffusion I MéDIA.

Finally, Jorrit Dijskstra's *Slo-Poke* arrived as a set of instructions, much like a board game. It called for a system of live capture, transposition and looped playback by the electronics performer, with me moving around the room. Jorrit wanted to play with the illusion of live and reproduced sound, of the sameness of material that could be looped — the slos — with material that popped out of the landscape — the pokes (Audio 4). Again, the piece requires that I respond to what is happening without always knowing what's coming, or what just happened.

Audio 4 (0:28). Excerpt from Jorrit Dijskstra's *Slo-Poke* (2011 / 4:19), for G-Alto recorder and live electronics.

Obstacle Course — Agon of Course (but Falling into Ilinx Sometimes…)

I'd argue this is the most well-known formula for the virtuosic instrumentalist. The Olympic sport with all the points given for technical elements delivered in time with artistic flair. Since I think it is the game that most resembles instrumental music from the 19th-century Western tradition, I won't spend much time here.

Choose your Own Adventure or Make-Believe Land (Mimesis and Hopefully Ilinx)

It is particularly fun when part of the preparatory process can involve parts of the make-believe land, or its creation. I tried to foster manifestations of such mind-altering environments by providing time in an 8-channel studio (through individual weekend workshops with each composer), recording and sending any desired material ahead of time, and providing assistance with patch-building or technological solutions. Paula Matthusen came to her workshop with 8-channel patches ready to go, and her piece flowed directly from what happened when we played with them in the studio. Likewise, since Daniel Blake sent his score sketches ahead of his workshop and I sent him recordings of some material in advance, we were able to build a prototype of his computer patch so that he could imagine how the piece would function and sound, working on its story rather than the technology.

I would like to add that programmatic elements have always provided a script for performance. However, I think that this can have a much stronger ludic element when what is created — and technology allows make-believe on a bigger scale — is a costume and a set for the performer to inhabit. Almost all pieces have some amount of this, but some focus on it more strongly. Normandeau's *La Huppe* asks me to take on the role of the *hoopoe* from the *Conference of Birds*, and the piece itself is a sonic costume.

Emilie LeBel's evocative title, *I saw the penguins' home from the highway*, suggests a story, as does Paula Matthusen's *sparrows in supermarkets*. Interestingly, both of these pieces are written quite specifically for my improvisational idiom. It is as if these composers heard that world in my playing and then created an environment in which my chirping would fit (Audio 5 and 6).

Audio 5 (0:30). Excerpt from Emilie LeBel's *I saw the penguins' home from the highway* (2011 / 10:52), for tenor recorder, fixed media and live electronics.

Audio 6 (0:32). Excerpt from Paula Matthusen's *sparrows in supermarkets* (2011 / 6:15), for tenor recorder, fixed media and live electronics.

Of course, performers will often talk about creating a story or making a game out of a piece they are working on. I am not suggesting that games are only part of collaborative practice, but I do suggest that creating something jointly brings out our gaming experience, and that every pair or group will have particular gaming tendencies.

Wrapping it up with Technology

Despite the many potential difficulties with using — often in an experimental manner — technology, my feeling is that it amplifies and enhances play, through increased immersivity, additional modes of interactivity, and the sonic expansions and extensions to instrumental capacities. Sharing expertise and preferences in tools and instruments is one of the most powerful aspects of collaborative practice. It is not a surprise that for large-scale multimedia productions, many different experts are brought in. The greater the collective expertise, the higher the level of the game. Contemporary performers and composers these days have more and more experience in all kinds of different technologies, and so collaborative play produces results for the work while also expanding the knowledge of the collaborators through the acquiring of skills through expert guidance — the Zone of Proximal Development.

In my present and upcoming projects, I am pointing my next research to how I can use the interaction of technology and play in the collaborative creation of new music to an even greater degree. In my own compositions for other performers, I am exploring how implementing play forms and tactics can define the musical intersection between myself as composer and the performers I work with and how we can make it part of the pieces. As a performer, I am envisioning a third *Bird on a Wire* project in which all collaborators are at once performers, composers and technicians, blurring boundaries but arriving at definitions through play. All these collaborations happen in contexts that use and abuse technology.

Bibliography

Abt, Clark. *Serious Games*. New York: Viking Press, 1970.
Caillois, Roger. *Man, Play and Games*. Chicago: University of Illinois Press, 2001.
Roche, Heather. Personal interview by Terri Hron. 9 May 2012.
Vygotsky, Lev Semenovich. *Mind in Society; The Development of Higher Psychological Processes*. Edited by , Michael Cole, Vera John-Steiner, Sylvia Scribner and Ellen Souberman. Harvard University Press, 1978.

B 2: Exploring the nexus of collaboration, notation and meaning in mixed electroacoustic music

I presented the following paper at the EMS 2012 conference in Stockholm; it was subsequently published in the conference proceedings and is available at:
http://www.ems-network.org/IMG/pdf_EMS12_hron.pdf

Abstract

For acoustic instrument performers of mixed electroacoustic music, the location of meaning is as hybridized and perplexing as the place of the genre itself within musical practice. While most acoustic instrument performers within the (contemporary) classical tradition might search for meaning close to the score, those specializing in mixed music repertoire find that notation often proves a false friend, or at least not a map of the meaning of the work. This presentation is the result of interviews with performers commissioning new works for their instruments and electronics: Luciane Cardassi, piano; Laura Carmichael, clarinet; Dana Jessen, bassoon; Michael Straus, saxophone - and with the composers who have written works for them: Paula Matthusen, Chantale Laplante, Peter Swendsen. My questions revolved around the relationship of notation to the meaning of a work - with particular attention to what changes when technology/electroacoustics plays a part - and the role taken by collaboration in creating that meaning and notation. I suggest that many aspects of these new works, including meaning, are not "written" into the composition, but are "discovered" somewhere between the expertise of the performer and that of the composer. As such, this partnership is a prime example of the "Zone of Proximal Development," introduced by the early creativity scholar, L.S. Vygotsky, who described it as "the distance between the actual developmental level as determined by independent problem solving, and the level of potential development as determined through problem solving under the guidance of or in collaboration with more capable peers."

Introduction

The following is a fairly narrow slice of a large pie that I ordered to help me understand the nexus of collaboration, notation, and meaning in mixed electroacoustic music. I wanted to listen my way into the subject, by asking fellow composers and performers involved in creating mixed electroacoustic pieces collaboratively, what their experiences were. In jumping into a process that meant interviewing my peers, I wanted a better understanding of why and how an efficient (even beautiful) score is sometimes - often in fact - the reflection of the combined breadth of knowledge of the collaborators involved in its creation. This is not only true in the choice and design of more traditional notational practice, but also of newer score formats and types, often necessary in mixed music, like audio and video documents. I also wanted to see how collaborative interaction can lead to greater (verbalized) meaning, and its explanation via the score. This has often been my personal experience of collaborative work, but I wanted to see how that worked for other people.

It was comforting but also troubling to have my own feelings reconfirmed by others, even musicians I did not know before the interview (Heather Roche).[5] The performers I interviewed all shared a passion for collaboration and were concerned about notation. The composers mostly saw the need for and were all open to better, easier solutions. What I hope to share here are some of my own conclusions, which unfortunately do not include a new notation solution. For myself, the interviews allowed me to derive the following:

if

combined knowledge = more efficient (even beautiful) scores

and

shared experience = greater meaning

however,

more beautiful scores *don't always* = greater meaning

but what seems certain is that

---

[5] One can argue that I work with and know people of like mind, and that is certainly true. Heather Roche was recommended to me by Laura Carmichael, who probably also would suggest someone of like mind. I am not providing an unbiased report.

combined knowledge		greater meaning
+	*often leads to*	+
shared experience		more efficient scores

What felt clear, was that there is a connection between notation and collaboration that can be exploited.[6] I use two of Peter Swendsen's works to illustrate such collaborative technical and semantic score-making. But back to the beginning:

The five performers who commission new works for their instruments and electronics that I interviewed were Luciane Cardassi, Laura Carmichael, Dana Jessen, Heather Roche, Michael Straus. The five composers who've written for these performers who I also spoke to were Monty Adkins, Chantale Laplante, Paula Matthusen and Peter Swendsen. I am also connected to the group because I've commissioned a piece by Peter Swendsen, but have been commissioned to write for Luciane Cardassi. In roughly one-hour-long interviews, I asked them a series of questions divided into three sections:

1. the meaning-score relationship
2. notation in electroacoustic music
3. the role of collaboration in creating scores.

Of the hours of interviews, there were some pieces that stood out in reference to each of my key questions, so I use them to give a kind of field report.[7]

Collaboration: how can it help notation?

Before the series of questions about collaboration, I read my experts the following from Lev Vygotsky, whose work from the 1920s on creativity and childhood development and learning felt true to me:

> *what we call the zone of proximal development, it is the distance between the actual developmental level as determined by independent problem solving and the level of potential*

---

[6] Obviously, this was good news, because that reconfirmed my recent composition projects. But perhaps I needed a little encouragement in that direction. In either case, again, this in not an unbiased report.

[7] In the EMS 2012 conference, I played these small sections because I believe there is much in the voice that is lost. I have all the interviews and edits available.

development as determined through problem solving under (adult) guidance, or in collaboration with more capable peers.

I suppose I wanted to show my own bias as well as to have them react to this statement to see whether their own experiences of bringing a piece to creation resonated with the idea of *scaffholding* – another one of Vygotsky's terms – each other to learn the next step.

This *scaffholding* - a temporary framework for construction in progress - of composers by performers who share information about the performance practice of their instrument and tradition, which is still essentially oral, is clearly explained by Laura Carmichael:

In terms of contemporary music, notation can provide a lot of energy, because of the curiosity of different ways that sound can be expressed, and at the same time, whether it's Beethoven, or some really contemporary piece, the music is not on the paper. Not completely. So I feel like so much of our performance practice is about interpretation in that sense, and that is an oral tradition that gets handed down. You still have to make it into a whole, somehow. You can't just be stuck in the page completely, and the page cannot give you all the information you need, in order for it to come to life.[8]

And when it comes to electroacoustic music, what is not on the page increases when electronics are involved. Not only is there a performance tradition of the instrumental practice, but new instruction needed for how to score the electronic elements. Pianist Luciane Cardassi talked about just some of her frustrations with a lack of clarity in scores involving electroacoustic elements:

And there are so many things that are often left outside the score. Like, the sound itself, right, when I play in different pianos, in different spaces. There is often a different acoustic, but still it is one instrument. Now if we play with electronics, everything is different. Just the placement of the speakers, for example, is very often not part of the score, not discussed on the score, or the kinds of sounds that the composer wants to have… You know, I would say most of the

---

[8] All quotes are transcriptions of my interviews with these musicians in April and May 2012. I have not edited or abbreviated the conversational style, other than to take out any pauses.

scores I see for piano and electronics, say it's for piano and stereo speakers or four, or a number of speakers, but the actual placement is very difficult to talk about, also because they don't know where the piece is going to be played. We would need to have some sort of explanation of what is wanted. And now, I'm not talking about a collaboration.

So I suggest that the performer can act as the ultimate debugger of a piece. I'm sure most instrumental music composers have had the experience of how much sharper the focus of a piece become when an expert performer asks questions. Luciane Cardassi is very interested as a performer in helping prevent disasters, as she explains:

When I look at the score, and everything is so intensely and then so carefully notated, but I feel the composer went out of their way to make those decisions that will have to be different in a different hall or at a different instrument. So sometimes I think it's excessive information, because you're trying to do, to give everything that's been so carefully decided, that it can be a really bad thing. Because I want to go and play everything, and then I go to a different hall, and it doesn't work.

Collaboration: what are the issues for scoring?

In collaborative work the composer -sound-score/meaning-sound-performer relationship can be very intense, because often the piece is written so specifically for - and in some ways so determined by - an exact performer. In talking about what determined the score of the piece she wrote for me, Paula Matthusen says:

There's a weird sense of ownership that happens in electronic music between composer and performer that I don't think people necessarily talk about a lot, because it's not just that I'm giving them, like "your piece," I'm actually giving them you playing – those are samples of you. So I think there's something there that's interesting. And that's why in a lot of electronic music, in the notes I say, 'make sure to write that this was written for so and so,' because there is a sense in which the authorship is inherently destabilized by that, because it really comes out of this process of recording and back and forth, at least for myself.

I think Paula pretty much puts her finger on ownership issue, but I will not follow that tangent. I felt it worth mentioning, because it is an issue that mills around this topic. I would instead I'd like to focus on how mixed electroacoustic scores are often no longer just on paper, but include different types of media. Often that media, as Paula mentions, would not exist *without* the performer. In that sense, this invaluable information - and sonic material for the piece - would not be possible without collaboration. This is also where the general and specific knowledge that we call "performance practice" – usually passed along verbally, either in orchestration books or from the mouth of an expert performer – morphs from information about the history and practice of an instrumental practice into often non-verbal, sometimes entirely sonic exchanges, of the kind that happen intrinsically when improvising or playing chamber music. It seems to me that the conventional idea of "score" has yet to cross into a landscape where a written notation could be accompanied by, or even replaced with, some kind of score entirely in sound. Some composers have, of course, embraced the diversity that technology and studio-based techniques have brought to mixed music. Some of these even include conceiving not only of different performative media but also of pieces that challenge the linearity/hierarchy of the Western tradition with contemplations of interactive processes. Monty Adkins' studio-based composition allows for exploration of different approaches to putting mixed music together, including interactivity and the making of scores through collaboration. He reflected the following:

No, I don't have any persistent frustrations [about notation] *really, but I suppose this is because I've worked mainly with people who I know, or mainly with people who are used to working in this kind of relationship where you come into the studio, you record a bit – a single person or a small group of people – and they'll try things out, you record it, then you'll build up a relationship more through the kind of sonic backwards and forwards rather than notational possibilities. So more often than not, my questions are not, giving them pieces of manuscript paper and saying 'is this performable, can you do this?' It's more along the lines of 'if I want you to make this sound here that you made in the studio, how would it be best for me to notate it for you?'*

Obviously, here the intersection of performance practice and technology allows for new hierarchies and responsibilities towards the creation of the score.

Unfortunately, over the course of the interviews, my own feeling that the path is still wrought with difficulties was confirmed by the experience of most of the performers. Situations where the studio is used as an effective instrument for creating effective notation seem few and far between. Heather Roche, an active and enthusiastic performer and commissioner of works for clarinet and electronics, remarked:

I've had a number of experiences working with composers where, when we're talking about the clarinet, then I'm the kind of the mountain, and then we go into testing things with the electronics and there were a number of times where I had to stop the composer and beg him, to tell me what was going on, because he was just working and setting things up, testing things, saying 'play this, play this.' Collaboratively, it was a very difficult moment, because in terms of collaboration, I'm more interested in dialogue and the effects that dialogue can have. When one person has not a clue what is happening, that's difficult. And that has only ever happened to me when technology is involved and that I don't know how it works. One of the things that I really like the idea of is, always being able to have practice patches or even just sections of the piece in mp3 even, to be learning the piece alongside the electronics. I mean, it would be like playing chamber music with six other people and only working together on the day of the gig. I don't know: how do you build chamber music with technology?

Of the many things that Heather brings up, I'd like to focus on two: first is the idea that there is not enough information about the non-instrumental parts and the other is that what is left out is crucial information about "what is going on," which for me has a direct link to meaning. Adding to or replacing (parts of) the traditional notated score with other kinds of scoring (anything from the fixed "tape" of a piece, through practice patches and Frankenstein versions[9] to recordings of performances) are necessary for effective communication, from the point of view of making it possible to rehearse and perform the piece within the incredible chamber music heritage. What collaboration between performers and composers clearly does is offer a think-tank and testing ground for possibilities.

Trac(k)ing collaboration & creating meaningful artifacts

Finding common ground, sharing expertise, establishing meaning or direction, these are all hallmarks of pieces created collaboratively between a composer and performer(s). But is this, *can* this be reflected also in a score?

Lev Vygotsky reminds us that:

---

[9] I stole the name "Frankenstein version" from Monty Adkins, who used it to describe a proto-version of a piece where the 'live' instrumental parts have been stitched together with various recordings, simulations, etc.

The zone of proximal development defines functions that have not matured yet, but are in a process of maturing, that will mature tomorrow, that are currently in an embryonic state; these functions could be called the buds of development, the flowers of development, rather than the fruits of development, that is, what is only just maturing (my emphasis). (Vygotsky, 86)

This brings two things to my mind:

1. That in such pieces, the performer has invaluable information about what the score should look like, since the piece took shape in that zone between compositional and performative practice.
2. Documentation of this gestation period could be of great use in defining the performance practice of the piece, i.e. the score.

Gerry Stahl, whose specialty is Computer-Supported Collaborative Learning, proposes that there are three stages in the creation of a collaborative work

1. *People are involved in some collaborative activity involving their interpersonal relations, social context, physical objects, etc.*
2. *Some object, bodily gesture or word becomes associated with this meaning and acts as a persistent externalization of the meaning.*
3. *The artifact can later be used as an embodiment of the meaning that was created in the previous stages* (Stahl, 530).

Even though Stahl is talking about a different field (I believe his work more largely to be in Education) of collaboration, I am attracted to the image of score as artefact of the generative process leading to the fixed work. As a result, I've focused some of the observations made by my interviewees through the lens of these stages defined by Stahl.

The first two stages imply musical intimacy - getting to know, not needing to say. Paula Matthusen gives a good example:

This piece that I had performed last Monday, which was for mostly brass, winds, percussion, but it was also for electric and bass guitar. So James Moore was playing the electric guitar, and the conductor had a lot of questions about the guitar part. James is someone I've worked with a lot, he's performed a lot of my pieces, so I was kind of, 'Ya, James will know what to do.' He knows what I like and likewise, I know what he does, I love what he does, and so it was kind of fun, it felt a little subversive to have that performer in a very classical ensemble *and to have him know what my aesthetic preferences are. It felt like a way of subverting the paradigm of having the very very classical fixed notation, and then, the performer still wins, I feel like.*

Obviously what is going on between Paula and this performer is identifiable but not made overt in the score. She also reminds us that this nexus of meaning, score and collaboration is not at all fixed or stable, a subject worthy of its own discussion.

For performers, the relationship with the composer clearly raises the stakes on meaning in works. Michael Straus, whose commissions for saxophone regularly include real-time electronics, video and robots remarks:

In terms of the pieces that I am performing right now, they all emerge from relationships with various composers. I think the meaning is in the collaboration, for me at least.

That has been my own feeling as a performer, since I have started working with composers. The interviews certainly confirmed that collaboration is of huge importance to my connection and involvement in the meaning of the piece.

It is also important to remember that the composer's injection of meaning or the performer’s understanding of it are not the only ones however, as Peter Swendsen and Luciane Cardassi point out.

Peter Swendsen: *It is not so much that I see the performer the means towards creating a certain kind of meaning for the audience. Rather, I would look at the performer as a partner in that investigation of whatever it is that the original meaning that I either had or was trying to discover. And that together, I and the performer or performers would try to put this process out there for the listener to engage with and construct his or her own meaning. So there are really these three points: the pre-compositional search for meaning, the mid-compositional, working with the performer search for meaning, and then there’s the resulting listener’s search for meaning. But to get back to the middle point, the working with performers point, it’s not that the performer’s role is simply to enact my ideas but rather that we would find a way to bring both of our experiences to this process in a way that would make those come to life more so than I could do on my own.*

Luciane Cardassi: *I can’t explain it very well: there’s something about the energy of everybody there [the audience], trying to listen and get their own meanings, and that’s* *beautiful. So I think there would be several layers there, several meanings: for the performer, for the composer, transferred through that piece of music and interpreted by the audience.* Like a snowball, then, a piece seems to gather layers of meaning as it rolls. And clearly, neither all of the meaning nor its story (with all its intricacy of collaboration) can exist in the artifact of the score. That said, I do think there are examples of scores that flow directly out of the collaborative experience, and as such are in some ways documents of the process. Peter Swendsen's *Northern Circles* and *Nothing that is not there and the nothing that is* are such examples.

Joining forces for effective notation: examples

Both Peter Swendsen's *Northern Circles* and *Nothing that is not there and the nothing that is* were written for specific performers (Dana Jessen/Michael Straus and Jennifer Torrence). Their scores were written largely as a response to working sessions and intense discussion about how to be clear. This clarity exists on many layers of the pieces: from the detailed description of the electronics, to various kinds of graphics that show timelines, techniques, and sonic elements in the music. I believe that the scores speak so eloquently for themselves (and are very effective for any performers of those instruments to follow, as is clear from the fact that the pieces have managed to live and attract interest beyond their first performers and performances), and thus do not need me to enumerate specific examples. I also mention that the original collaborators on these works all refer to Peter's pieces as examples of the best practice, and as such I believe them to be worthy of inclusion. One of the specific aspects that the performers praised was how well integrated the descriptions of the electronic elements of the score were.

The view from the tip of the iceberg

Obviously, eleven hour-long interviews with experts in their field include so many valuable ideas and ways to express them. In the preceding pages, the often lengthy quotes constitute such a tiny percentage of all of that material, synthesized to speak to a thin cross-section of all the issues that were touched upon. What was clear, however, from the discussions is that there is a strong connection between collaboration and the establishment of meaning, and that the score plays a role in carrying that meaning and certain artifacts of that collaborative process.

Another aspect of the story is that of technology, which I have not overtly touched upon, other than to shine light on the fact that electronics do not always play nice with traditional notation and that new techniques and strategies are necessary. What I've also tried to emphasise is that collaborative practice can be harnessed to provide a space for brainstorming, testing and defining these strategies. Future questions include how new technologies interface with other performative traditions, and how studies of collaborative practice in other artistic domains that have creator-performer relationships, such as film, theatre and dance, deal with questions of notation, authorship and individuality.

References

STAHL, Gerry. "Meaning and interpretation in collaboration", Paper presented at the Designing for Change in Networked Learning Environments: Proceedings of the International Conference on Computer Support for Collaborative Learning (CSCL '03). Bergen, Norway, Kluwer Publishers, 2003, pp. 523-532.

VYGOTSKY, Lev. *Mind in Society: Development of Higher Psychological Processes.* Cambridge : Harvard University Press, 1978.

B 3. Useful scores: multiple formats for electroacoustic performers to study, rehearse and perform

This paper is published in the peer-reviewed journal *Organised Sound 19.3: 239-243,*
accessible at http://journals.cambridge.org/repo_A94R5cMV

Abstract

This short article presents the author's ideas about different score formats for instrumental performers of mixed electroacoustic music. Following a trajectory from initial understanding through effective rehearsal and ending in performance, different score formats are discussed. Each is based on and addresses performers' needs and improves documentation and transmission of the composer's intentions and the performer's contribution. The author bases these suggestions on her experience as a performer/commissioner and composer of new mixed electroacoustic works, many of which are collaborative creations.

Background

As a performer/commissioner as well as a composer of new works for instruments and electronics, the nature and role of notation within contemporary electroacoustic music practice is a recurring concern. Recent developments in dynamic scores and my own explorations of them within collaborative creation have led to some observations that might be useful to inventors and interpreters on either side of the notation/performance equation. What follows here, then, is a brief and personal account of how different score types can assist in defining the place of a live performer within an art form that is often largely media- and digitally-based, by incorporating both the prescriptive symbolism and oral transmission inherent in traditional Western instrumental practice as well as the plug and play virtuosity of much electronic and digital music.

A score for every purpose

The idea that a single work can have a number of different scores emerged rather naturally from my practice as a performer. One could argue that the cutting and pasting of badly organised, unwieldy instrumental scores into a customised format is not so different from adjusting an electronics patch for a personal rehearsal setup. Over time, however, I realised that a multiplicity of formats could create a kind of augmented score, one that facilitated transmission/appropriation both technically/technologically as well as aesthetically/semantically. Thus, I created a rehearsal version of the score, which was in video/audio format in the case of my latest piano and electronics work (Hron 2013), and the performance score, which for the same work included the rehearsal video, but with the audio replaced by the performance patch and instructions. This worked well since the piece relied on a somewhat fixed timeline, and the live electronics could be adequately simulated in a fixed rehearsal version. I also wanted to create a hypertext version using visual stills of the score so as to include information about the work's creation (in this case a highly collaborative process involving 3 different pianists), aesthetic and to some extent, meaning. The following is an image of the first movement, *twinkle and loop*, for which the documentation includes a short video about the collaborative process, accessed via the hyperlink of the title.

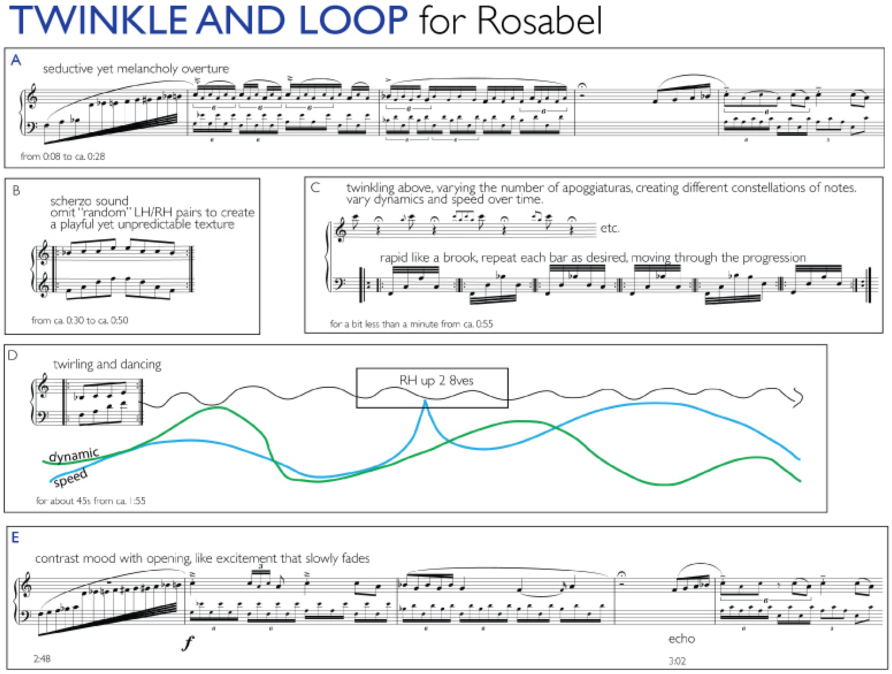

TWINKLE AND LOOP for Rosabel
A
seductive yet melancholy overture
from 0:08 to ca. 0:28
B
scherzo sound
omit "random" LH/RH pairs to create
a playful yet unpredictable texture
from ca. 0:30 to ca. 0:50
C
twinkling above, varying the number of apoggiaturas, creating different constellations of notes.
vary dynamics and speed over time.
etc.
rapid like a brook, repeat each bar as desired, moving through the progression
for a bit less than a minute from ca. 0:55
D
twirling and dancing
RH up 2 8ves
dynamic
speed
for about 45s from ca. 1:55
E
contrast mood with opening, like excitement that slowly fades
f
echo
2:48
3:02

Figure 1. Terri Hron, *Maly velky Svet – i. twinkle and loop.* © Terri Hron 2013 – Characters in blue are hyperlinked

Enhancing the performance practice angle: hyper-scores

Organising the score in this way clearly comes from being a recorder player who faces the emerging notational practices in early music and regularly deciphers contemporary scores. I have ever-present reservations and frustrations with traditional 5-line staff and the way this notation influences and delimits much music, but it is an incredibly powerful communicative tool for those expert in reading it. In a recent interview, contemporary bass clarinet player Laura Carmichael told me:

> I've been learning to read music since I was 5 years old. It's just so integrated into my process of being a musician... I come back to the fact that I am a reader, that's what's in my whole physiology. The notation comes in and my body just reacts: I'm programmed now. Notation can provide a lot of energy about the way sound can be expressed on page. How does someone get their ideas across and how do I understand it, the process of transference of energy is always fascinating to me. (Carmichael 2012)

Clearly abandoning this symbolic language that so many of us "play" seems counterproductive. However, immediately following the above, Carmichael continues:

> I feel like so much of our performance practice is about interpretation and that is an oral tradition that gets handed down... There is an immense amount of information, both written by musicologists but also handed down from generation to generation, and I think contemporary music is like that too. You still have to make it into a whole. You can't just be stuck in the page completely. The page cannot give you everything that you need for it to come to life. (Carmichael 2012)

Carmichael expresses instinctively what Trevor Wishart points to in his discussion of notation and its relationship to the divide between composers and performers, which in instrumental music has led to a hierarchy within the creative process:

> [M]usic is viewed as an essentially abstract phenomenon and the sound experience of essentially secondary importance. More commonly the score is seen as normative on the musical experience. The split in conception between what are seen as primary and secondary aspects of musical organisation leads to a split between composer and performer, between

> composition and interpretation and the gradual devaluation of non-notable formations. (Wishart 1996: 35)

While musicologists do study performance practice and even the performer's creativity, it is still for the most part historical. Furthermore, contemporary performance has seen a resurgence of increasingly individual and divergent practices in the development and augmentation of instruments and their techniques. Innovators always abound, but I would argue that in Western art music, since the establishment of the nineteenth-century orchestra, there was a comparative lull in the development of instruments until the large-scale accessibility of digital technologies. Luckily at present, our tools for documenting and offering information about innovations that formerly could only be transmitted orally have multiplied. Leaving traces of the process leading to the creation of a work and information about its performance practice – which clearly influences the reading/interpretation/performance of its score – is motivated not only by a desire to be clear about my own intentions, but also a commitment to acknowledging the role of artistic collaborators – most often expert performers – who had an integral role in its definition. One only has to look at recent studies about collaborative practice (Roche 2011) to realize to what extent performers play a large role in creation:

> In a musical culture that has understood the performer's role primarily as mediator between composer/piece and audience, very little attention has been paid to the performer's potentially significant mediation between composer and piece. When the latter interpretation of the role is brought into play early in the conception, the performer may take a vital, inventive stance in which 'problems' (musical ideas) are formulated and reformulated in tandem with their 'solutions'. The composer-performer collaboration may thus become a site for the playing out of the dialogic aspects of artistic creation. (Fitch & Heyde 2007: 72)

Hypertext scores, perhaps hyper-scores, are a wonderful solution to adding important performative/aesthetic information without encumbering the largely mnemonic function of a textual score.

Utilising the performers' expertise: common-tech rehearsal scores

My pet peeve as a commissioner and performer of new works for recorder and electronics is a lack of adequate rehearsal options, formats and instructions. There are (at least) two issues here: the first is the absence of definition of the relationship between the performer and the electronics, and the second is an absence of awareness of a performer's rehearsal needs.

Taking the simplest form of music for instruments and electronics, that which uses a fixed medium, I find it surprising how many scores do not provide the performer with information about the fixed part, other than providing it in audio file format. My feeling is that this may have to do with the difference in notation practice for instrumental versus sound-based music. Instrumental notation is for the most part prescriptive, as it offers information about pitch and duration, and to various degrees of precision, timbre. The actual sound produced is not described as such, as the organology of the instrument playing is, again for the most part, taken as a given within the formula of symbols. Notation for music from the concrète tradition, when it is used, is by nature descriptive, as the sound pre-dates the symbol. The following images are analyses of parts of Bernard Parmegiani's *De Natura Sonorum*, the first a diffusion score by the composer himself, and the other a still from an example by Pierre Couprie of the use of the *EAnalysis* software he has designed (and this analysis was originally made in another analysis tool, GRM's *Acousmographe*).

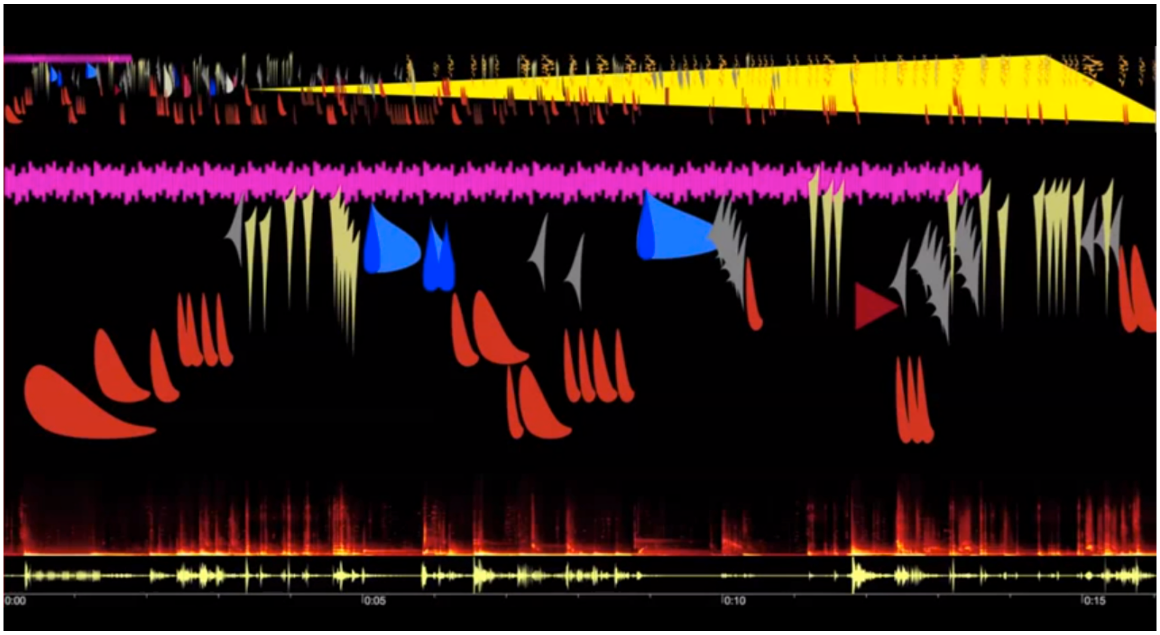


Figure 2. Pierre Couprie, Analysis of Bernard Parmegiani’s *De Natura Sonorum – Ondes Croisées.* Still from analysis made with the *EAnalysis* software.

I include these examples as proof that there are innovative ways and tools for describing fixed media content, and the “sound following” of both *EAnalysis* and the *Acousmographe* is a feature I find very useful. For instrumental performers, such descriptions stimulate the chamber music instinct that prepares them to share the space with the other sounds present. Of course, on some level, a fixed audio track is in itself a score, and may perhaps not need a graphical description, since it can be sounded in space. My own feeling is that while this is often true, any information about the relationship between sounds in the space is always useful, whether in the form of important timings, sonic equivalencies, or blend information.

How to practice this kind of chamber music is key as well, and leads to my second issue: rehearsal requirements. Very few performers have access to full studio setups, or even the hardware/software necessary to run the patches for the works they play. Regardless of the complexity of the setup and their level of interactivity, it is imperative to provide performers with the ability to rehearse using as much of the expertise they already have as possible. To make a traditionalist analogy, it is much like offering a piano reduction of an orchestral score so that a soloist can practice a concerto. Perhaps there is no need for a different "looking" score, but if one considers the whole media package itself as the score, then a rehearsal version could look quite different from the performance version. It might include simulated versions to watch or listen to, standalone versions of interactive patches or video scores with integrated audio to facilitate practice on headphones. In short, common/low-tech versions as close to the performance situation as practically possible. To continue with the same work as the hyperscore example, *Maly velky Svet - i. twinkle and loop* has a video practice score that can be played back on a computer or tablet placed on the piano music stand, with the synchronized audio playback being the fixed parts and a simulation of the live processing. Performers have responded particularly enthusiastically to this kind of tool, since it allows them to learn all parts of the piece and conveniently avoids page turns. A tablet can even be used without the music stand, allowing for easier access to the instrument if there are preparations (as there are in later movements of this work).

Parenthesis: interactivity

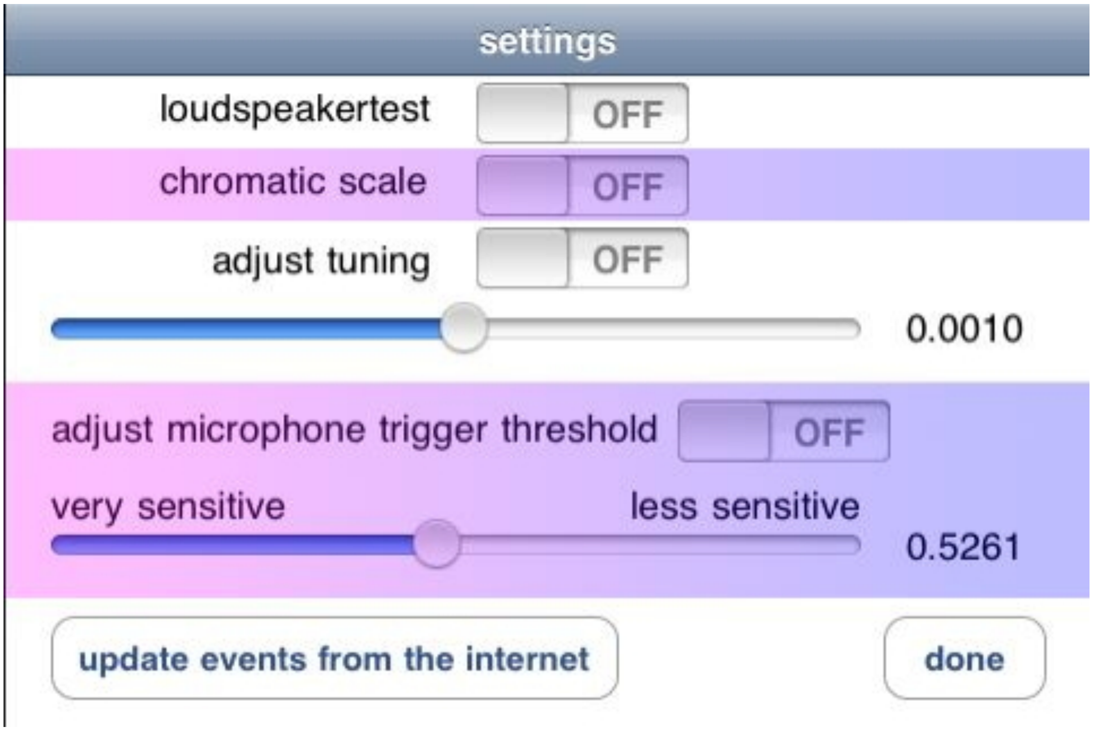
In 1999, Joel Chadabe (Chadabe 1999: 29) defined three types of computer-assisted performance: (a) the performer plays a part of another composer's work; (b) the performer is the composer and controls an algorithm in real time; and (c) the performer controls an algorithm in real time through improvisation, wherein there is often a feedback between the material generated by the computer and the performer. These distinctions also point to the information a score should define and transmit: what does the performer *play* and what must they *control*? And taking a step further, what kind of a rehearsal setup enables the performer to best adapt and adopt that control while playing? I would add that there are also different categories of interactivity that influence how a performer will conceive of and rehearse their part. The interaction can be on the level of sound itself, in the case of an augmentation/processing of the sound of an instrument, where the performer has varying degrees of control of the augmentation through direct and indirect means. Obviously, the more augmented the instrument, the more time the performer will need in learning to manipulate what is essentially a different instrument or sounding object. However, pieces for augmented instruments are very often written for specific performers with bespoke instruments, and thus documenting the original performer and the performance practice they develop for the work is essential. For performers unused to augmentations, the hazards of using an external controller should not be underestimated: a switch played by a foot can be tricky for a violinist accustomed to focusing on their hands. Interaction can also exist on the level of the sound material to be played, in the case of dynamically generated scores or forms. In these kinds of pieces, it is not the instrumental technique that requires further definition, it is the rules of play, which are often different than those involving other human performers, since the computations and transformations are of a different order and speed. Often, the performer is required to exercise another kind of control or perhaps become accustomed to the lack of it. An interesting example of this are the recent works of Sandeep Baghwati (Baghwati 2008 & 2011), in which he explores different kinds of score generation and feedback systems, where aspects of the form and the content of the piece are created in real time. He writes:

> Analog interactions require constant creative and regulatory feedback between participants. This means that no single agent can have a detailed overview of the temporal evolution of the work, that this evolution must emerge from the interactions – thus, any conventional fully written out score will be too confining. Likewise there can be no conventional conductor – the conductor must take part in the creative process. In fact, to some degree all musicians must be co-creators of the work. (Bhagwati 2008a: 4)

Regardless of the nature of interactivity, the performer will need to have access to a minimum of equipment in order to become adept at their part. A lo-fi version of the piece already proves very useful for rehearsal purposes – just like that piano reduction. Finally, even when a certain level of expertise and equipment is assumed, there should still be clear instructions on the calibration of the performer's hardware (microphones, controllers).

Fidelity in concert: improving performance scores

I consider most existing scores of music for instruments and electronics as performance scores, in the prescriptive tradition, and therefore this type needs little definition here. However, I would suggest that the often-overlooked step of calibrating the hardware (for a good discussion see Kimura 2003), the software and the space can also be integrated in a performance score, as in Hans Tutschku's *Irrgärten* (Tutschku 2010). This work, though limited in its use of live processing, does have some very practical features – both for rehearsal and performance – all housed within a downloadable app to use on the iPhone/iPod. Along with the actual playback, the app has a loudspeaker test to ensure the correct channels are connected to the corresponding speakers, a soundfile to test loudspeaker quality, a feature to adjust the tuning of the playback, should the piano not be tuned to A440Hz, and a function to adjust the iPhone's microphone threshold.



settings

loudspeakertest OFF

chromatic scale OFF

adjust tuning OFF

0.0010

adjust microphone trigger threshold OFF

very sensitive — less sensitive 0.5261

Figure 3. Hans Tutschku, IPhone interface for *Irrgärten*.

Although as Tutschku admits, the piece is intentionally limited to the use of "easy electronics," I find that the app's features would be worth integrating in performance scores for many works. In the same vein, alongside the schematics and tech sheets that are often (though surprisingly not consistently) provided with performance scores, there are very seldom instructions for anyone assisting or diffusing the electronics in the space. Considering that such assistance/performance is often part of the rehearsal process once in the performance space, it would make sense that the diffusion part would find its way into the performance score. While diffusion scores exist for acousmatic works, there are few scores with detailed instructions for the electronics, unless these are assigned to a performer (Blake 2011). Certainly not all works would need diffusion scores, but the paucity of examples is surprising.

Conclusion

Instructions for instrumentalists within interactive and media art with hybrid scoring techniques can benefit from hybrid and augmented formats. These can add content that was traditionally only transmitted orally about a work's background, genesis and performance practice. They can also provide different presentations that facilitate analysis, rehearsal and performance in different situations and contexts.

Bibliography

Bhagwati, Sandeep. 2008a. Composing through Shadows – Conceptual Layers in "Inside a Native Land" and "Vineland Stelae". Paper read at the conference "Faire Oeuvre – Transparence et Opacité" (Quebec City, May 2008) http://www.academia.edu/181051/Composing_through_Shadows_-_Conceptual_Layers_in_Inside_a _Native_Land_and_Vineland_Stelae_

Bhagwati, Sandeep. 2008b. Transience - matralab. http://matralab.hexagram.ca/projects/transience/.

Bhagwati, Sandeep. 2011. Alien Lands - matralab. http://matralab.hexagram.ca/projects/alien-lands/

Blake, Daniel. 2011. First Beginnings. http://issuu.com/dabla/docs/daniel_blake-_first_beginnings.

Carmichael, Laura. 2012. Personal interview. 13 May 2012.

Chadabe, Joel. 1999. The performer is us. *Contemporary Music Review: Live Electronics*. 18(3): 25-30.

Fabrice Fitch & Neil Heyde. 2006. 'Recercar' – The Collaborative Process as Invention. *Twentieth-Century Music.* 4(1): 71-95.

Hron, Terri. 2012. Exploring the Nexus of Collaboration, Notation and Meaning in Mixed Electroacoustic Music. *Proceedings of the Electroacoustic Music Studies Network Conference: Meaning and Meaningfulness in Electroacoustic Music.* Stockholm: EMS.

Hron, Terri 2013. Maly velky Svet. http://www.birdonawire.ca/Malý velký svět /.

Kimura, Mari. 2003. Creative process and performance practice of interactive computer music: a performer's tale. *Organised Sound*. 8(3): 289-296.

Mion, Philippe, Nattiez, Jean-Jacques, Thomas, Jean-Christophe (1982). *L'envers d'une œuvre. De Natura Sonorum de Bernard Parmegiani.* Paris: INA-GRM/Buchet-Chastel.

Roche, Heather. 2011. *Dialogue and Collaboration in the Creation of New Works for Clarinet*. Doctoral thesis, University of Huddersfield.

Tutschku, Hans. 2010. Irrgärten. http://www.tutschku.com/content/works-irrgaerten.en.php.

Wishart, Trevor. 1996. *On Sonic Art.* New York: Routledge Press.

Appendix C: Documentation

C.1 Malý velký svět Questionnaire

What does the word "performance" mean to you?
What does "creativity" mean to you?
How do you practice creativity in your musical activities?
What part of your musical process feels the most creative?
What is most important to you in performance?

What does "individuality" mean to you in the context of music?
Do you practice developing "individuality"?
What are currently some of the aspects of music that you are focusing on developing?
Do you feel you have a particular expertise?

How do you see the relationship between a performer and the score?
Do you feel that more contemporary scores are different? How?
What are some of your main questions when you approach a contemporary music score?
How do you deal with questions that you have about the score?
If a composer is still alive, would you contact him or her to answer questions?
What has your experience of working with composers been?

Do you have any past experience as a collaborator?
Can you describe your experience?
What were the most stimulating aspects of the process for you?
What did you find difficult about the process?
How do you feel about a description of creative collaboration as a process whereby individuals come together to share their particular expertise in the creation of a work?
If a work was to be written for you, what kinds of things would you like to see in it?
Pretend you could choose music the way you can choose a style of clothing, what would you say suits you best, what do you feel most comfortable in?
How do you feel about being faced with things you don't like?
What are the different ways people communicate in music situations?

Do you feel that roles are mostly predetermined? How?
When you are in collaborative situations, how does that affect communication?
Do you have communication habits?
Do you think it's worthwhile to talk about how to communicate?
Do you like to take decisions for a group? Is it easier when you've been asked to do so?
How would you ideally resolve a conflict where you don't agree with a decision that someone has made?
Is this different when you face someone's discomfort with your own decisions?
Would you be interested in trying out different ways and timings to talk about process and the evaluation of a work?
Would this be easier if there were guidelines?

C.2: Transcriptions of Media Examples

Media 4: Katherine Dowling & Terri Hron

What is the most important thing for you in performance?

Katherine Dowling: Integrity, hands down, for me. I used to think that performing and being onstage was about the self, about me and my personality and my ideas, but more and more I feel that it has nothing to do with me at all, and by the time I'm on stage, as the performer I'm the vehicle for everything else to go through...

Our hearts beat differently, our bodies are built differently, my sonic palette and my imagination is different from everybody else's, so as a vessel for the score, two people could be as equally committed to the integrity of the composer and have wildly divergent performances of the same piece and they would both be with the utmost integrity.

What are your specialties?

KD: Well I really try for a range in soft playing. I think for whatever reason loud playing often takes care of itself because what you're doing technically to create the full sound is there already whereas it's easy for all soft playing to sound delicate. So a range of timbre within soft passages, quiet passages, is something that I try to have a variety in at my fingertips in case I want to use it.

If something is not melody and accompaniment, it tends to be way easier for me. I like to make ugly sound, not stereotypically beautiful, like singing line. I mean, I appreciate that but it's really difficult for me and for whatever reason it comes more naturally for me to produce a more jarring sounds or more sort of like a death rattle, rather than something delicate and pretty.

Thoughts on collaboration

KD: The most surprising thing, always, is I'll have some specific question, "What do you want here?" and they'll say, "Oh, I don't know, what do you think?" And it's probably only one time, I worked with a composer who wasn't at least open to the possibility of feedback. And not just in terms of, "it's easier if I took that note with the left hand," but in terms of phrasing, or pacing, or dynamics even. Most of the composer's I've worked with, even if the piece is finished, or it has been performed before, they actually kind of solicit performer feedback.

It's extremely inspiring, and I don't mean that in a "it helps my mood" kind of way, but literally inspiring, because you can see and hear right up close the way someone else imagines something... Just like we don't have words to explain in language, like English for example, what we mean musically.

Most effective for me is just demonstrating, because then you don't have to rely on words so much, because that's when you get into assumptions, "Oh when I mean this, so she must know what I mean." There's less to assume when you say, "Oh I imagine this" [gestures as if playing], and you can demonstrate it.

Thoughts on Malý velký svět

KD: It will be extremely illuminating. I think that one of the things that will be awesome about this project is that we will have the luxury of time to be able to do that, and I think that most collaborations suffer from a lack of time. Two years of working with someone, you start to get each other, or after a performance, when you feel like, OK, we did it, now we can have a drink and bitch about all the things we didn't like about our process, and that's often a function of time.

Media 6: Luciane Cardassi, Rosabel Choi, Katherine Dowling & Terri Hron

Terri: You'll all be beautiful.

Luciane: Where do I sit?

Terri: You can sit here. I have arranged it so you can sit there or there, it's not a problem...

Luciane: It's not a problem?

Terri: I do not want this (points at the camera) to be intrusive. I want to forget about it myself. I'm just really happy when I remember to do it. (laughs) But I figure, I'd never want to go through all of this again if I had all of it, so if I only remember sometimes, it will be just enough... to stop me from becoming insane.

Luciane: So good to see you!

Rosi: Here, can I give you a hug?

...

Terri: So, I'm going to make this very practical, because we need to be practical, I think. I thought I would tell you what I envisage at this point to be what we'll do next Thursday [performance] ... with the idea that all of this is just workshop material. If it turns out that some of these bits can later turn into entire pieces for some other instrumentation, so be it, and if not, it will be a great way to collect sound, to establish, what the piece is about, and how it sounds, so that when we tackle the version with just electronics, and integrating the films, that we'll all already know the piece.

And I say we because, like what I did this morning with Luciane, I have parts of the piece, as well as material, but what I don't have is what you guys are going to be doing, so what we're doing in these first sessions, hopefully till Monday – yeah hopefully Monday will be the last day of that! – (laughs) we're kind of establishing the sound of the piece, so we go through, section by section of what I have, and we try things out.

(looks at Luciane) Is that how you experienced it today?

Luciane: and yesterday, yeah!

Terri: and did you feel comfortable with that, in your level of input, that you were guided enough?

Luciane: no I felt very good!

Terri: good!

Luciane: yeah, I had a great time!

Media 7: Mathisha Panagoda & Terri Hron

Terri Hron: Maybe at a tempo where the beginning can have a slightly different sound than the end, you know, because when you play it too short, then all you get...

Mathisha Panagoda: Yeah, okay... So more front to the note...

TH: Yeah... kind of an ugly beginning.

MP: Kind of heavy?

TH: Yeah heavy.

MP: Cool.

Media 14: Luciane Cardassi & Terri Hron

Luciane Cardassi: I think there's some very nice gestures there that I would love to keep, depending on what you think about that. So a couple of them that I really like: the heart rhythm, that comes from a different movement, or from the electronics part?

Terri Hron: It comes probably from Beauty and the Beast?

LC: Oh right!

TH: Probably, no?

LC: Not in this piece, though. I can't recall.

TH: Or maybe it's just something that I invented? It's possible.

LC: Because I brought it from, I thought it was somewhere in the electronics in this piece, I can't recall now, it doesn't matter, but I think it goes very well with the last movement of this piece. I don't know what you think about that, but that's one gesture that I like, with the muted strings, no actually I was doing it with the mallet on the bass notes, soft and slow and then speeding up... Maybe even AhojAhoj?

TH: AhojAhoj

LC: It was AhojAhoj [in fact, it was a gesture TH wrote in the first THE PANTHER score, which LC was no longer using]. So the heart. And then, some gestures with muted strings. Actually in this movement I never play, in this piece I never play

TH: the keyboard.

LC: the keyboard, right? Or when I play, I'm muting the strings. But most of the time I'm inside the strings. So anyways, I like the heart, I like the muted notes, especially in the lower register. In this case, playing with Ronelle I was also trying to interact with the pizzicato that she does, so I was doing a pizzicato and muting the string immediately after, which I liked, I thought it was an interesting conversation with her. And of course the bars, that were used in several movements, you had mallets on the bars. I also used the metal ring, what is it called?

TH: The slide

LC: Yes, the slide, thank you. I tried using the slide also, as bringing some of the techniques from other movements.

TH: It would be great if something happened with the slide, definitely.

LC: So those are some of the gestures that I liked, from the previous movements and the electronics. I also like the interaction that I have with the electronics, maybe we could explore it more, how it's my voice there and it's my voice live, and the sounds that I'm expanding at some points or make it short here or there. So these are some of the gestures that I have thought about, that kind of reinforce my...

TH: OK, I think that yeah, for the voice, I think it would be great if we could record you improvising in some way, or in a number of ways with that song that you were singing, because you had extracted certain sounds which I had also extracted, like the "ch." So something like an improvisation on "ch" could be in one section.

What I'm looking for is that we, from our memories of these moments that happened, extract a vocabulary to build this piece with, because what I hear on the tape, on the recording, is that it's far too full. There's sound all the time, on the tape, and I want to make it much more articulated, so that it's much more about the performer more solo.

LC: Oh I see, so you're going to change the electronics for that.

TH: Yes. But it's all going to be built with the electronics that's there.

LC: Because my feeling of the piano playing in this section that we just heard is that it was too much, too continuous, and switching too much. Almost like I was experimenting with different elements. And I was! And at the same time I was trying to interact with the electronics and with Ronelle, and at some points I was trying to create a dialogue with her, but throughout the piece I was listening for ideas from the electronics, and it was a bit too much.

TH: Well, I think that was mainly my fault. Because in a space, that works much better than on a recording, because the space absorbs something, but it shows that in that piece I hadn't had time to edit it yet. So it's too full of stuff, that's just how it is. Things that I write get sparser as I edit them, and often things are left with too much garbage, but it's just that it takes so much time, right? to go through that process every time. So that I can do now.

What I want is that the electronics are just like a lattice-work. We now have a texture, and we're going to punch all kinds of holes in it that will support a form that we're going to create with these techniques, which we've developed based on this whole long experience of this piece.

LC: Yeah, and the other ones too.

TH: It really extends all the way down to

LC: Quite a few years now

TH: I feel like it extends down to when I heard you play ...sofferte... with Darren.

LC: Oh I see. And you wrote undressing a past one year later.

TH: After that, yes.

TH: Anyhow, so I was thinking for the score, I don't know if you could... you mentioned four things? Did you just mention four things?

LC: Well, I wrote, like, twenty, but... the singing, the heart rhythm, the muted sounds on the low register, or middle register, actually.

TH: Muted sounds...

LC: Muted with the hand, and the heart rhythm with the mallet, singing: some sounds like "sasasasa, sh" and other, and pizzicato on the strings with muting right after, and also the metal ring, the slider.

NEXT SCENE

LC: Then the voice; and with the voice I thought of using some of the vowels from the song that is on the tape, and exploring mostly the "a," maybe a little bit of the "i," but the "ch" and the "ka." And then I thought, "How can I do two things at the same time?" You know, explore those gestures and maybe doing some movements inside the piano as well, percussive gestures. So I thought of something that could maybe start with [PLAYS/SINGS].

So a little bit of an exploration of what I can do with the voice, as well as some percussive sounds that I think would be really cool; if I had a vocal sound, a vocal gesture happening, always with the same element, and then they start to get all messed up. Or creating some different rhythms. I didn't have time to explore too many possibilities there, but I tried to show a little bit of always associating the "ch" with a particular gesture and the "ka" with a particular percussive sound, and then trying to play with different rhythms or not having one of those elements present, like the voice stops, and that percussive gesture is there, or vice versa.

TH: Do you think that you could give me three short phrases where you use these tactics, just make different choices?

Media 15. Bob Gilmore & Elisabeth Smalt

Bob Gilmore: But what I'm saying is that the example we started with, which was me talking about the Swedish guitarist Stefan Östersjö working with this composer in London, and the composer in London does the score, and the guitarist says, "Yeah, I can do that, that's a bit difficult, this is so forth, and so on," that's the old-fashioned model, as far as I'm concerned. That's no different than Brahms and Joachim, but to me this is not collaboration.

Elisabeth Smalt: But in a collaboration, would you have the two names then?

BG: No, the pieces go out, no one says, "Brahms' Violin Concerto with editions/additions by Joachim"

ES: No, that's indeed true.

BG: Or, this piece goes out by David Gordon. I mean, Stefan Östersjö might get thanks in the sort of preface to the score, if there is one, but that's about it, he'll just get forgotten about, the way most performers have gotten forgotten about. Until recently, because now we're much more aware of the role performers played in stuff like that. So now we know about Joachim's input in Brahms' violin concerto but fifty years ago nobody gave a shit if some guy helped Brahms a bit but that's just normal.

Media 16. Rosabel Choi

Rosabel Choi: Look through the score, and figure out what the intention was, what the result should be like, and go from there, so it's very much in the middle of the process. It's something I study a great deal in order to be able to throw it away.

Media 17. Rosabel Choi

Rosabel Choi: I also really like playing with a player who's based in jazz, like Jake. I feel his style of listening is so different from a classical musician and it's really inspiring for me to play with someone who has that level of listening, and I experienced that even when I was playing your piece with Jake and Adam because they listen so intently. I hadn't experienced that before.

Media 19. Luciane Cardassi

Luciane Cardassi: I think there is a chance that some composers pay more attention to transferring a meaning to their composition or what they really want with that composition, while for other composers, there is less of a careful interest. I'm not sure I'm making myself clear. I think there's always a meaning, there's always a meaning for people to do what they do, even if they're not aware of [it]. I really think they're transferring something to sounds even if they're trying not to. But I think that for some composers, it's more important or essential for their work, to think about that. I think it's about the thinking. I like to know, for example, when I'm playing, I like to know why those things, I mean not only the notation, obviously, I like to know what we want with this project.

Media 20. Bob Gilmore, Elisabeth Smalt & Terri Hron

Bob Gilmore: OK so this is an interview with Bob Gilmore [everyone laughs] Should I say it all again [laughs]
Elisabeth Smalt: First, Terri says the title and then you said,
Terri Hron: No no no, we don't have to go through all of that. I'll explain later. [laughs] But, you were talking about... defining the word collaboration,
BG: yes
TH: because you felt... Lemme, let me paraphrase until
BG: OK
TH: where you got to,
BG: yeah
TH: and then you can go from there...
BG: yeah, fine fine
TH: how about that,

BG: yes good
TH: mmm so...The nineteenth-century model of sending the score to someone
BG: mm-hmm
TH: and then having a deep heart to heart... about what is about to happen,
BG: mm-hmm
TH: which is the transmission
BG: mm-hmm
TH: of that piece from one brain to another
BG: mm-hmm
TH: and also, the incredible investment that a performer goes through to learn a score,
BG: yeah,
TH: the time that they spend in order to learn the score which is, you know... considerable, possibly longer than it took for to write the piece, which is really cool.
BG: yeah,
TH: And I don't take that commitment lightly...
BG: No indeed.
ES: No.
TH: So, going from that model, that just acknowledges that there is a composer and that there is a performer and at some point there was a cross-over in which some important information was... exchanged
BG: mm-hmm
TH: That that's not, the kind of collaboration that we're talking about
BG: Right

AhojAhoj (for Marie Hron)

for Luciane Cardassi, amplified piano and stereo soundtrack.

Terri Hron
2011

Program note:

AhojAhoj is written for Luciane Cardassi. My first experience of her playing was a recital of works for piano and fixed media, and I was immediately struck by how precise her sense of synchronicity with the “tape” was. So, when she asked me to write her a piece with a soundtrack, I wanted to take full advantage of her ability to make prescribed coincidences sound natural and unexpected.

AhojAhoj is part of a cycle of works relating to my family history. The voices on the soundtrack are taken from cassettes sent to my parents by their parents, living across the world, behind the wall of the totalitarian regime in Czechoslovakia in the 1970s. The excerpts are all hellos and goodbyes, openings and closings. All the harmonic material comes from analyses of these voices and the resonances heard on the soundtrack are the sound of those voices being played into the piano with the dampers up. The other sounds on the tape come from a recording of a tape deck, the machine which allowed these exchanges to occur.

This piece is for Luciane. It is also dedicated to my mother Marie.

Notes about the score:

The score shows both the piano part and describes what is heard on the soundtrack. The latter is divided into three layers: voices, articulations and resonances. Not every sound is notated, but all coincidences and cues can be found.

There are four soundfiles that make up the soundtrack. The pianist must cue the beginning of each of them.

The stopwatch times are for rehearsal purposes, so as to show how the score lines up with the soundtrack. In performance, the pianist should rely on the sounds heard on the soundtrack for timing. When an event in the piano part is connected to something in the soundtrack with an arrow, these should be synchronous. When there is no arrow, the timing is up to the performer.

The piano should be amplified and the live sound mixed with the soundtrack.

Piano Notation:

Tempo: when specific rhythms are written, these should be played at ♩=60. The same is true of rhythms in the soundtrack.

Accidentals: these are valid only for the note to which they are attached, with the exception of repeated notes, where the accidental is kept unless cancelled.

There are a number of noteheads that correspond to various playing techniques, shown below. There are also a number of places where the inside of the piano must be played with (a) coin(s), shown on the right.

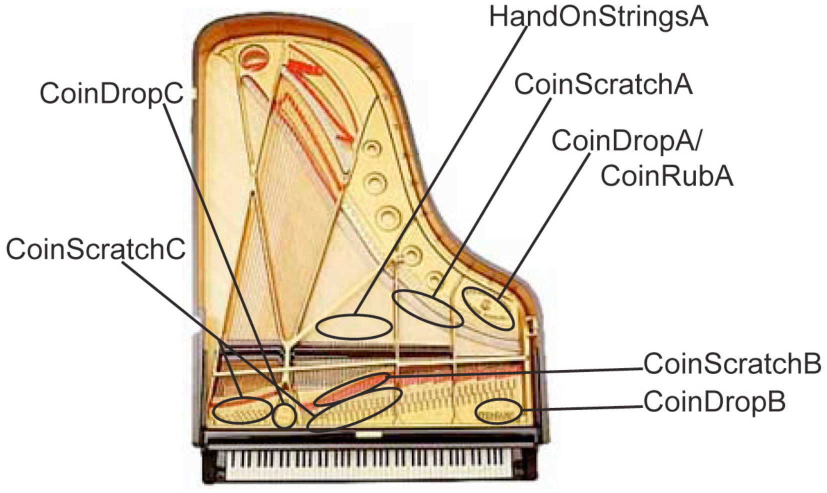
× = pluck with finger or nail

◣ = scratch with coin

◆ = knock with knuckles

□ = depress key soundlessly and hold

◇ = sounding harmonic pitch (finger on string shown)

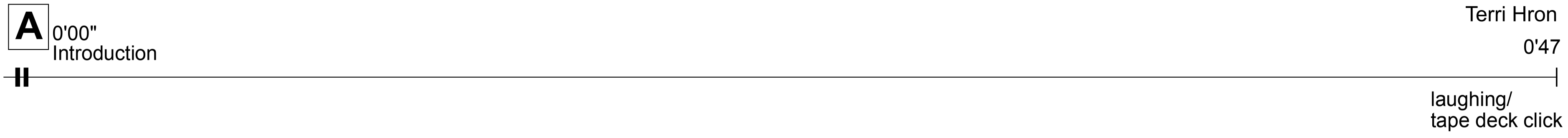

HandOnStringsA
CoinScratchA
CoinDropA/
CoinRubA
CoinDropC
CoinScratchC
CoinScratchB
CoinDropB

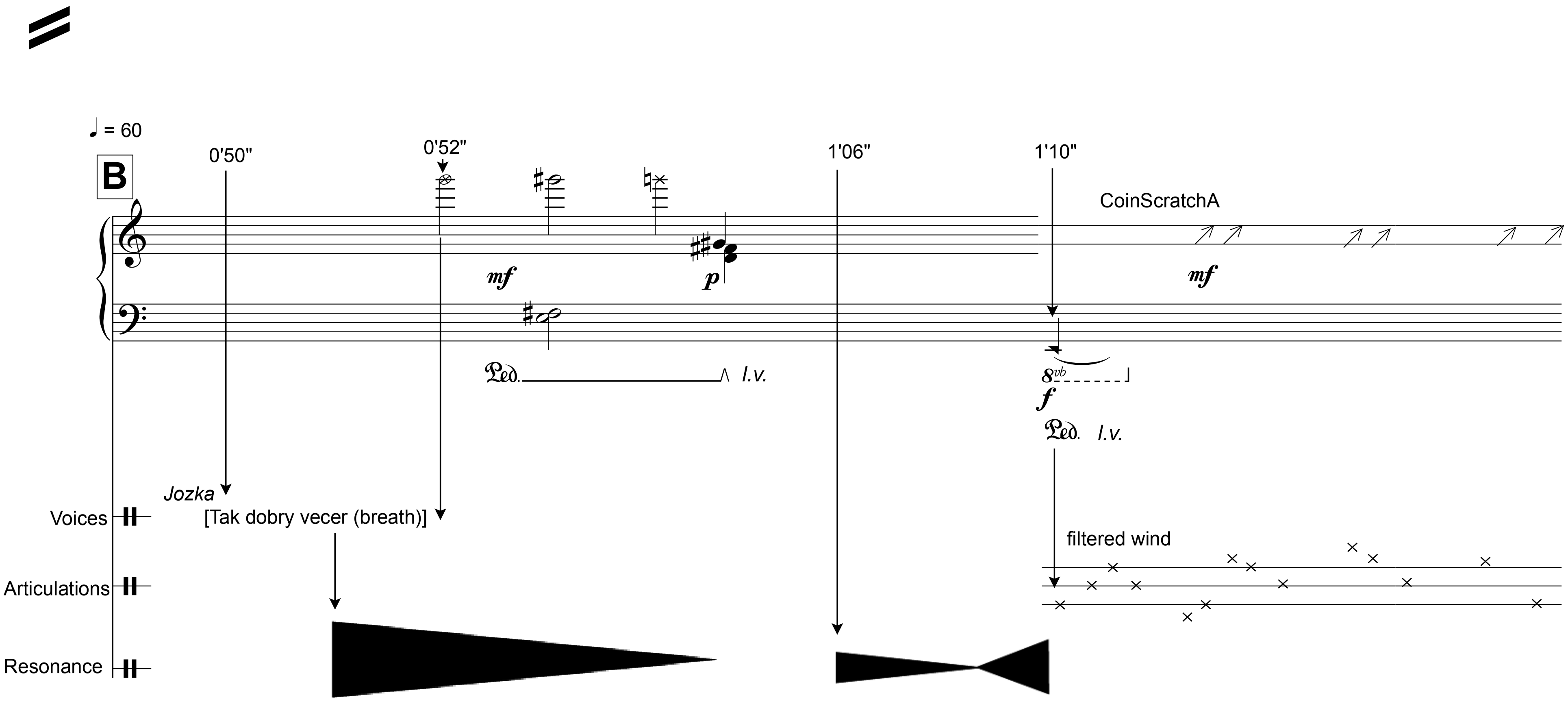
AhojAhoj

mamince

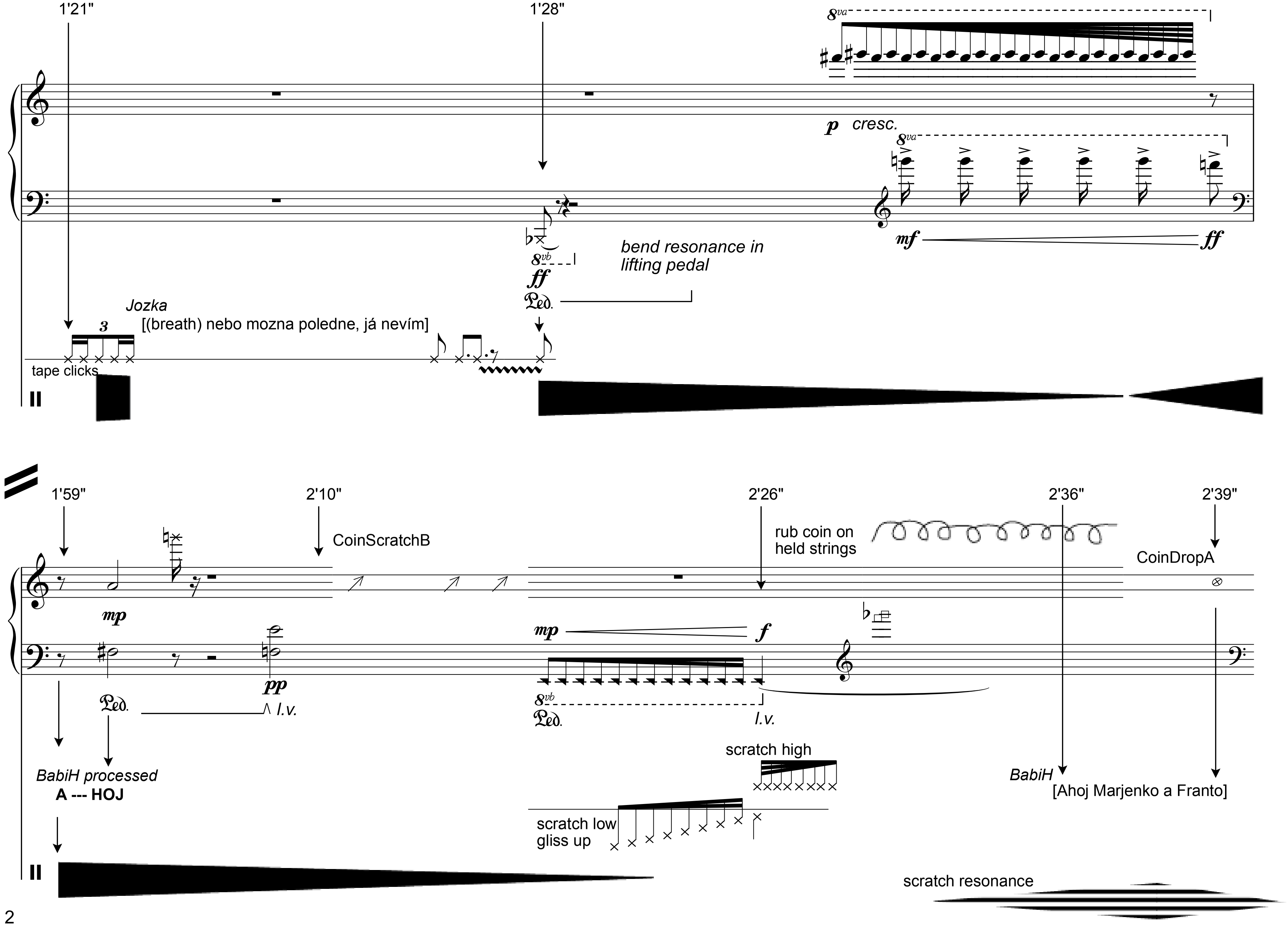
For Luciane Cardassi, with love and admiration always

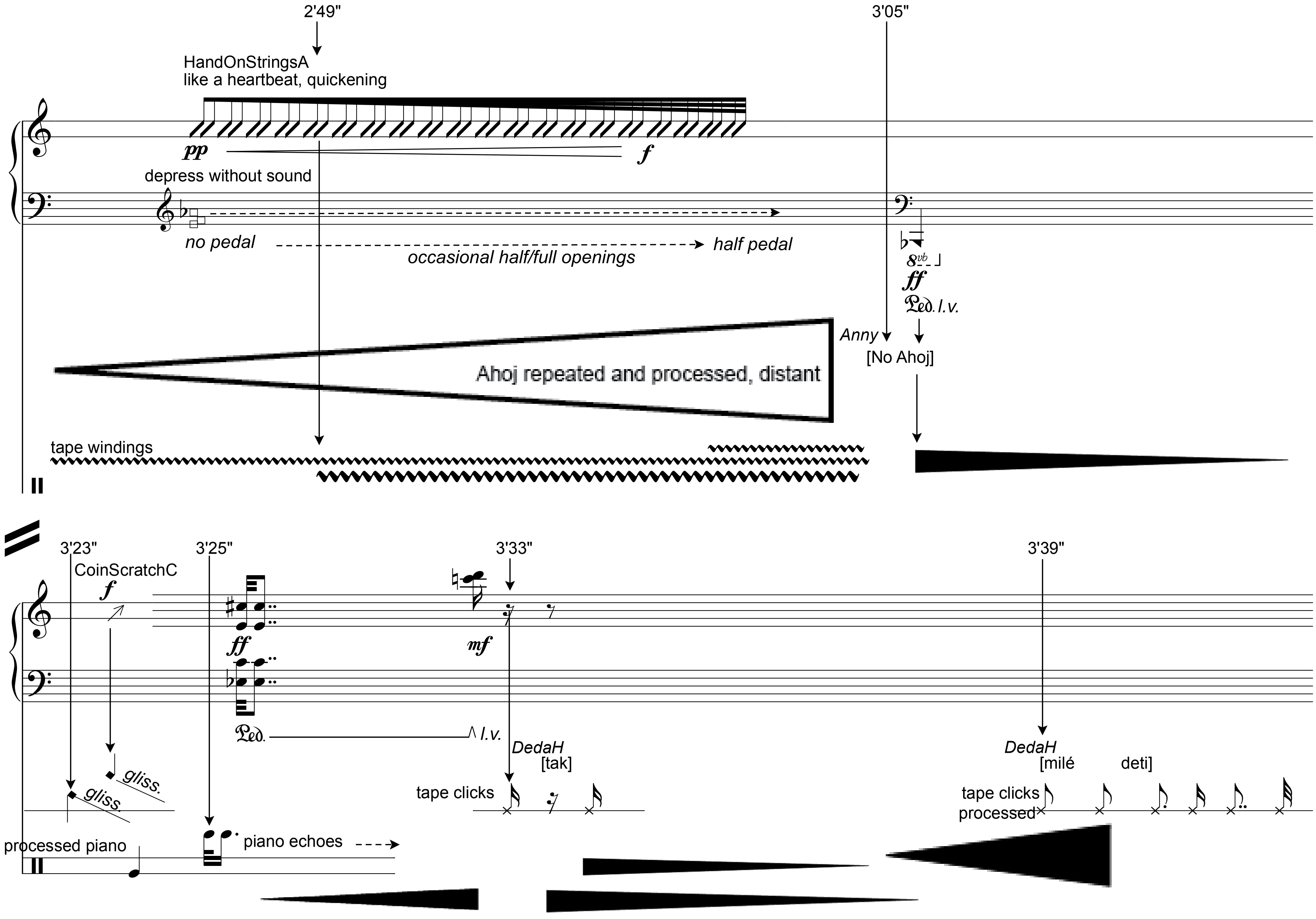
Terri Hron

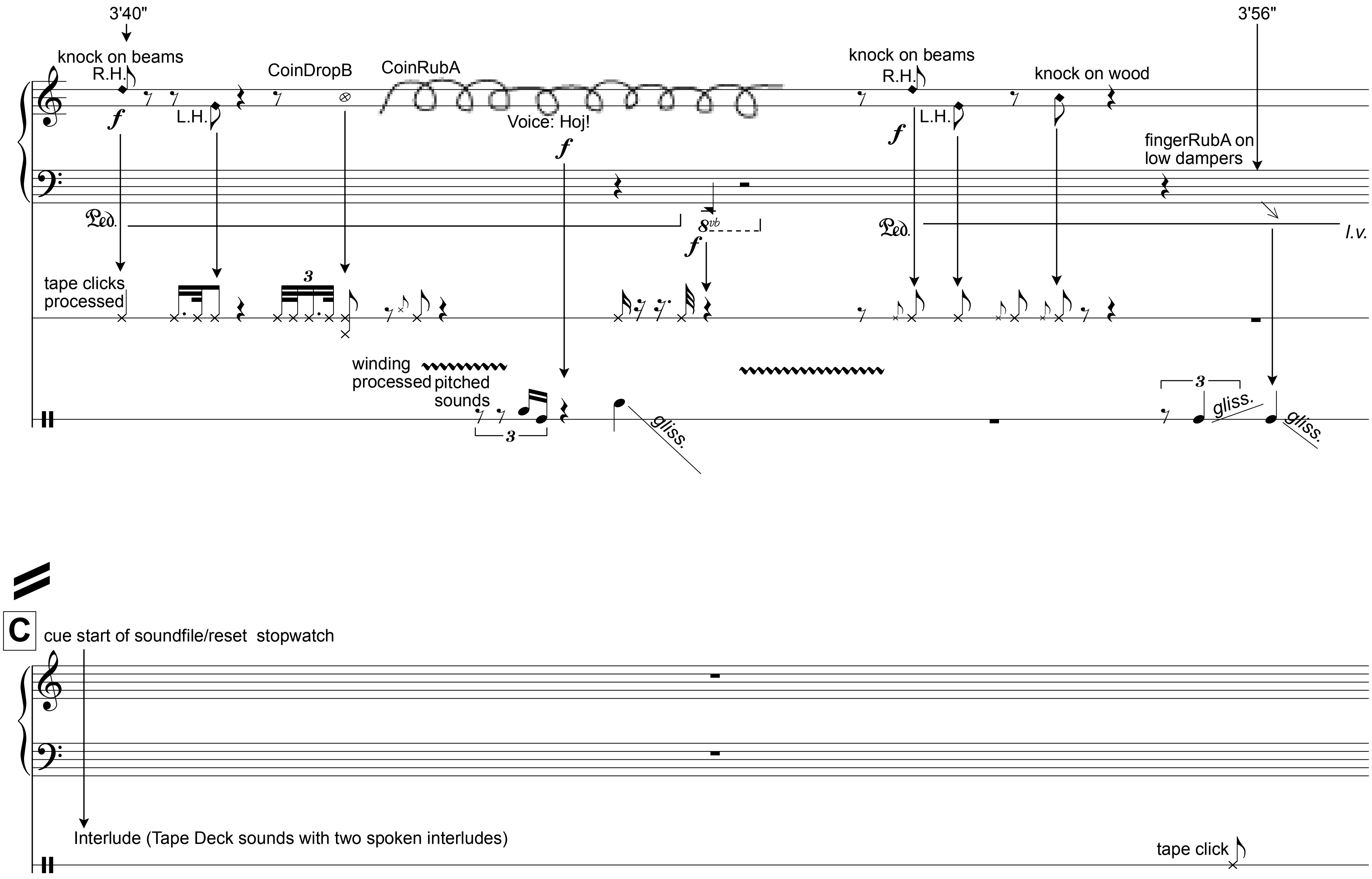

A
0'00"
Introduction
0'47
laughing/
tape deck click

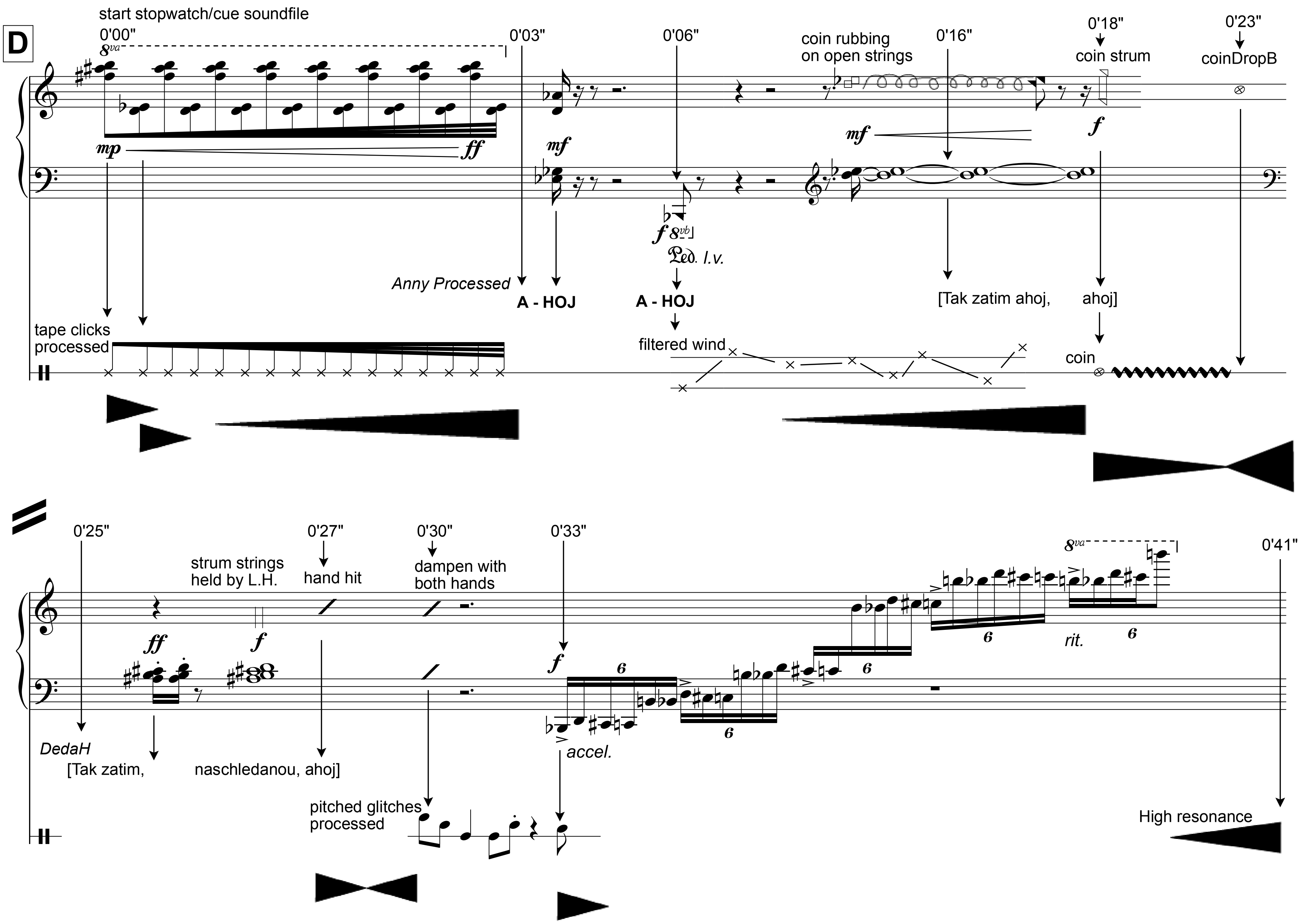

♩ = 60
B
0'50"
0'52"
1'06"
1'10"
CoinScratchA
mf
p
mf
Ped.
l.v.
8vb
f
Ped.
l.v.
Jozka
[Tak dobry vecer (breath)]
filtered wind
Voices
Articulations
Resonance

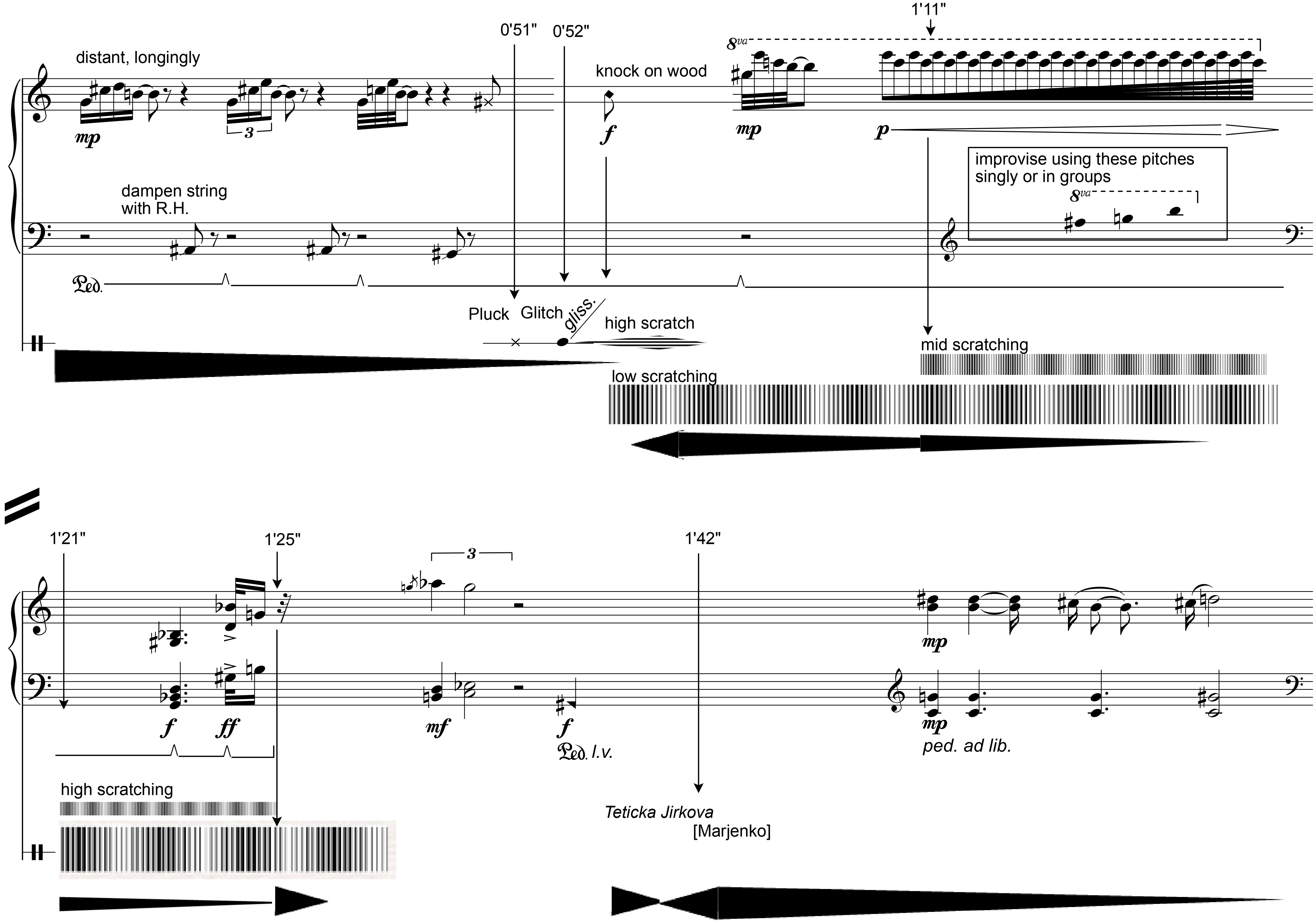
Copyright 2011 © Terri Hron

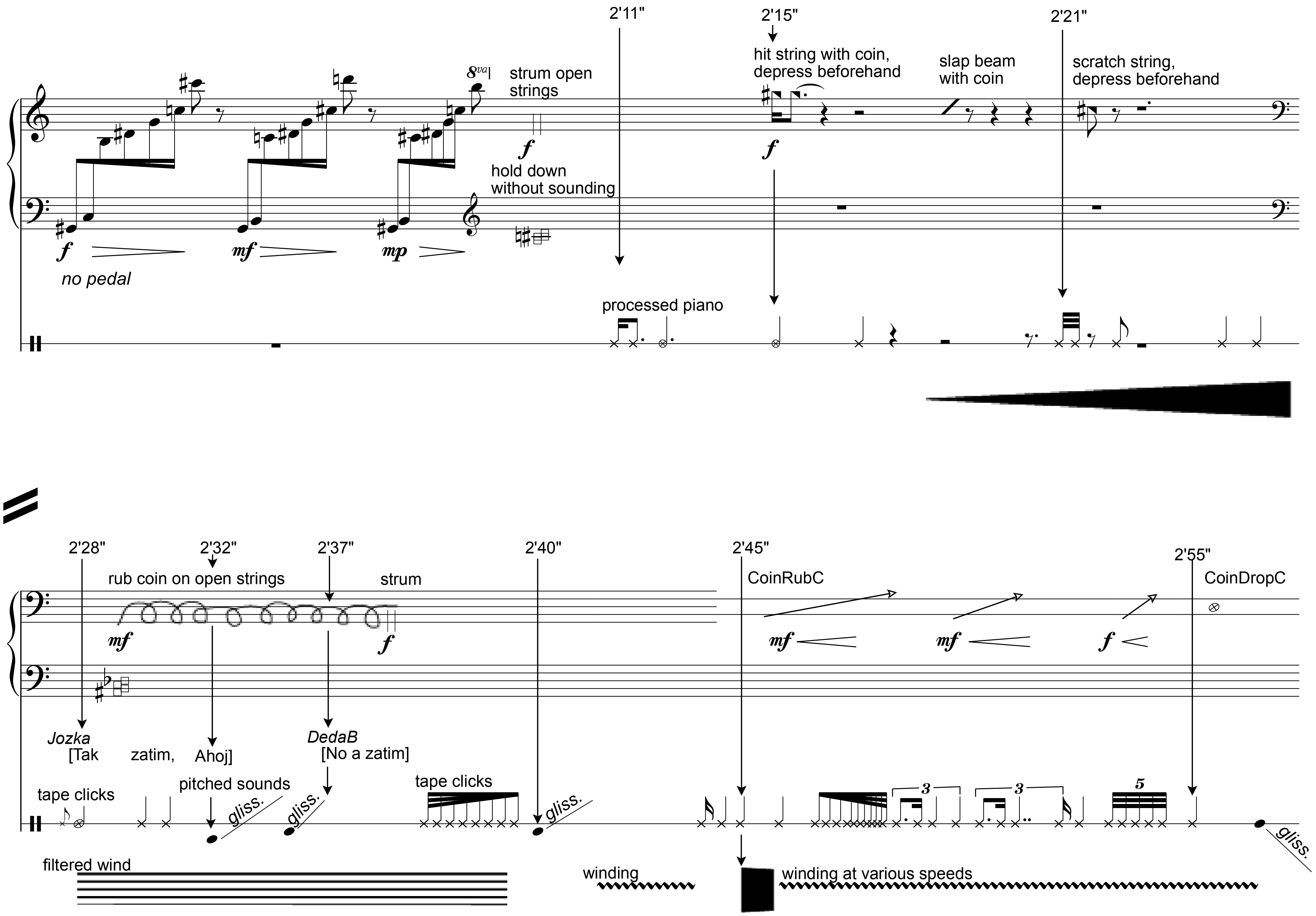

1'21"
1'28"
8va
p cresc.
8va
mf
ff
8vb
ff
bend resonance in
lifting pedal
Jozka
[(breath) nebo mozna poledne, já nevím]
3
tape clicks
1'59"
2'10"
2'26"
2'36"
2'39"
CoinScratchB
rub coin on
held strings
CoinDropA
mp
mp
f
pp
l.v.
8vb
l.v.
BabiH processed
A --- HOJ
scratch high
scratch low
gliss up
BabiH
[Ahoj Marjenko a Franto]
scratch resonance

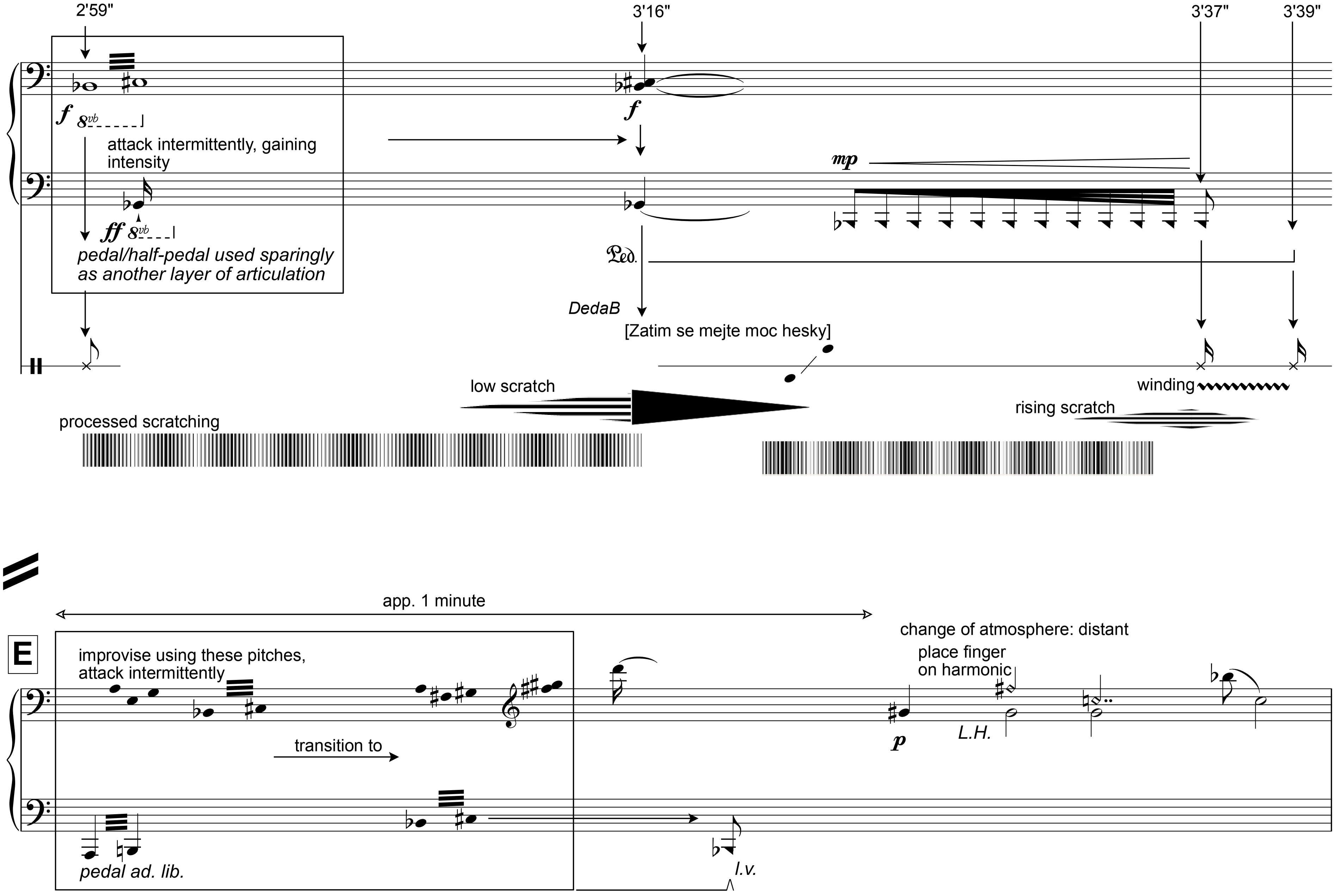

2'49"
HandOnStringsA
like a heartbeat, quickening
pp
f
depress without sound
no pedal
occasional half/full openings
half pedal
3'05"
8vb
ff
Ped. l.v.
Anny
[No Ahoj]
Ahoj repeated and processed, distant
tape windings
3'23"
CoinScratchC
f
gliss.
gliss.
3'25"
ff
Ped.
l.v.
3'33"
mf
DedaH
[tak]
tape clicks
3'39"
DedaH
[milé
deti]
tape clicks
processed
processed piano
piano echoes

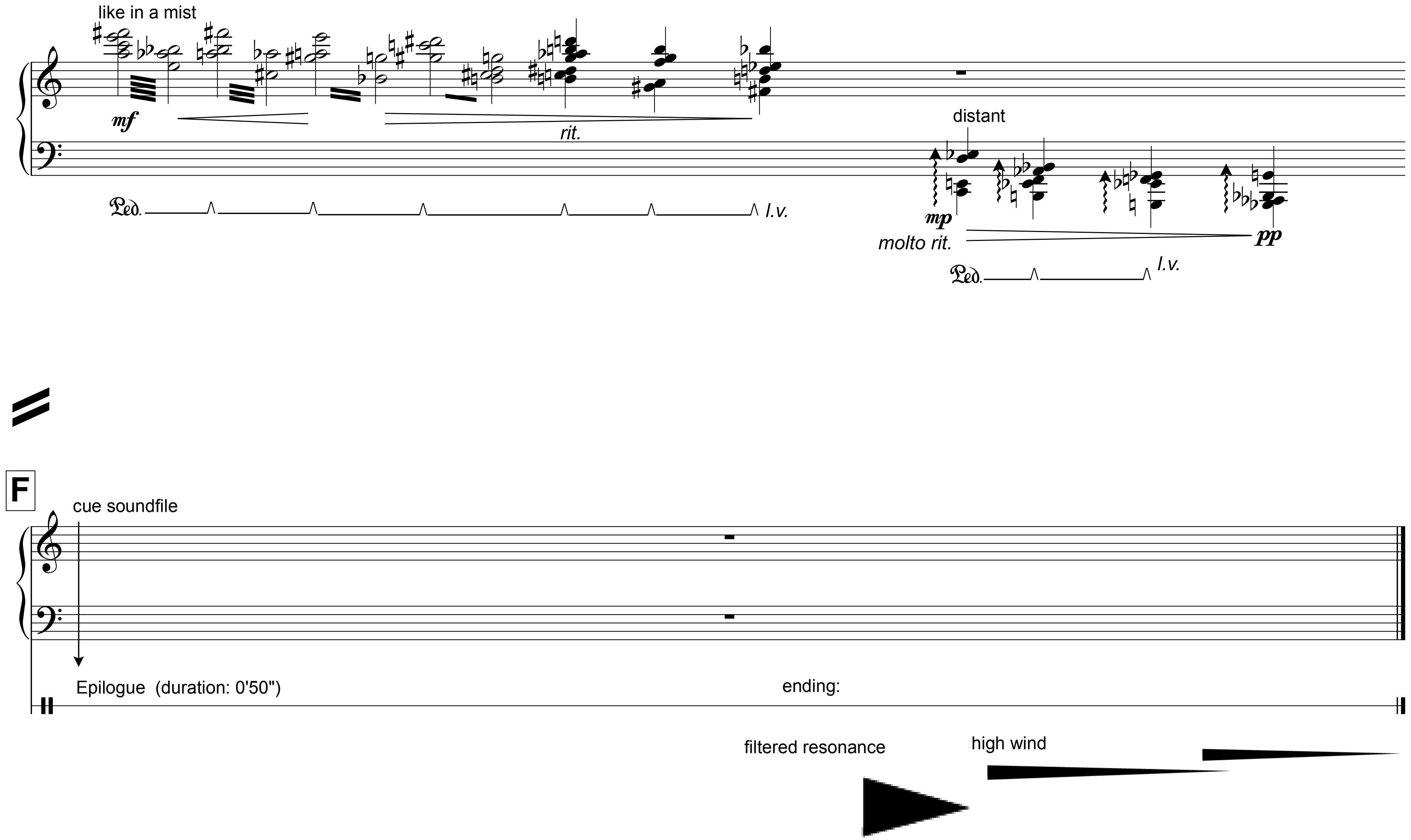

3'40"
knock on beams
R.H.
L.H.
CoinDropB
CoinRubA
Voice: Hoj!
knock on beams
R.H.
L.H.
knock on wood
3'56"
fingerRubA on
low dampers
Ped.
8vb
Ped.
l.v.
tape clicks
processed
3
winding
processed pitched
sounds
3
gliss.
3
gliss.
gliss.
C
cue start of soundfile/reset stopwatch
Interlude (Tape Deck sounds with two spoken interludes)
tape click

D
start stopwatch/cue soundfile
0'00"
8va
mp
ff
0'03"
mf
Anny Processed
A - HOJ
0'06"
f 8vb
Ped. l.v.
A - HOJ
filtered wind
coin rubbing
on open strings
0'16"
mf
[Tak zatim ahoj,
0'18"
coin strum
f
ahoj]
coin
0'23"
coinDropB
tape clicks
processed
0'25"
ff
DedaH
[Tak zatim,
strum strings
held by L.H.
f
0'27"
hand hit
naschledanou, ahoj]
0'30"
dampen with
both hands
pitched glitches
processed
0'33"
f
6
accel.
6
6
6
rit.
8va
6
0'41"
High resonance


0'51"
0'52"
1'11"
distant, longingly
mp
3
knock on wood
f
8va
mp
p
dampen string
with R.H.
improvise using these pitches
singly or in groups
8va
Ped.
Pluck
Glitch
gliss.
high scratch
mid scratching
low scratching
1'21"
1'25"
1'42"
3
mp
f
ff
mf
f
mp
Ped. l.v.
ped. ad lib.
high scratching
Teticka Jirkova
[Marjenko]


2'11"
2'15"
hit string with coin, depress beforehand
slap beam with coin
2'21"
scratch string, depress beforehand
8va
strum open strings
hold down without sounding
f
mf
mp
no pedal
processed piano
2'28"
2'32"
2'37"
2'40"
2'45"
2'55"
rub coin on open strings
strum
mf
f
CoinRubC
CoinDropC
mf
mf
f
Jozka
[Tak zatim, Ahoj]
DedaB
[No a zatim]
tape clicks
pitched sounds
gliss.
gliss.
tape clicks
gliss.
3
3
5
gliss.
filtered wind
winding
winding at various speeds


2'59"
3'16"
3'37"
3'39"
f
8vb
attack intermittently, gaining intensity
ff
8vb
pedal/half-pedal used sparingly as another layer of articulation
f
mp
Ped.
DedaB
[Zatim se mejte moc hesky]
low scratch
winding
rising scratch
processed scratching
app. 1 minute
E
improvise using these pitches, attack intermittently
transition to
pedal ad. lib.
change of atmosphere: distant
place finger on harmonic
p
L.H.
l.v.


like in a mist
mf
rit.
Ped.
l.v.
distant
mp
molto rit.
pp
Ped.
l.v.
F
cue soundfile
Epilogue (duration: 0'50")
ending:
filtered resonance
high wind

Love Song for MAD

for violin and electronics

Terri Hron

2013

dedicated to Madelaine

written for Andréa Tyniec

« Savoir, autre savoir, pas savoir, pour renseignement, savoir, pour devenir musicienne de la vérité » Henri Michaux

« J'aime mon travail d'un amour frénétique et perverti, comme un ascète le silice qui lui gratte le ventre » Gustave Flaubert

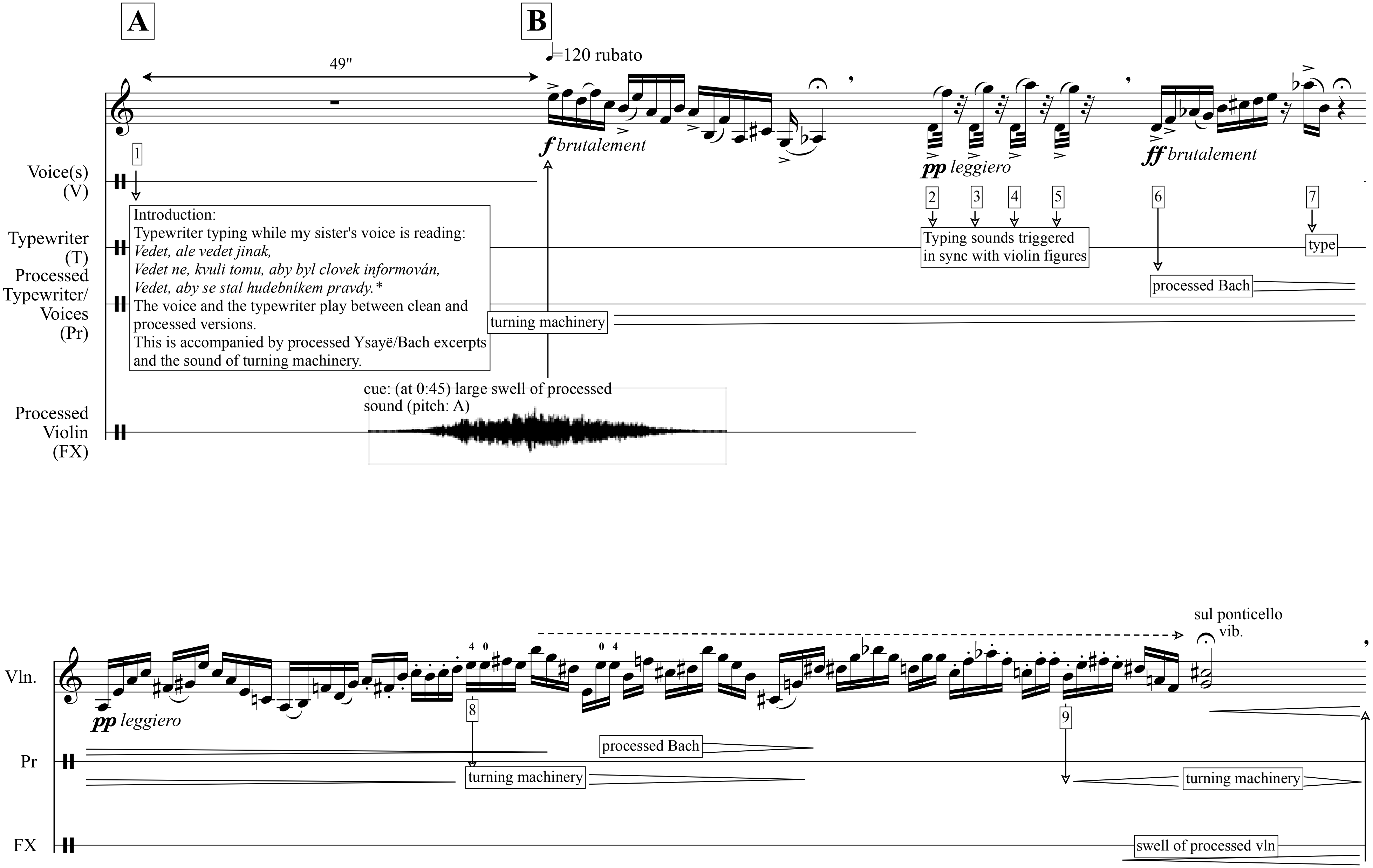
A Love Song for M.A.D. (20') for violin and electronics is written for Andréa Tyniec. In the writing of this piece, I asked Andréa to give me a piece that she loved to work with: the Ysaye Sonata Op. 27 No.2. It inspires each movement of this work and transformed excerpts of it appear, transformed in various ways. The other sounds featured in the work are a recording of my sister as a toddler that my mother had sent on cassette to her parents, the sound of a typewriter, and the sound of my own and my sister's voice reading translations of Henri Michaux and Gustave Flaubert that my grandfather had published. This work is dedicated to my sister, Madelaine.

Technical notes:

The electronics consists of a series of samples that correspond to the cues marked in the score. These samples are quadraphonic, split into two stereo (Front and Back) groups. The beginning of a cue does not necessarily mean the end of the previous one, therefore the performance setup should allow each sample should play until its conclusion, regardless of what comes next.

The violin should be amplified using a high-quality cardioid microphone (e.g. DPA 4088) attached to the performer's head, close to the ear next to the instrument, or on the instrument itself. The electronics performer should adjust the volume of the microphone to ensure a balance between the electronics and the instrument, raising the volume where necessary (ii. seemingly romantic). The ideal balance is one where the live violin sound is not too far in front of, but rather *within* the electronics.

i. it's complicated

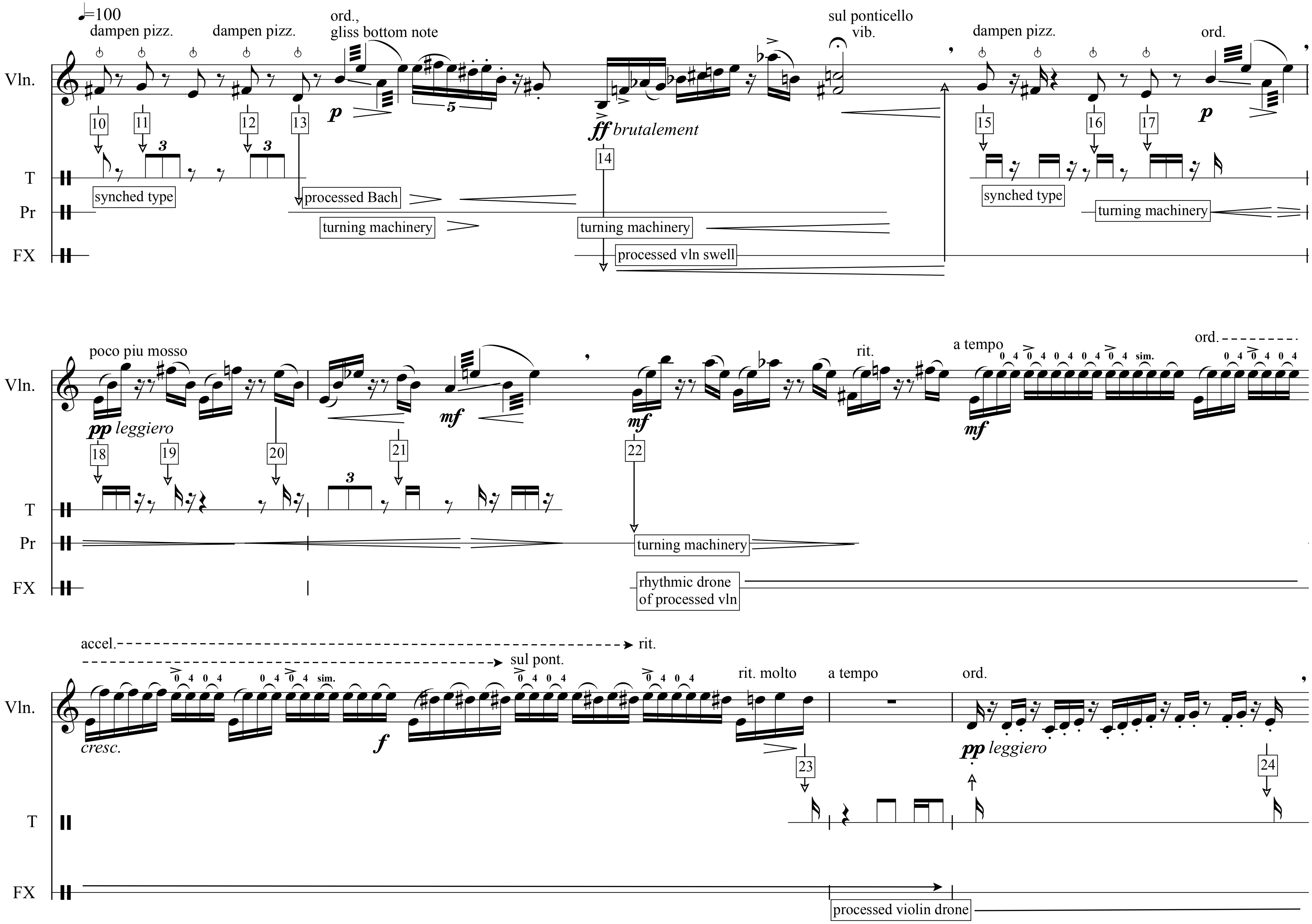


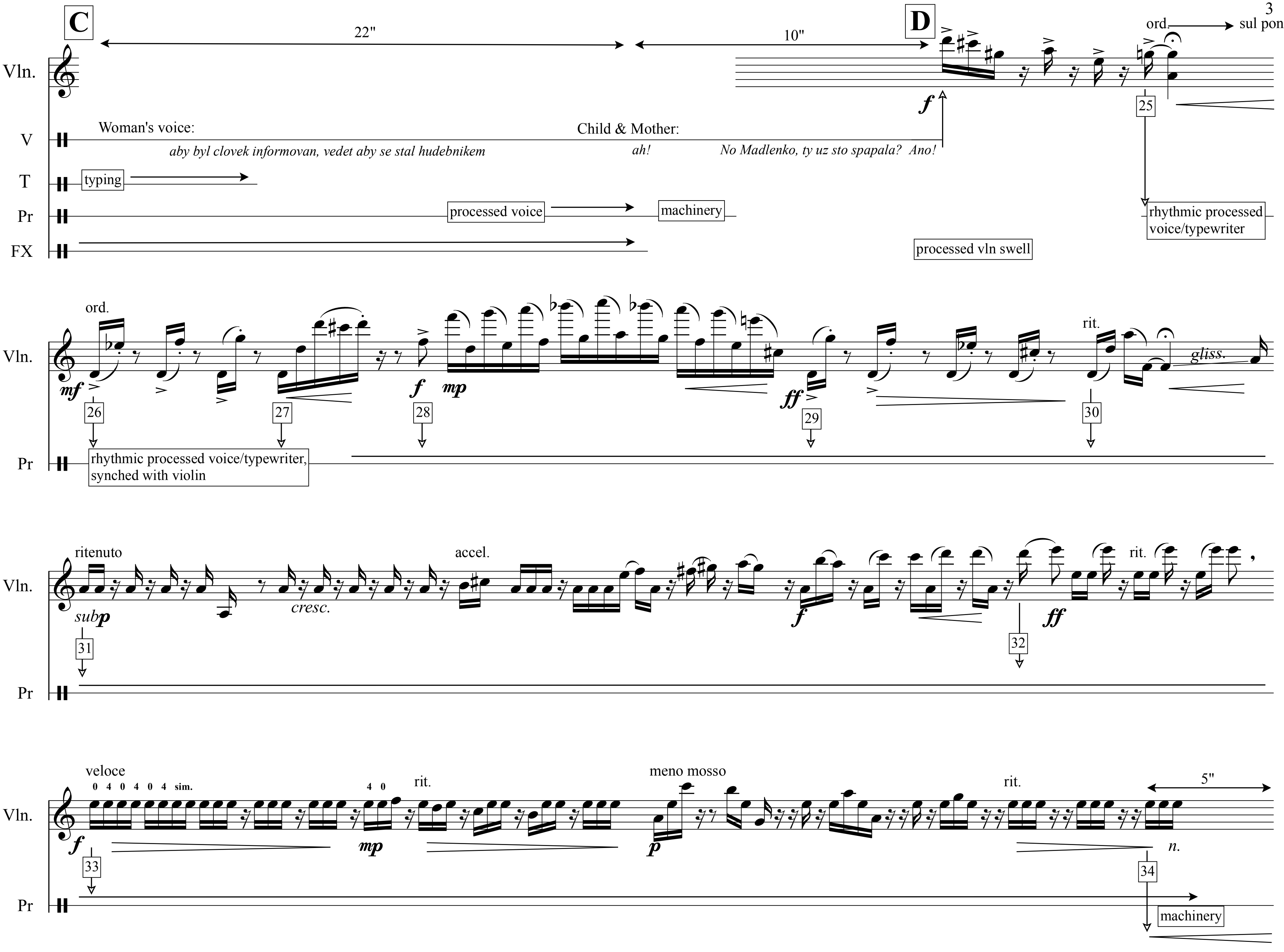
Introduction:
Typewriter typing while my sister's voice is reading:
Vedet, ale vedet jinak,
Vedet ne, kvuli tomu, aby byl clovek informován,
*Vedet, aby se stal hudebníkem pravdy.**
The voice and the typewriter play between clean and processed versions.
This is accompanied by processed Ysayë/Bach excerpts and the sound of turning machinery.

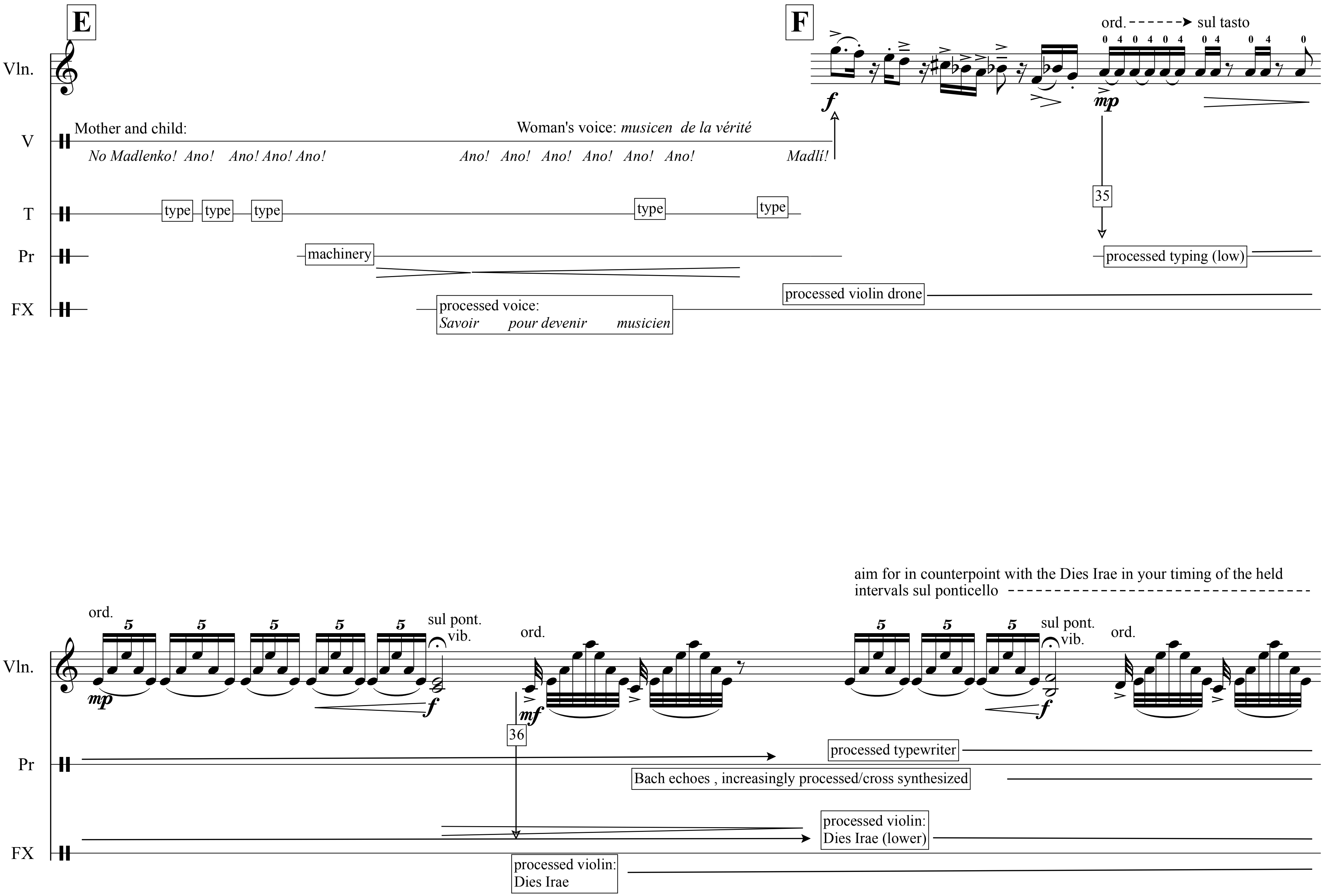
A
B
49"
♩=120 rubato
f brutalement
pp leggiero
ff brutalement
Voice(s) (V)
Typewriter (T)
Processed Typewriter/ Voices (Pr)
Processed Violin (FX)
1
2
3
4
5
6
7
Typing sounds triggered in sync with violin figures
type
processed Bach
turning machinery
cue: (at 0:45) large swell of processed sound (pitch: A)
Vln.
pp leggiero
4 0
0 4
8
9
sul ponticello
vib.
Pr
FX
processed Bach
turning machinery
turning machinery
swell of processed vln

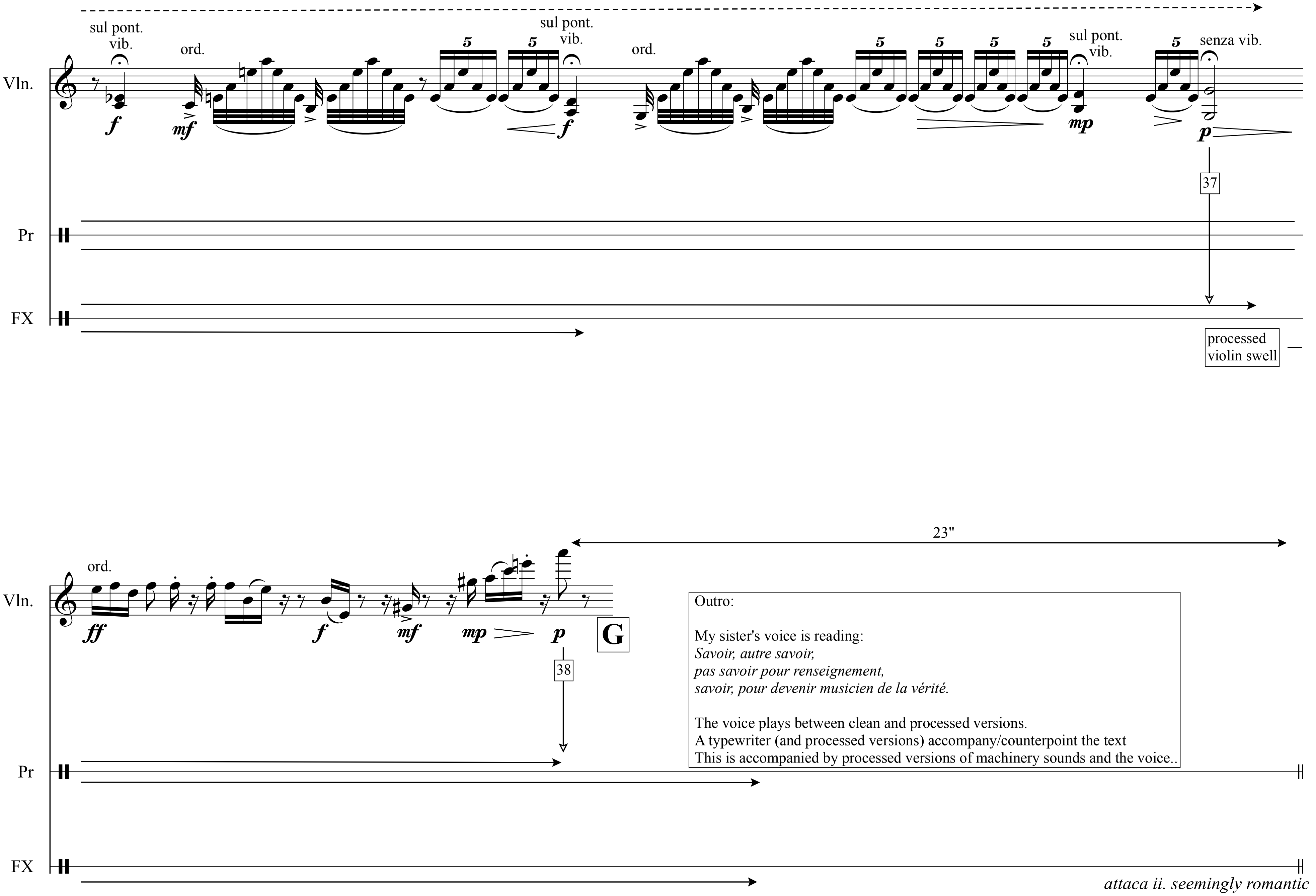
---

* Henri Michaux, translated by Jan Vladislav


♩=100
dampen pizz.
dampen pizz.
ord.,
gliss bottom note
sul ponticello
vib.
dampen pizz.
ord.
Vln.
T
Pr
FX
10
11
12
13
14
15
16
17
3
5
p
ff brutalement
synched type
processed Bach
turning machinery
turning machinery
processed vln swell
synched type
turning machinery
poco piu mosso
pp leggiero
mf
mf
rit.
a tempo
ord.
0 4 0 4 0 4 0 4 0 4 sim.
18
19
20
21
22
turning machinery
rhythmic drone
of processed vln
accel.
rit.
sul pont.
sim.
cresc.
f
rit. molto
a tempo
ord.
pp leggiero
23
24
processed violin drone


C
22"
10"
D
ord.
sul pont.
Vln.
V
T
Pr
FX
Woman's voice:
aby byl clovek informovan, vedet aby se stal hudebnikem
Child & Mother:
ah!
No Madlenko, ty uz sto spapala? Ano!
typing
processed voice
machinery
processed vln swell
f
25
rhythmic processed voice/typewriter
ord.
mf
26
27
28
29
30
f
mp
ff
rit.
gliss.
rhythmic processed voice/typewriter, synched with violin
ritenuto
subp
cresc.
accel.
f
ff
rit.
31
32
veloce
0 4 0 4 0 4 sim.
4 0
rit.
meno mosso
rit.
5"
f
mp
p
n.
33
34
machinery


E
F
Vln.
V
T
Pr
FX
Mother and child:
No Madlenko! Ano! Ano! Ano! Ano!
Woman's voice: musicen de la vérité
Ano! Ano! Ano! Ano! Ano! Ano!
Madli!
type
type
type
type
type
machinery
processed voice:
Savoir pour devenir musicien
processed violin drone
ord. sul tasto
0 4 0 4 0 4 0 4 0 4 0
f
mp
35
processed typing (low)
ord.
5
mp
f
sul pont.
vib.
ord.
mf
36
aim for in counterpoint with the Dies Irae in your timing of the held intervals sul ponticello
processed typewriter
Bach echoes , increasingly processed/cross synthesized
processed violin:
Dies Irae (lower)
processed violin:
Dies Irae


Vln.
Pr
FX
sul pont.
vib.
ord.
5
sul pont.
vib.
ord.
sul pont.
vib.
senza vib.
f
mf
f
mp
p
37
processed
violin swell
ord.
ff
f
mf
mp
p
38
G
23"

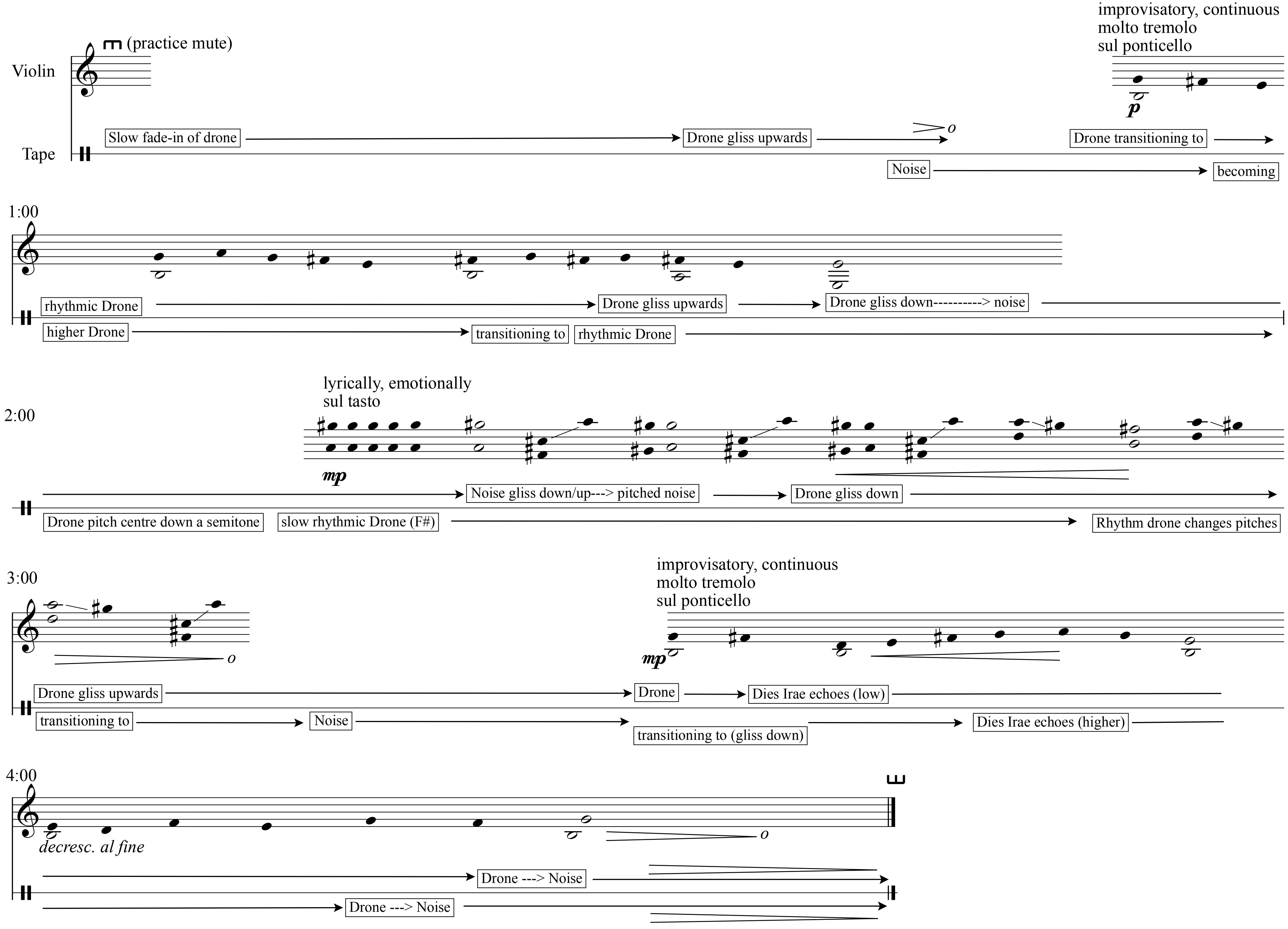
Outro:

My sister's voice is reading:
Savoir, autre savoir,
pas savoir pour renseignement,
savoir, pour devenir musicien de la vérité.

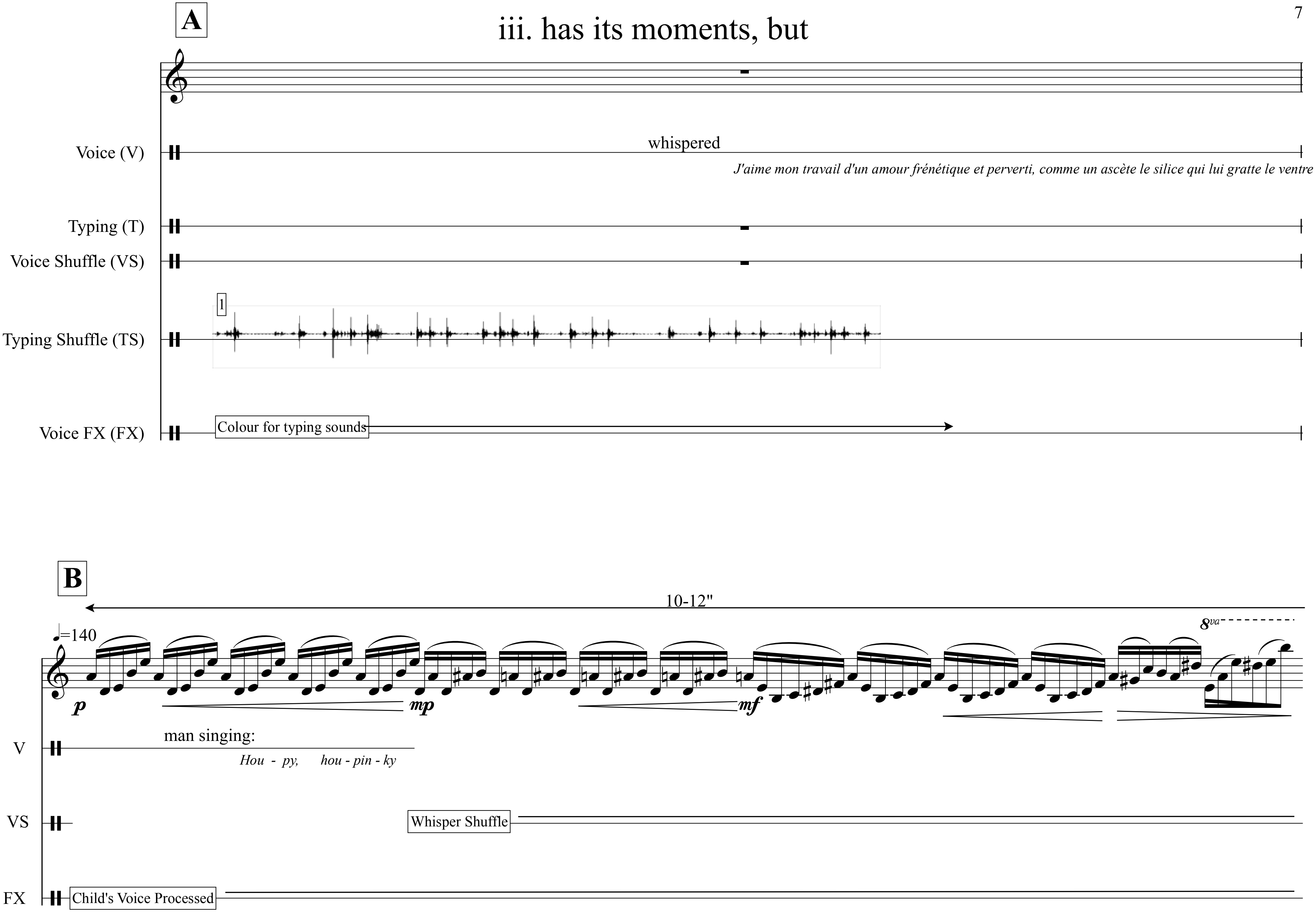
The voice plays between clean and processed versions.
A typewriter (and processed versions) accompany/counterpoint the text
This is accompanied by processed versions of machinery sounds and the voice..

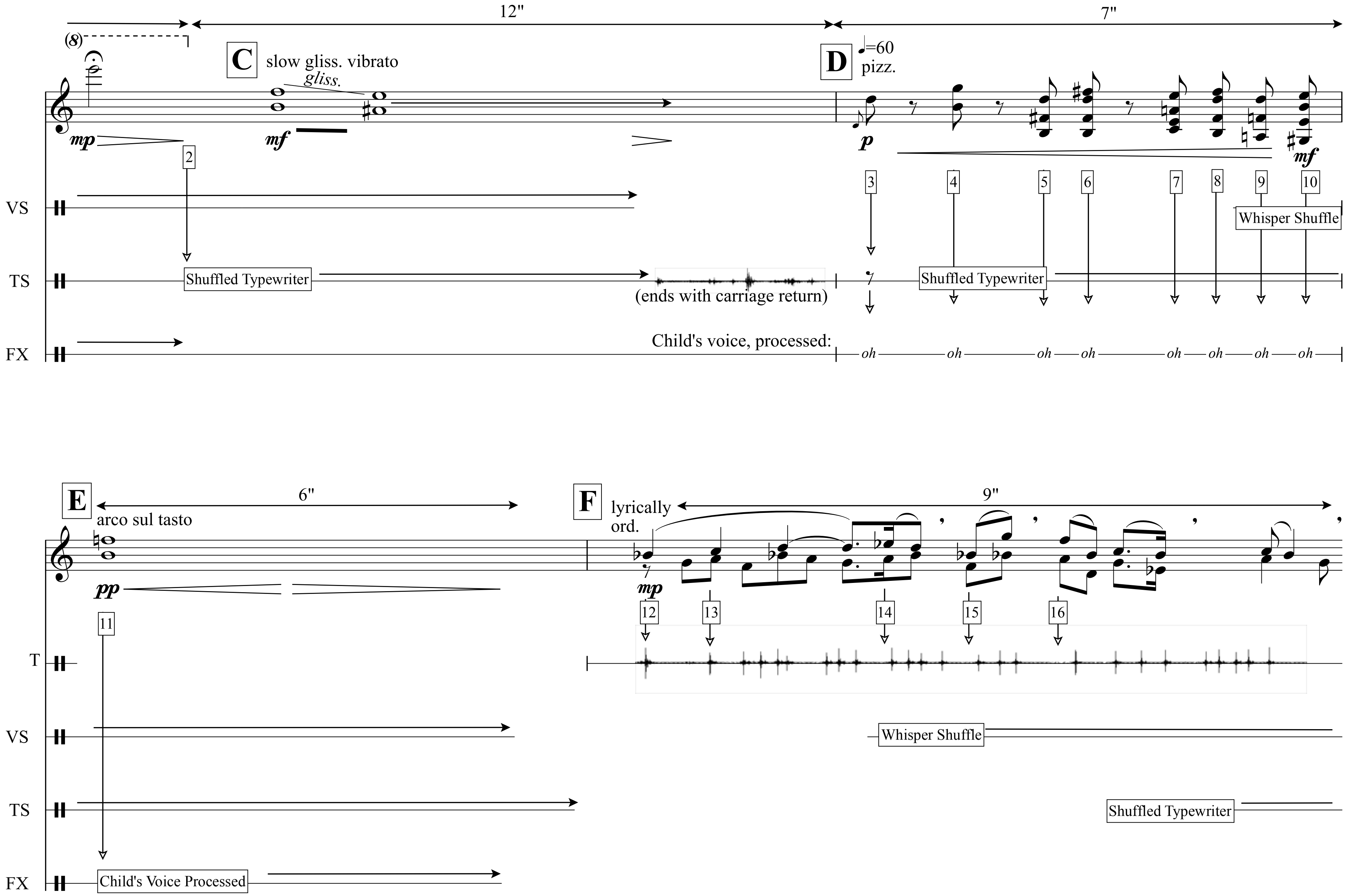
attaca ii. seemingly romantic

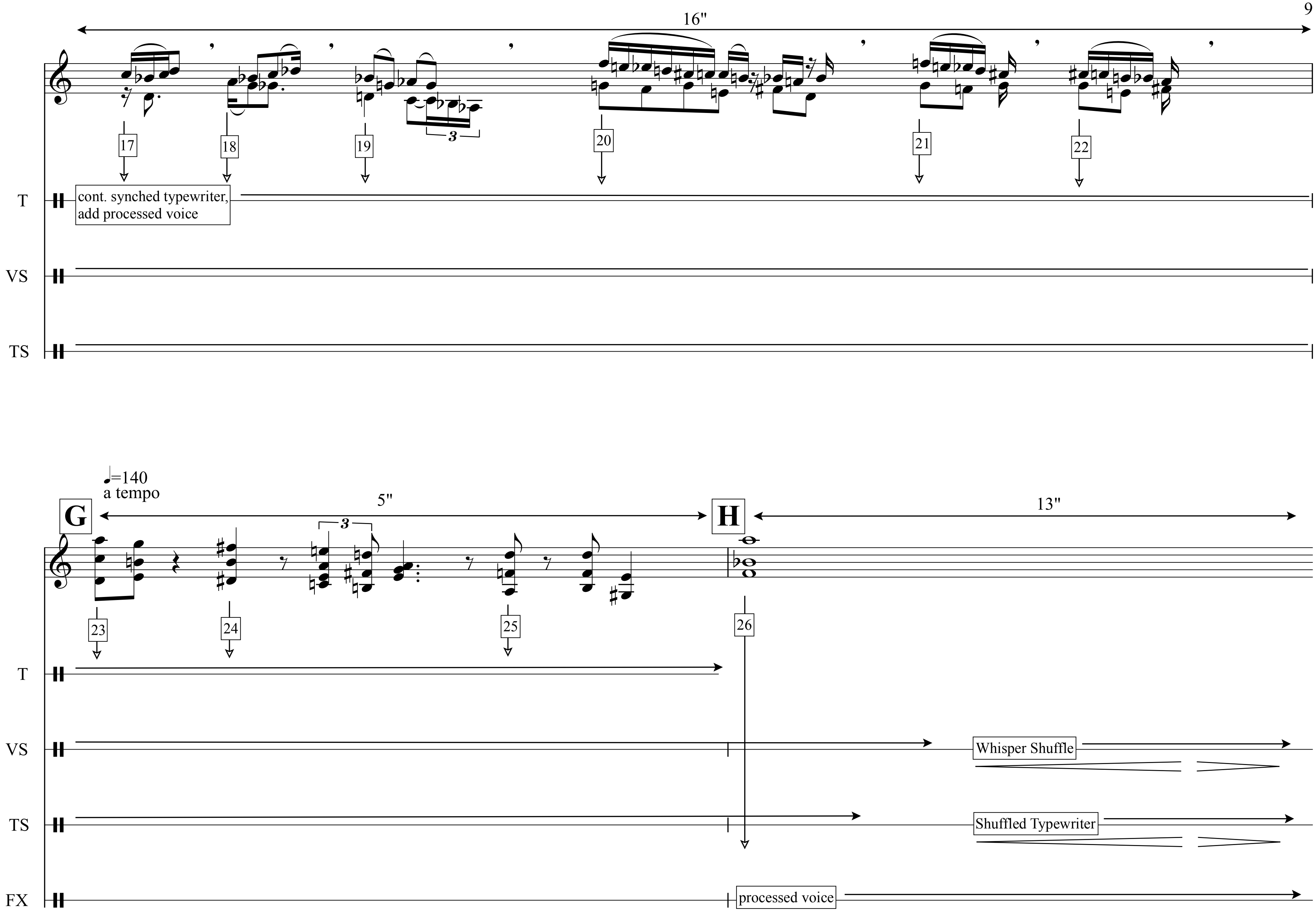
ii. seemingly romantic

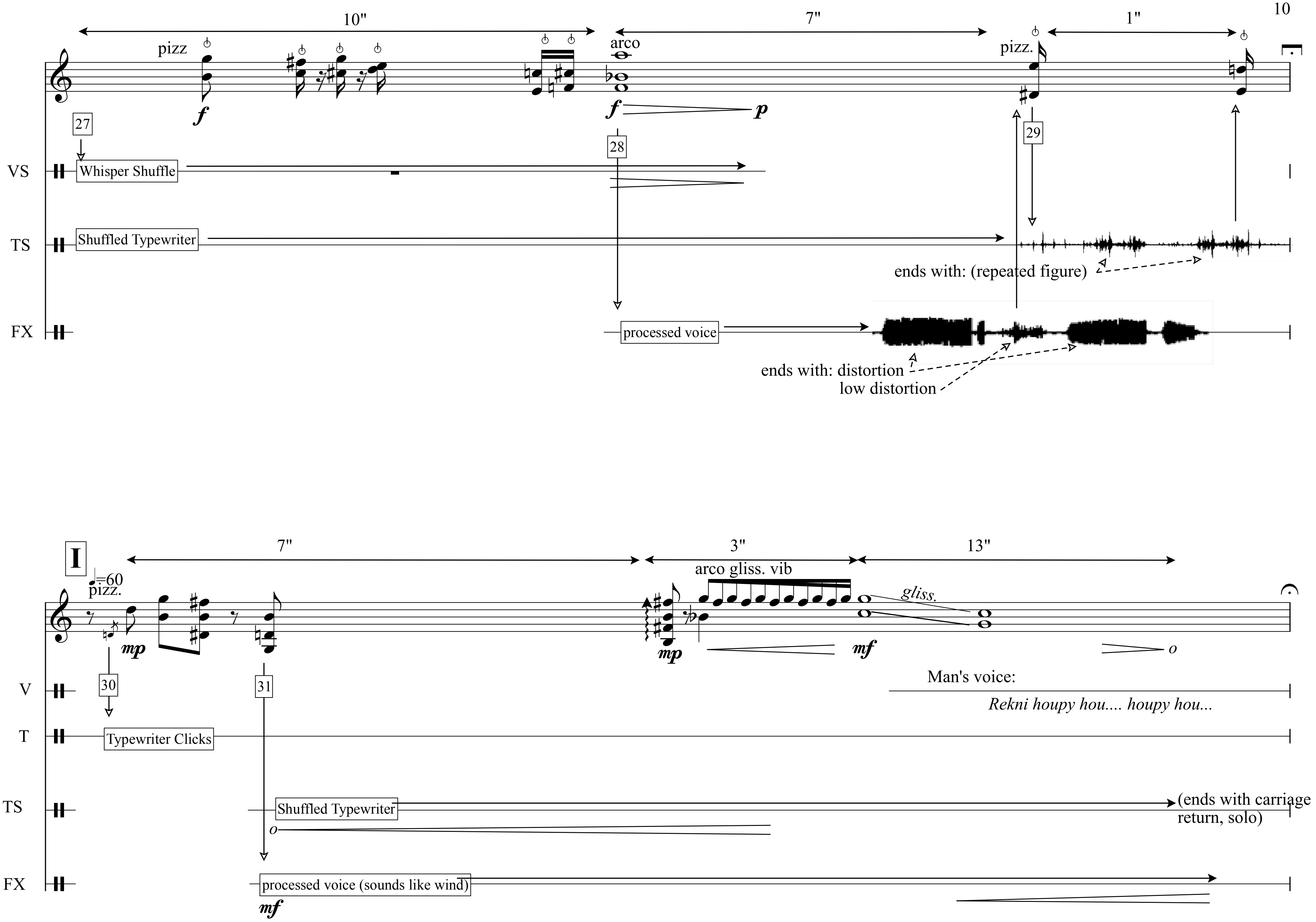

Violin
Tape
(practice mute)
improvisatory, continuous
molto tremolo
sul ponticello
p
Slow fade-in of drone
Drone gliss upwards
Drone transitioning to
Noise
becoming
1:00
rhythmic Drone
Drone gliss upwards
Drone gliss down----------> noise
higher Drone
transitioning to
rhythmic Drone
2:00
lyrically, emotionally
sul tasto
mp
Noise gliss down/up---> pitched noise
Drone gliss down
Drone pitch centre down a semitone
slow rhythmic Drone (F#)
Rhythm drone changes pitches
3:00
improvisatory, continuous
molto tremolo
sul ponticello
mp
Drone gliss upwards
Drone
Dies Irae echoes (low)
transitioning to
Noise
transitioning to (gliss down)
Dies Irae echoes (higher)
4:00
decresc. al fine
Drone ---> Noise
Drone ---> Noise

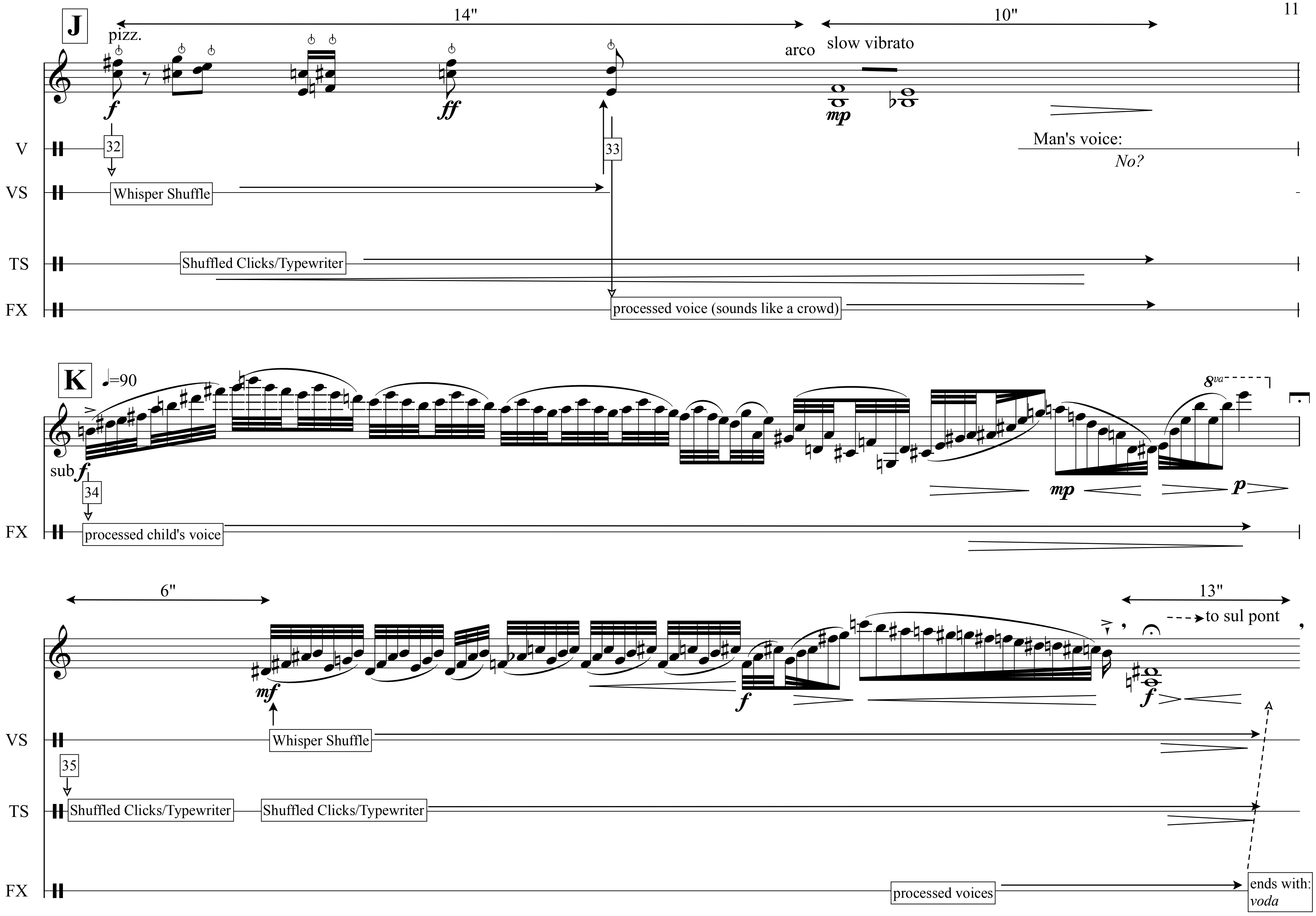
iii. has its moments, but

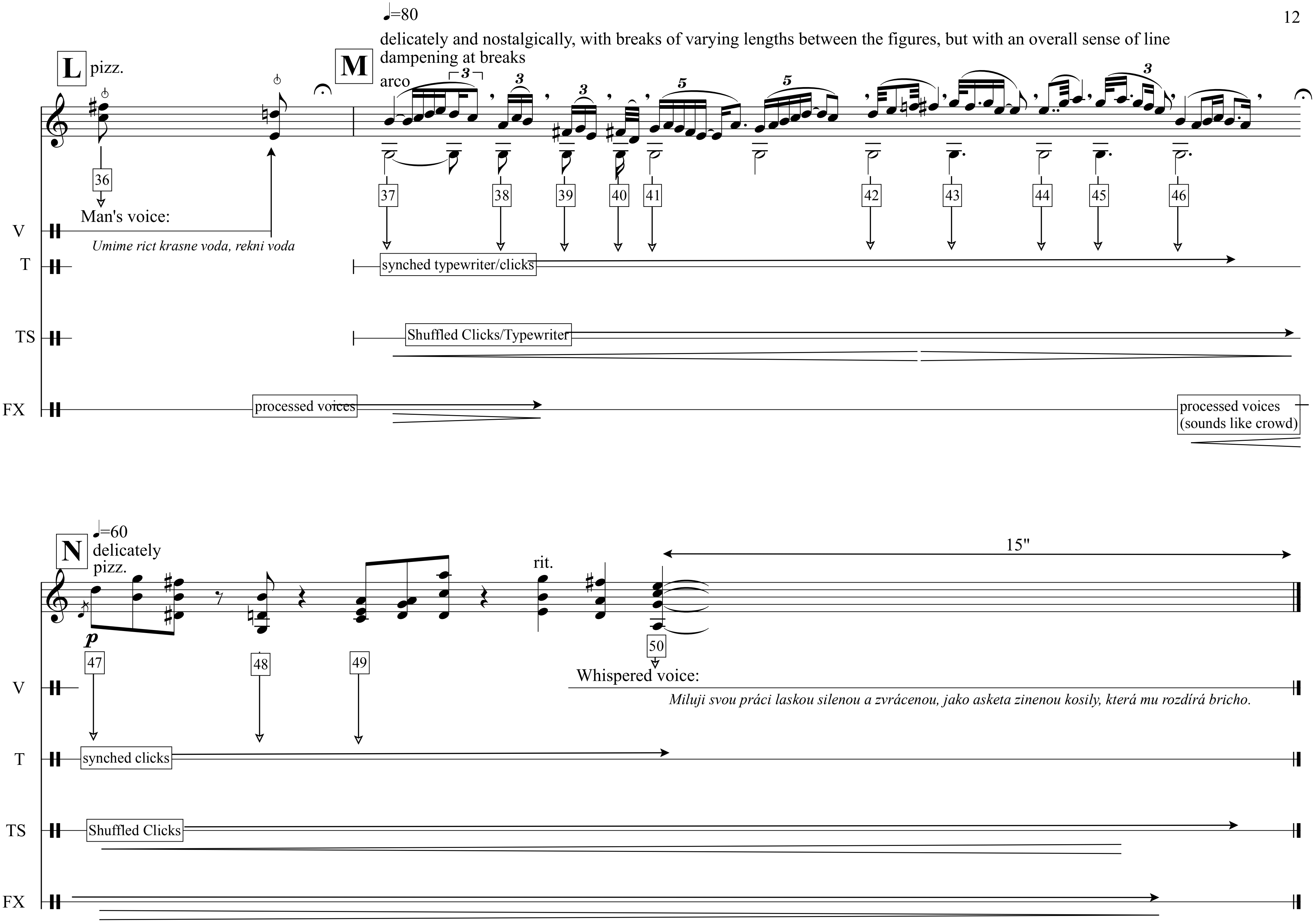

A
Voice (V)
whispered
J'aime mon travail d'un amour frénétique et perverti, comme un ascète le silice qui lui gratte le ventre
Typing (T)
Voice Shuffle (VS)
1
Typing Shuffle (TS)
Voice FX (FX)
Colour for typing sounds
B
10-12"
♩=140
8va
p
mp
mf
V
man singing:
Hou - py, hou - pin - ky
VS
Whisper Shuffle
FX
Child's Voice Processed


12"
7"
(8)
C
slow gliss. vibrato
gliss.
D
♩=60
pizz.
mp
mf
p
mf
2
3
4
5
6
7
8
9
10
VS
TS
FX
Shuffled Typewriter
(ends with carriage return)
Shuffled Typewriter
Whisper Shuffle
Child's voice, processed:
oh
oh
oh
oh
oh
oh
oh
oh
E
6"
arco sul tasto
pp
11
F
lyrically
ord.
9"
mp
12
13
14
15
16
T
VS
TS
FX
Child's Voice Processed
Whisper Shuffle
Shuffled Typewriter

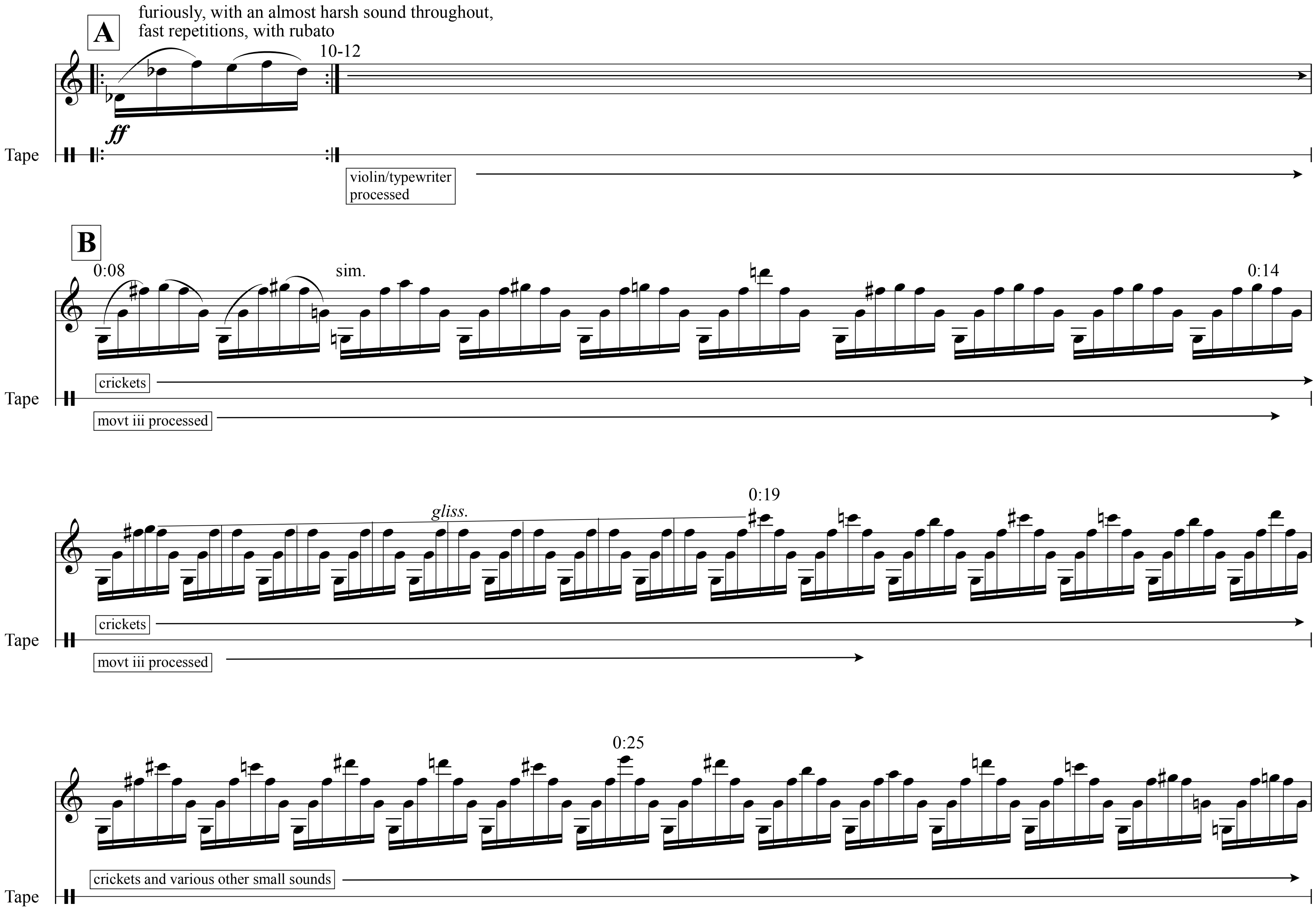

16"
17
18
19
20
21
22
T
cont. synched typewriter, add processed voice
VS
TS
G
♩=140
a tempo
5"
H
13"
23
24
25
26
T
VS
Whisper Shuffle
TS
Shuffled Typewriter
FX
processed voice

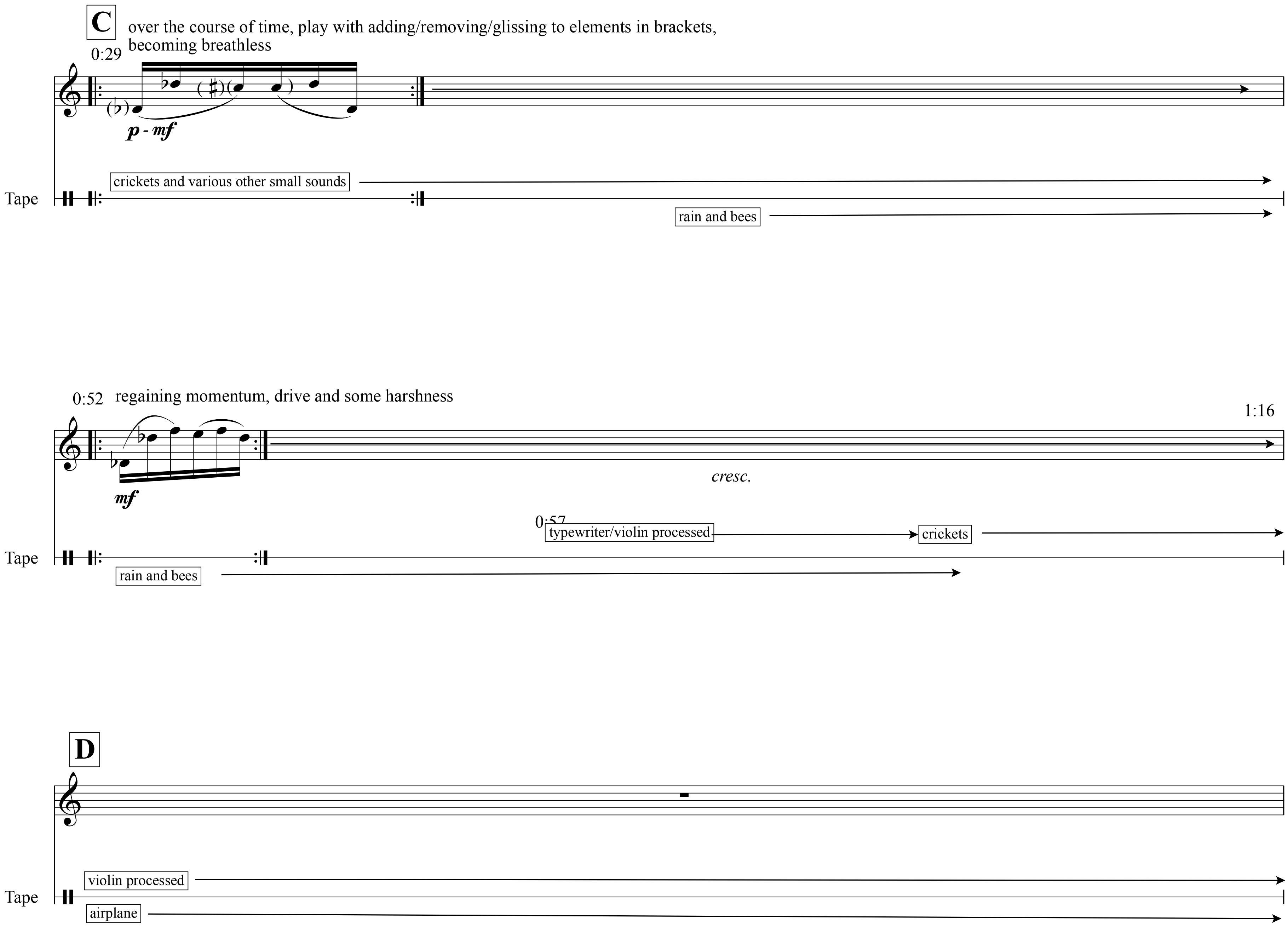

10"
7"
1"
pizz
arco
pizz.
f
f
p
27
28
29
VS
Whisper Shuffle
TS
Shuffled Typewriter
ends with: (repeated figure)
FX
processed voice
ends with: distortion
low distortion
I
♩=60
pizz.
7"
3"
13"
arco gliss. vib
gliss.
mp
mp
mf
o
30
31
V
Man's voice:
Rekni houpy hou.... houpy hou...
T
Typewriter Clicks
TS
Shuffled Typewriter
o
(ends with carriage return, solo)
FX
processed voice (sounds like wind)
mf

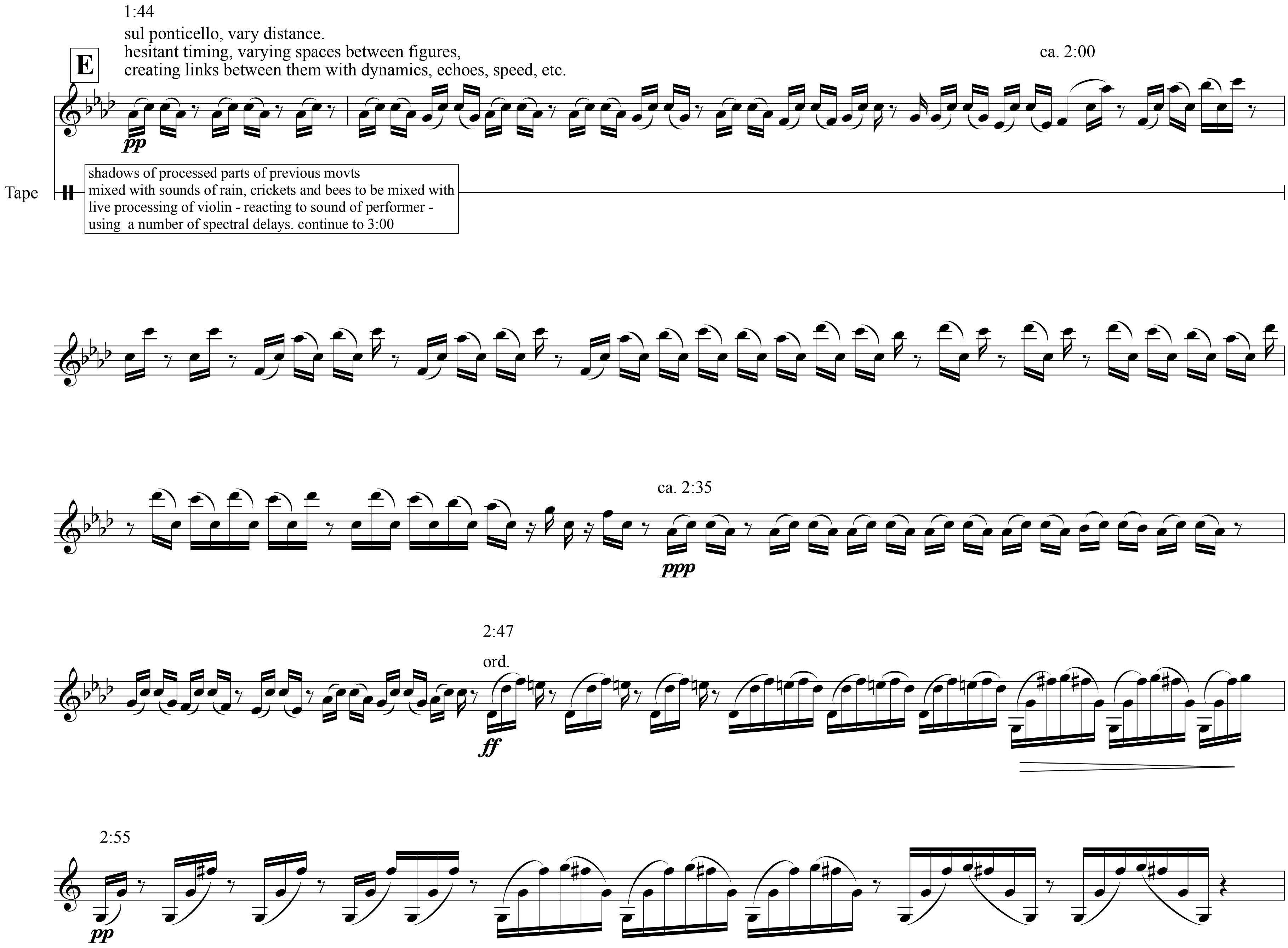

J
14"
10"
pizz.
arco
slow vibrato
f
ff
mp
V
VS
TS
FX
32
33
Whisper Shuffle
Shuffled Clicks/Typewriter
processed voice (sounds like a crowd)
Man's voice:
No?
K
♩=90
sub f
34
mp
p
8va
processed child's voice
6"
13"
to sul pont
mf
f
35
Whisper Shuffle
Shuffled Clicks/Typewriter
Shuffled Clicks/Typewriter
processed voices
ends with:
voda

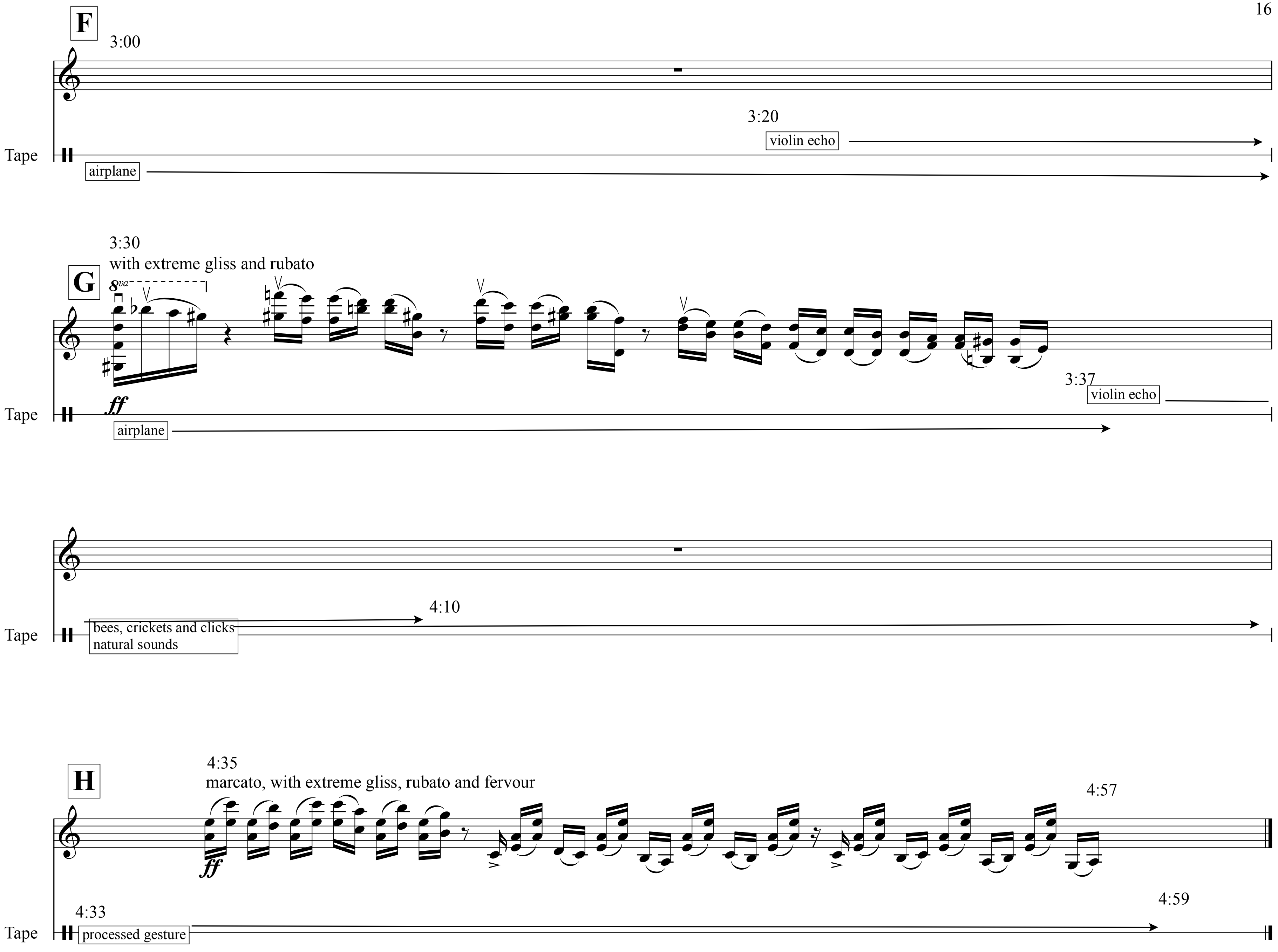

L
pizz.
36
Man's voice:
Umime rict krasne voda, rekni voda
V
T
TS
FX
processed voices
M
♩=80
delicately and nostalgically, with breaks of varying lengths between the figures, but with an overall sense of line
dampening at breaks
arco
3
5
37
38
39
40
41
42
43
44
45
46
synched typewriter/clicks
Shuffled Clicks/Typewriter
processed voices
(sounds like crowd)
N
♩=60
delicately
pizz.
p
rit.
15"
47
48
49
50
Whispered voice:
Miluji svou práci laskou silenou a zvrácenou, jako asketa zinenou kosily, která mu rozdírá bricho.
synched clicks
Shuffled Clicks

iv. i'd have a quarrel with the world


A
furiously, with an almost harsh sound throughout,
fast repetitions, with rubato
10-12
ff
Tape
violin/typewriter processed
B
0:08
sim.
0:14
crickets
Tape
movt iii processed
gliss.
0:19
crickets
Tape
movt iii processed
0:25
crickets and various other small sounds
Tape


C
over the course of time, play with adding/removing/glissing to elements in brackets, becoming breathless
0:29
p - mf
Tape
crickets and various other small sounds
rain and bees
0:52
regaining momentum, drive and some harshness
1:16
mf
cresc.
0:57
typewriter/violin processed
crickets
rain and bees
D
violin processed
airplane


1:44
sul ponticello, vary distance.
hesitant timing, varying spaces between figures,
creating links between them with dynamics, echoes, speed, etc.
E
pp
ca. 2:00
Tape
shadows of processed parts of previous movts
mixed with sounds of rain, crickets and bees to be mixed with
live processing of violin - reacting to sound of performer -
using a number of spectral delays. continue to 3:00
ca. 2:35
ppp
2:47
ord.
ff
2:55
pp


F
3:00
Tape
3:20
violin echo
airplane
3:30
with extreme gliss and rubato
G
8va
ff
Tape
3:37
violin echo
airplane
Tape
4:10
bees, crickets and clicks
natural sounds
H
4:35
marcato, with extreme gliss, rubato and fervour
4:57
ff
4:33
Tape
processed gesture
4:59

BitterSweet

for choir and electronics

Terri Hron

2013

Program Note:

BitterSweet explores the passage from inner darkness, through the beginning of hope, towards light. At the heart of the work are three poems by my late grandfather, the Czech poet and translator Jan Vladislav. The sonic material comes from various building blocks, including the sound of my grandfather's voice reciting the three poems, the motet *Tristis est anima mea* by Orlando Lasso, James MacMillan's *Sun Dogs*, and four folk songs. The other poetic materials are excerpts from Rimbaud and Artaud, referred to in my grandfather's poems, as well as a text written for the piece by Robert Glick. I thought of *BitterSweet* as a passion, and chose to give it a rather contemplative character, since Lent – and indeed other rites of cleansing and renewal – is a time of inner reflection. As such, the choir is often creating just one of the layers of sound that combines with the electronics to create slowly shifting textures.

I thank Timothy Shantz, Nina Hornjatkevyc and Katy Warke for their time and input.

BitterSweet is dedicated to Robert Normandeau.

Technical Note:

Subtitles to *BitterSweet* are to be projected in performance. These are synchronized with the fixed soundtrack, and should therefore be cued simultaneously.

The fixed soundtrack comprises 10 tracks, roughly corresponding to each movement. The playback of each track should be allowed to continue until its conclusion, and not be interrupted by the launch of the following track, allowing for a crossfade to occur. The conductor cues the launch of new soundtrack sections.

The live electronics (marked by shading behind the vocal parts) processes the sound of the two soprano soloists, who each wear a headset cardioid microphone (preferably DPA 4088). The processing is improvised in real time using the GRM Evolution and Shuffling plugins, using the presets provided.

The voices of the soloists should be amplified to blend with the processing and soundtrack. The choir may also be slightly amplified to create a convincing blend, yet should not always be in the foreground.

Texts:

Jan Vladislav (1923-2009)

1.
In an intermittent lapse of lucidity
you say yes, and already you are swept
towards a road
from which there is no return.

In an intermittent loss of reason
you say no, and your whole life you wonder
about all that fate
erased from your journey's map.

In short, what is most likely,
he wrote home from Aden on the fifteenth
of January, nineteen hundred and eighty five,
is that you mostly go, where you don't want to,
that you rather end up doing, what you never intended,
and you live and die differently,
than you would ever have imagined,

and there is no hope,
that anyone will ever,
somehow, make it up to you.

2.
In the very beginning, as it is written,
were created from the soul of Adam,
the souls of us all. Whenever a woman conceives,
the angel of night brings the seed before God,
who decides, what kind of child it will be,
small or tall, weak or strong,
man or woman – only the choice
between good and evil is the person's –
and he commands the soul to enter
the seed. The soul, however, opens its mouth
because it knows, what awaits it,
and cries out in protest: Why do you want me,
to go out into the world?
Against your will you were created,
against your will you will be born into the world,
against your will you will die.

When you lie next to me and I lay my hand
on your lap, I suddenly feel,
how in your slow, peaceful breath
the universe pulsates, and I am forever amazed
how my soul could have protested so long
and not wanted to come into the world.

3.

In the storms and changes of last December,
she still withstood, protected by the bodies
of massive chestnuts, but today,
amidst late October's fireworks,
the beech under the window could no longer hold up her
overly large green head
and folded it after sunset
into the yellow, red and black
embers of the garden.
In the ground, the trunk that remained, a measly stump
and around it, a few budding twigs.

I must tell you one secret,
directed in his last letter to a friend
the poet and actor Antonin A.,
people only die, because they've believed
in death from childhood. We die because
we foresee ourselves
in the four boards of our coffin.
The moment we refuse that image,
we'll never die. I speak of my body –
I'm immortal and will live
on like today. You must, as I tell you,
refuse death, and then you won't die
either, ever.

The fourth of March 1948 –
he was but fifty-two years old –
they found him in the morning on the ground, dead, right
next to his bed,
as if he couldn't
carry his heavy, crazy head
a step further.

(In a different version,
a gardener found him in the morning,
sitting dead on his cot,
holding a shoe in his hand, as if he were
preparing for a journey.)

Arthur Rimbaud (1854-1891)

from a letter to his mother and brother in 1885

In the end, what’s most likely, is that we mostly go where we don’t want to, and we mostly end up doing what we would rather not be doing, and we live and die completely differently that we would ever have wanted, without hope of any kind of compensation.

Antonin Artaud (1896-1948)

from *Love Without a Truce*

When I lift my eyes towards you
you’d think the world trembling
and the fires of love
resembling your beloved’s.

St. Matthew's Gospel, Chapter 26/Orlando Lasso

from *Tristis est anima mea*

Soon you will see a crowd of men surround me.
You shall flee, and I will go to be sacrificed for you.

Robert Glick (b.1969)/Terri Hron

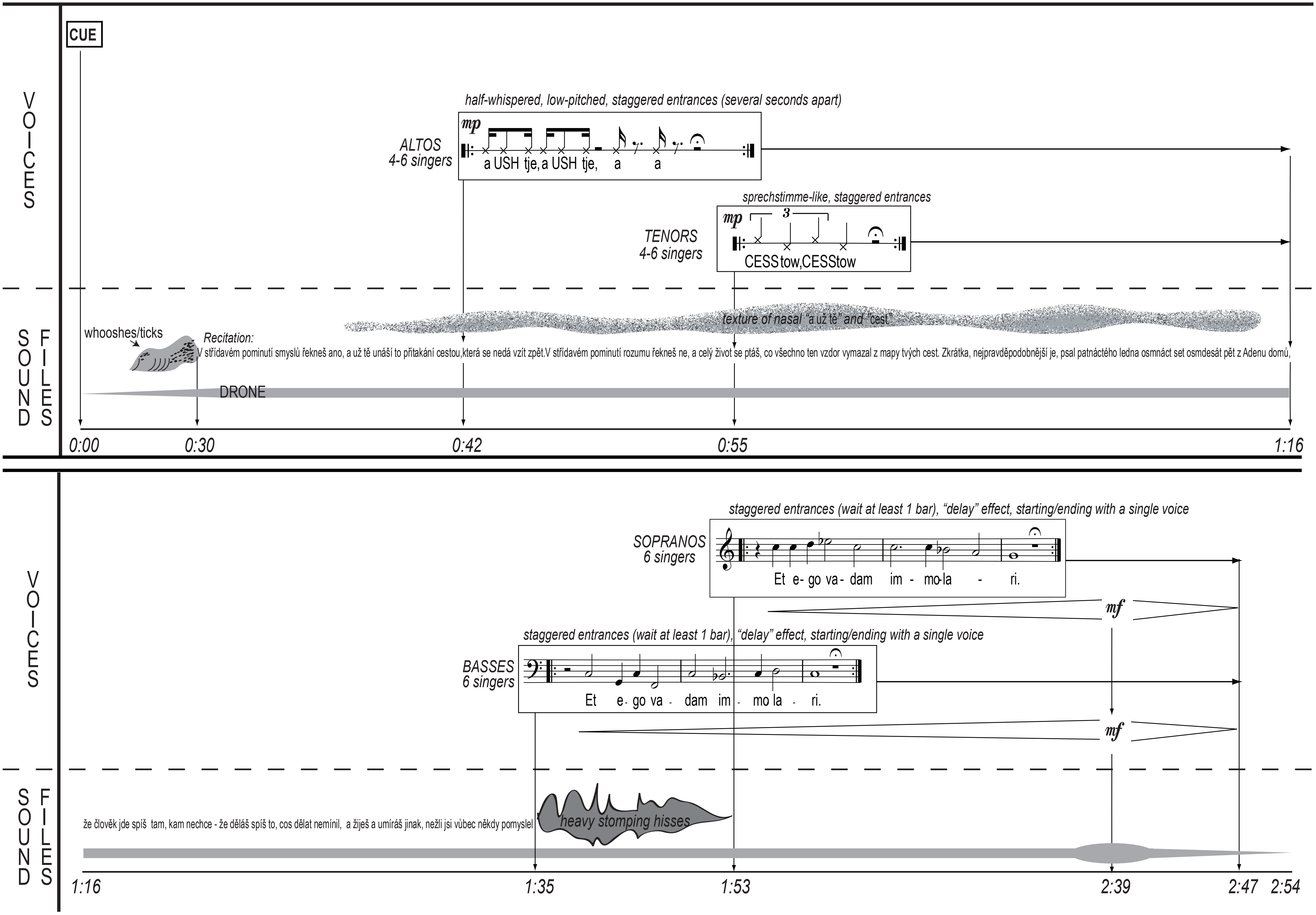
from *Texts for BitterSweet*

This bell, half pealed,
half made, half lost,
half life, lost.
Life, life made, half paid,
this knell.

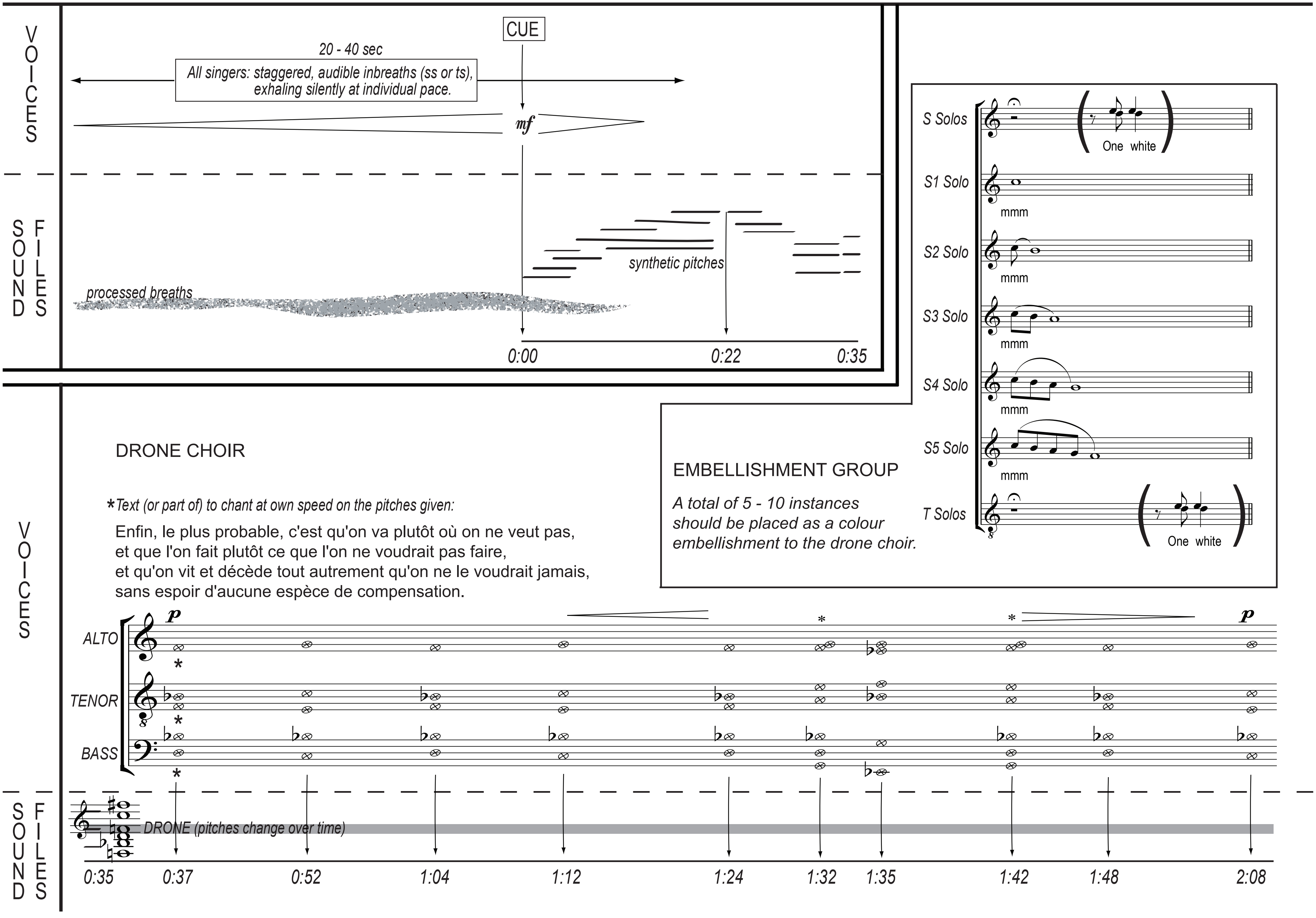
If as half this
as if this half
is as.
Half if this
as if this half
this as if this knell.

My socks, my map
my trimmed nails
and laces.

1. and I will


CUE
VOICES
SOUND FILES
half-whispered, low-pitched, staggered entrances (several seconds apart)
ALTOS
4-6 singers
mp
a USH tje, a USH tje, a a
sprechstimme-like, staggered entrances
TENORS
4-6 singers
mp
3
CESS tow, CESStow
texture of nasal "a už tě" and "cest"
whooshes/ticks
Recitation:
V střídavém pominutí smyslů řekneš ano, a už tě unáší to přitakání cestou,která se nedá vzít zpět.V střídavém pominutí rozumu řekneš ne, a celý život se ptáš, co všechno ten vzdor vymazal z mapy tvých cest. Zkrátka, nejpravděpodobnější je, psal patnáctého ledna osmnáct set osmdesát pět z Adenu domů,
DRONE
0:00
0:30
0:42
0:55
1:16
staggered entrances (wait at least 1 bar), "delay" effect, starting/ending with a single voice
SOPRANOS
6 singers
Et e- go va - dam im - mo-la - ri.
mf
staggered entrances (wait at least 1 bar), "delay" effect, starting/ending with a single voice
BASSES
6 singers
Et e- go va - dam im - mo la - ri.
mf
že člověk jde spíš tam, kam nechce - že děláš spíš to, cos dělat nemínil, a žiješ a umíráš jinak, nežli jsi vůbec někdy pomyslel
heavy stomping hisses
1:16
1:35
1:53
2:39
2:47
2:54

2. without any hope


VOICES
CUE
20 - 40 sec
mf
SOUND FILES
processed breaths
synthetic pitches
0:00
0:22
0:35
S Solos
One white
S1 Solo
mmm
S2 Solo
mmm
S3 Solo
mmm
S4 Solo
mmm
S5 Solo
mmm
T Solos
One white
VOICES
ALTO
TENOR
BASS
p
p
SOUND FILES
DRONE (pitches change over time)
0:35
0:37
0:52
1:04
1:12
1:24
1:32
1:35
1:42
1:48
2:08

All singers: staggered, audible inbreaths (ss or ts), exhaling silently at individual pace.

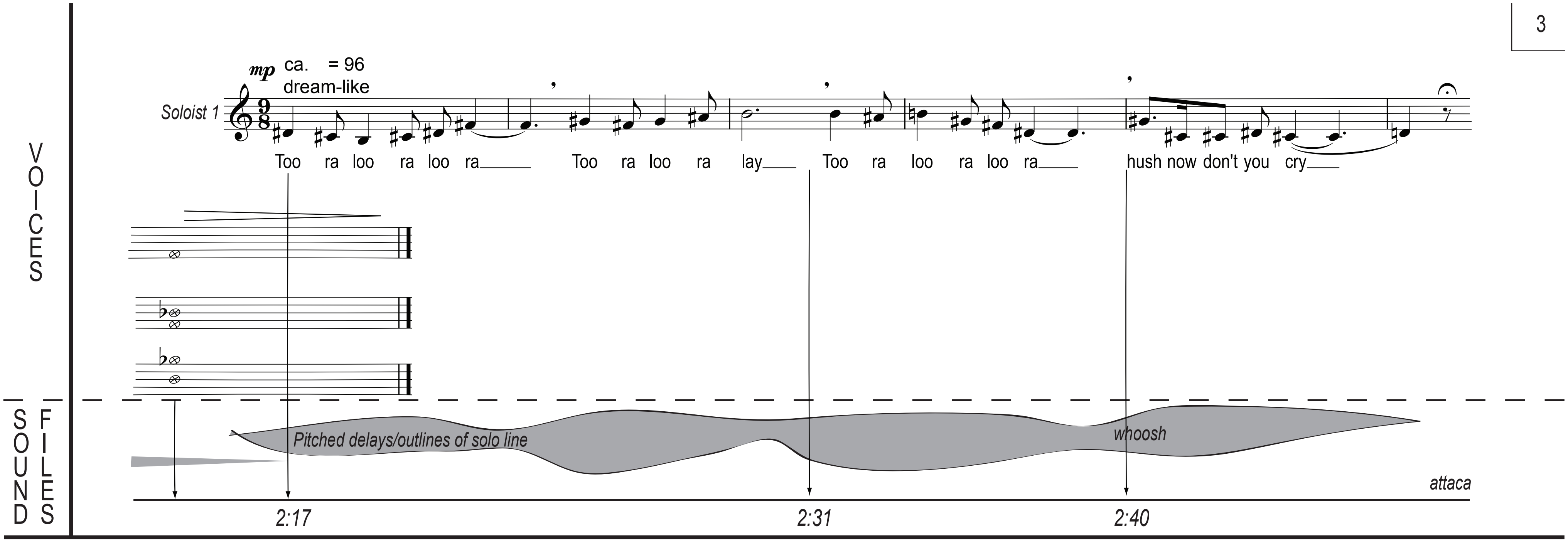
DRONE CHOIR

Text (or part of) to chant at own speed on the pitches given:

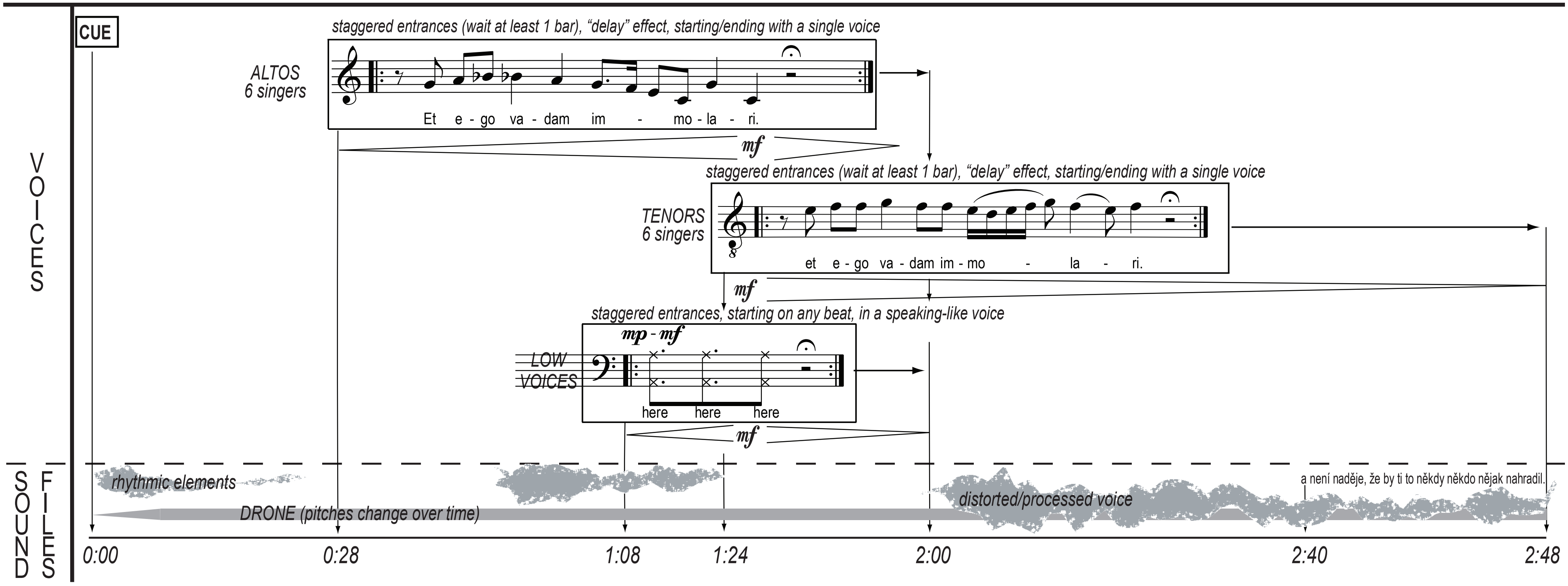
Enfin, le plus probable, c'est qu'on va plutôt où on ne veut pas,
et que l'on fait plutôt ce que l'on ne voudrait pas faire,
et qu'on vit et décède tout autrement qu'on ne le voudrait jamais,
sans espoir d'aucune espèce de compensation.

EMBELLISHMENT GROUP

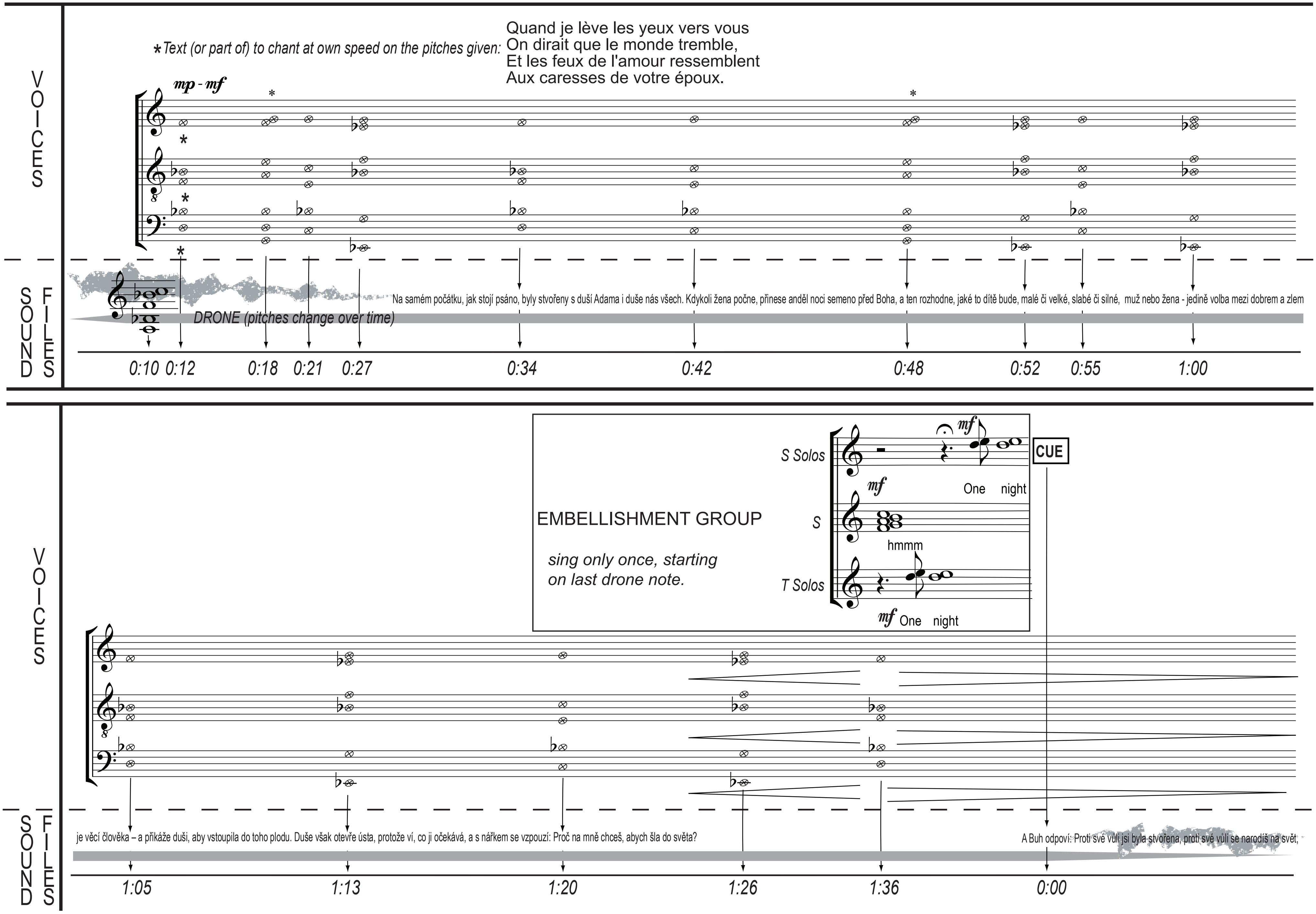
A total of 5 - 10 instances should be placed as a colour embellishment to the drone choir.


VOICES
SOUND FILES
Soloist 1
mp
ca. = 96
dream-like
Too ra loo ra loo ra
Too ra loo ra lay
Too ra loo ra loo ra
hush now don't you cry
Pitched delays/outlines of solo line
whoosh
attaca
2:17
2:31
2:40

3. sacrifice


VOICES
SOUND FILES
CUE
staggered entrances (wait at least 1 bar), "delay" effect, starting/ending with a single voice
ALTOS
6 singers
Et e - go va - dam im - mo - la - ri.
mf
staggered entrances (wait at least 1 bar), "delay" effect, starting/ending with a single voice
TENORS
6 singers
et e - go va - dam im - mo - la - ri.
mf
staggered entrances, starting on any beat, in a speaking-like voice
mp - mf
LOW VOICES
here here here
mf
rhythmic elements
DRONE (pitches change over time)
distorted/processed voice
a není naděje, že by ti to někdy někdo nějak nahradil.
0:00
0:28
1:08
1:24
2:00
2:40
2:48

4. the world trembles



Text (or part of) to chant at own speed on the pitches given:

Quand je lève les yeux vers vous
On dirait que le monde tremble,
Et les feux de l'amour ressemblent
Aux caresses de votre époux.

Na samém počátku, jak stojí psáno, byly stvořeny s duší Adama i duše nás všech. Kdykoli žena počne, přinese anděl noci semeno před Boha, a ten rozhodne, jaké to dítě bude, malé či velké, slabé či silné, muž nebo žena - jedině volba mezi dobrem a zlem je věcí člověka – a přikáže duši, aby vstoupila do toho plodu. Duše však otevře ústa, protože ví, co ji očekává, a s nářkem se vzpouzí: Proč na mně chceš, abych šla do světa?

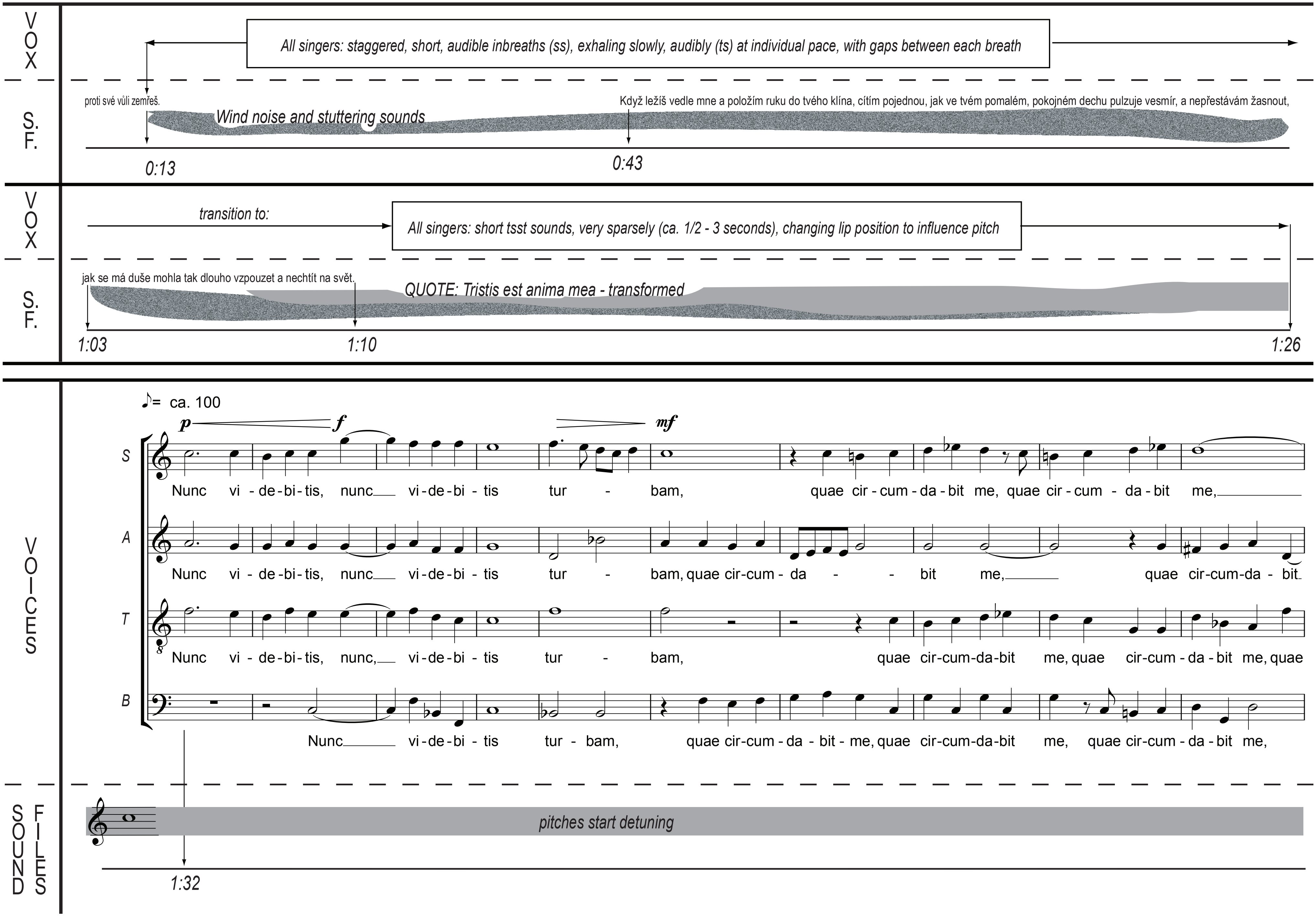
A Buh odpoví: Proti své vůli jsi byla stvořena, proti své vůli se narodíš na svět,

EMBELLISHMENT GROUP

sing only once, starting on last drone note.

VOICES
SOUND FILES
mp - mf
*
DRONE (pitches change over time)
0:10
0:12
0:18
0:21
0:27
0:34
0:42
0:48
0:52
0:55
1:00
S Solos
S
T Solos
mf
One night
hmmm
CUE
1:05
1:13
1:20
1:26
1:36
0:00

5. for you



All singers: staggered, short, audible inbreaths (ss), exhaling slowly, audibly (ts) at individual pace, with gaps between each breath

proti své vůli zemřeš.

Wind noise and stuttering sounds

Když ležíš vedle mne a položím ruku do tvého klína, cítím pojednou, jak ve tvém pomalém, pokojném dechu pulzuje vesmír, a nepřestávám žasnout,

transition to:

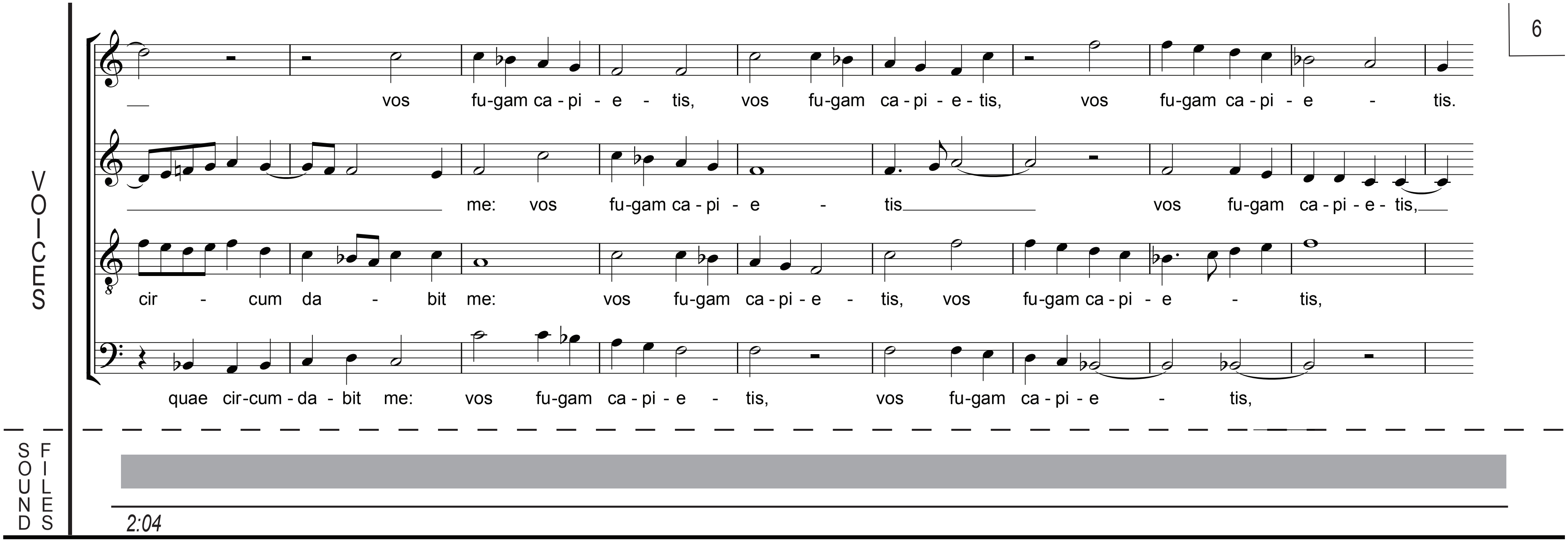
All singers: short tsst sounds, very sparsely (ca. 1/2 - 3 seconds), changing lip position to influence pitch

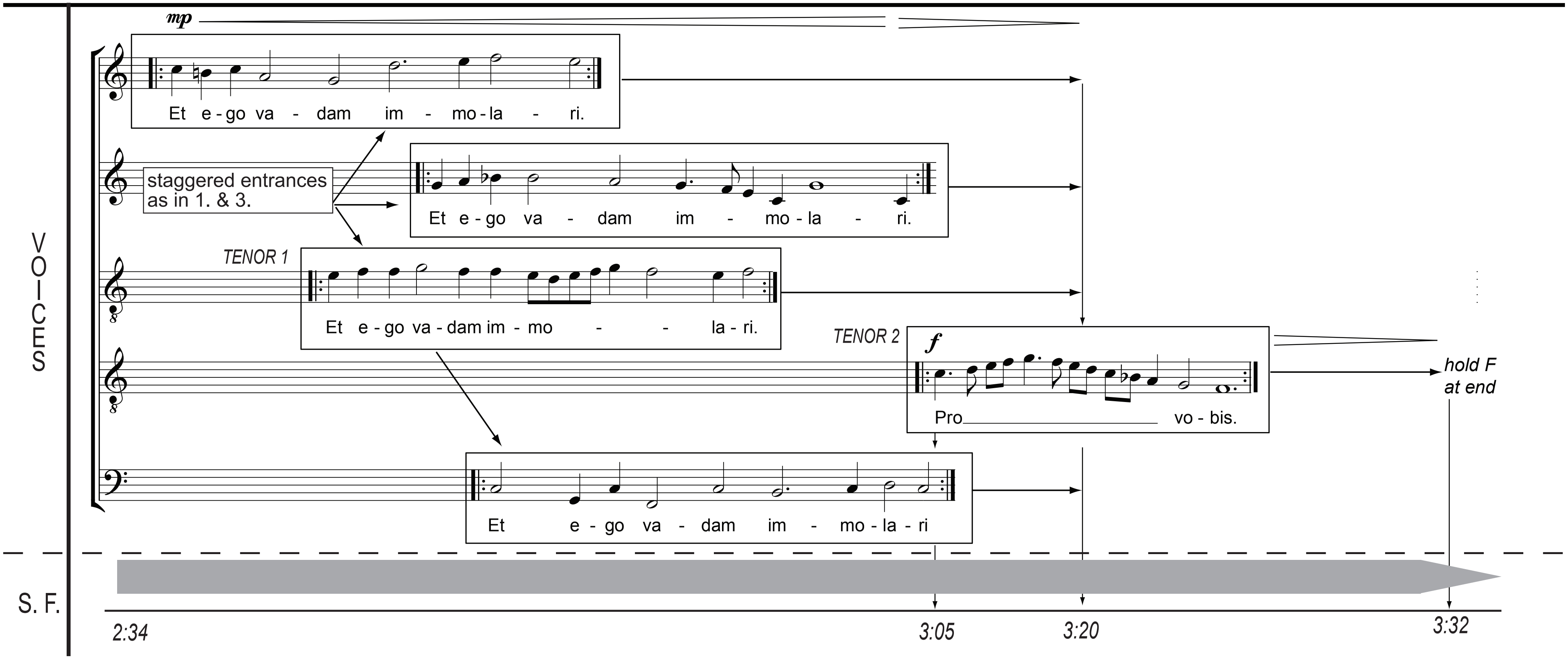
jak se má duše mohla tak dlouho vzpouzet a nechtít na svět.

QUOTE: Tristis est anima mea - transformed

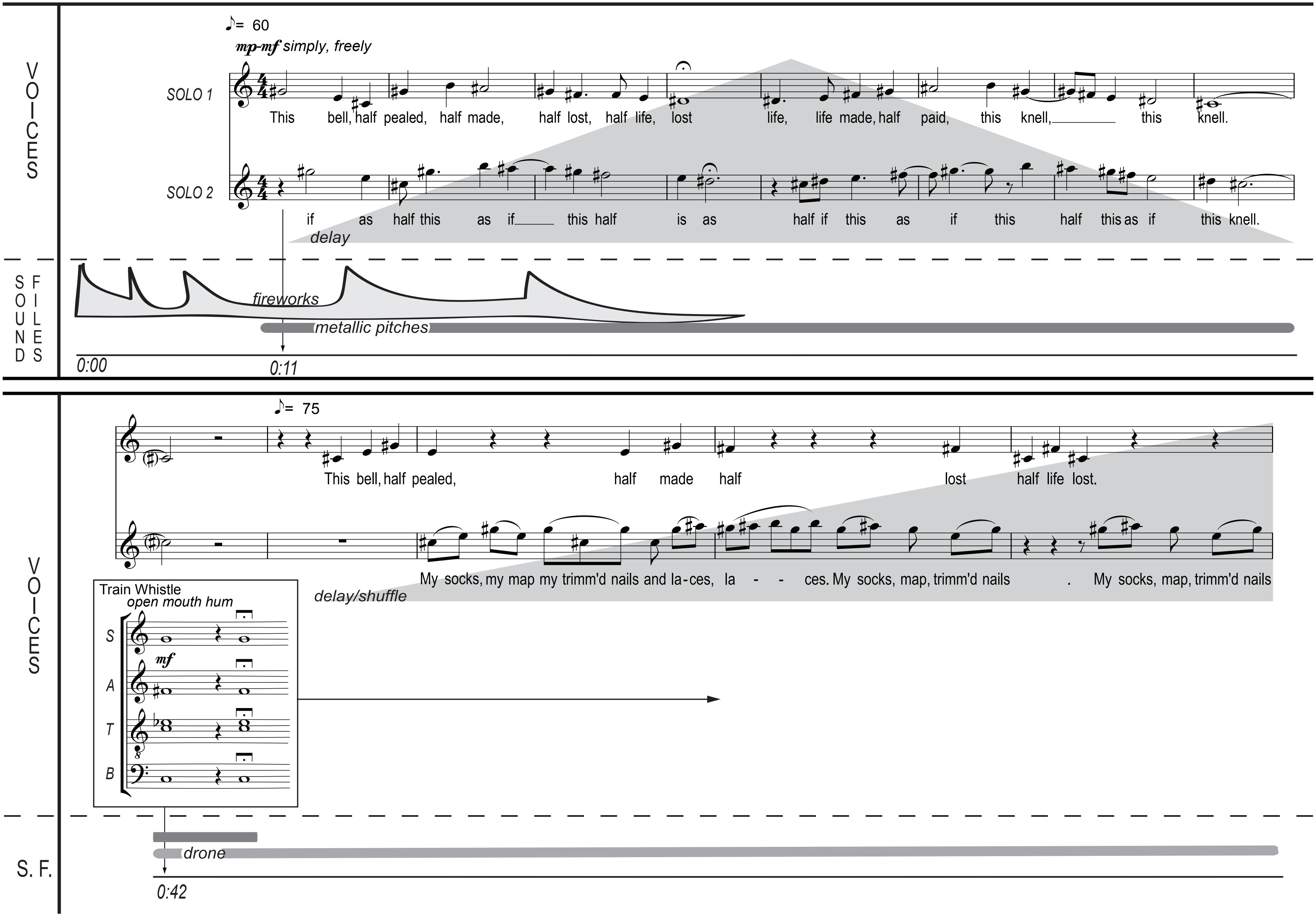
pitches start detuning

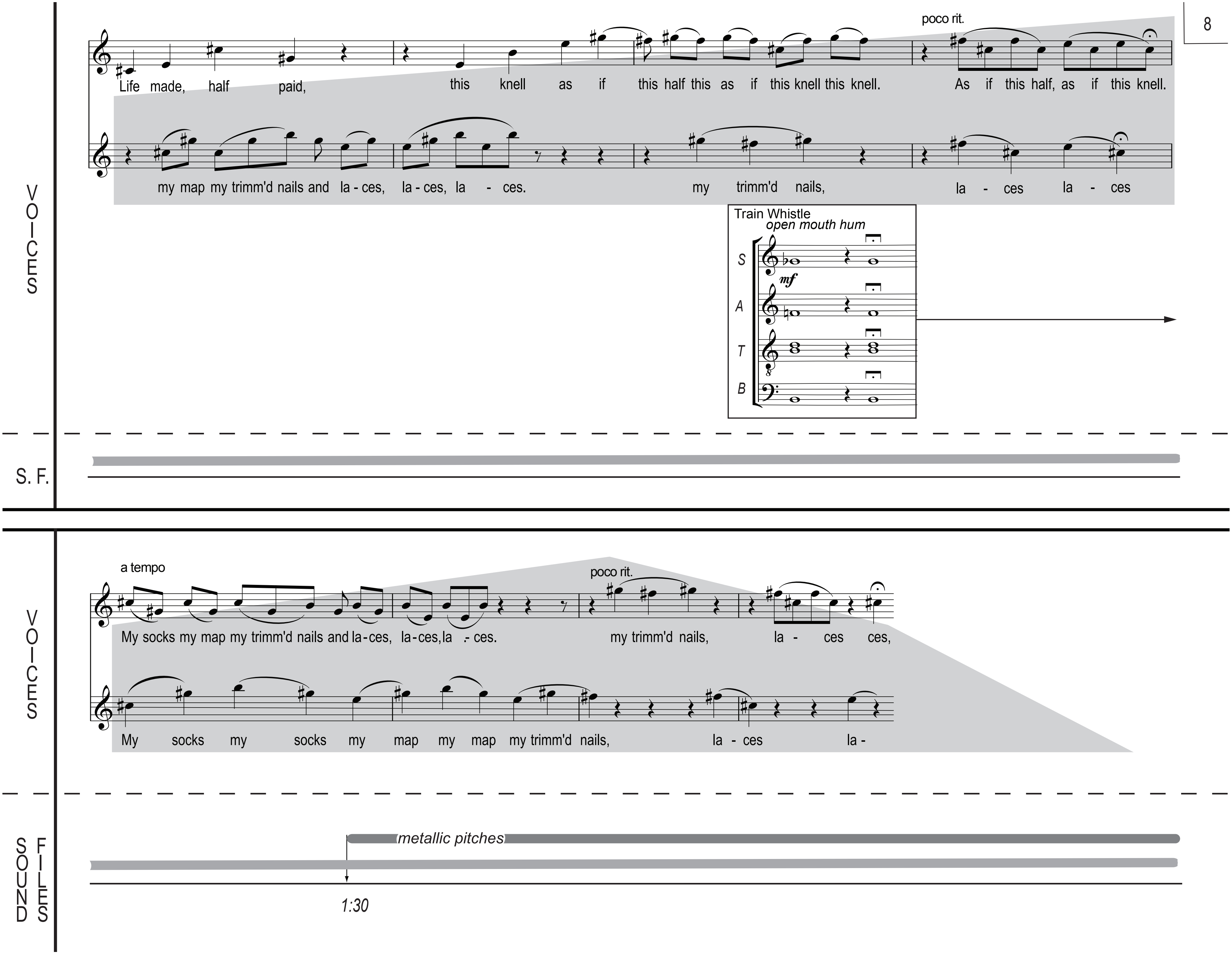
VOX
S. F.
0:13
0:43
VOX
S. F.
1:03
1:10
1:26
VOICES
♪= ca. 100
p
f
mf
S
Nunc vi-de-bi-tis, nunc___ vi-de-bi-tis tur - bam, quae cir-cum-da-bit me, quae cir-cum - da-bit me,___
A
Nunc vi-de-bi-tis, nunc___ vi-de-bi-tis tur - bam, quae cir-cum-da - - bit me,___ quae cir-cum-da - bit
T
Nunc vi-de-bi-tis, nunc,___ vi-de-bi-tis tur - bam, quae cir-cum-da-bit me, quae cir-cum-da-bit me, quae
B
Nunc___ vi-de-bi-tis tur - bam, quae cir-cum-da - bit - me, quae cir-cum-da-bit me, quae cir-cum-da-bit me,
SOUND FILES
1:32

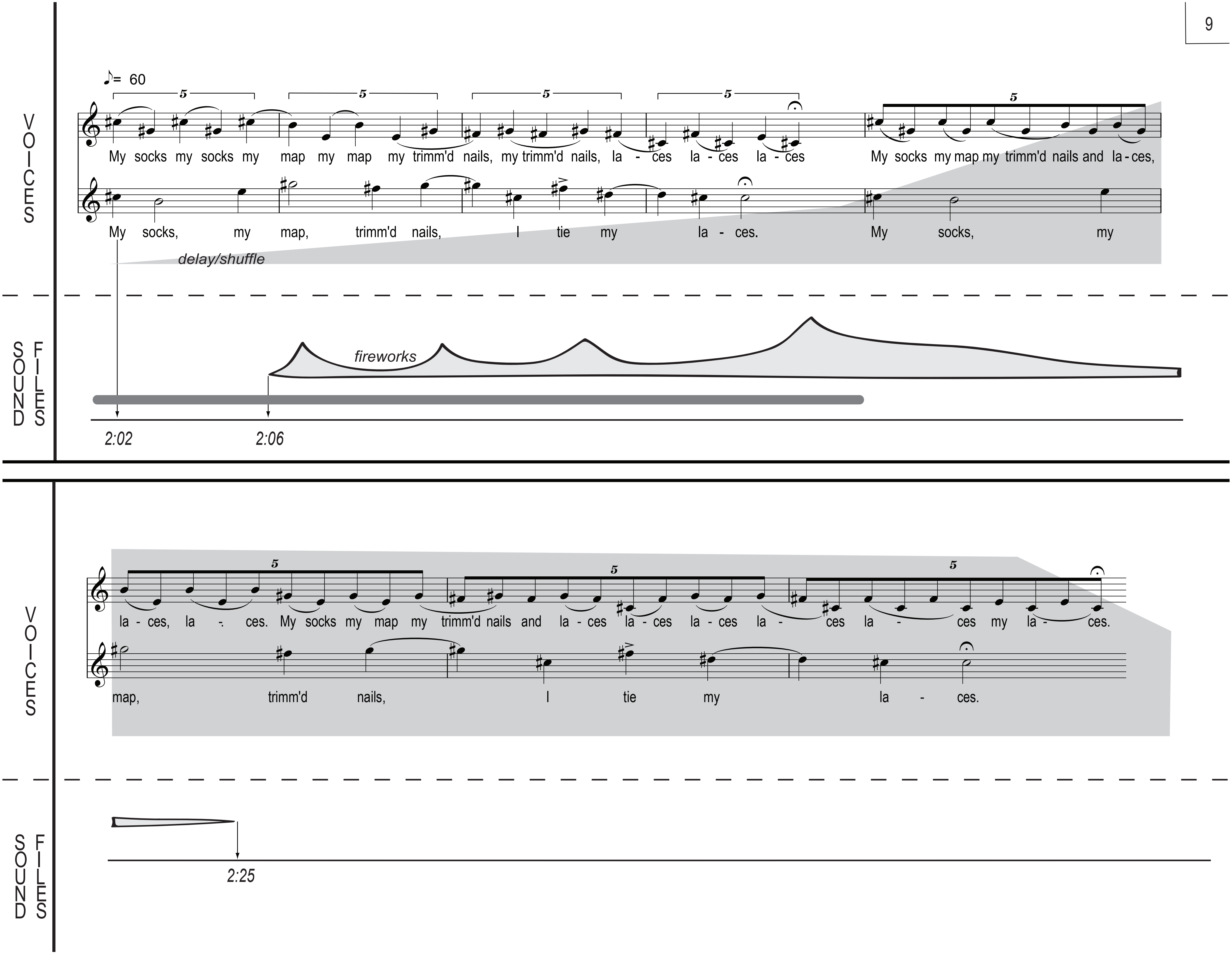

VOICES
vos fu-gam ca-pi-e-tis, vos fu-gam ca-pi-e-tis, vos fu-gam ca-pi-e-tis.
me: vos fu-gam ca-pi-e-tis vos fu-gam ca-pi-e-tis,
cir-cum da-bit me: vos fu-gam ca-pi-e-tis, vos fu-gam ca-pi-e-tis,
quae cir-cum-da-bit me: vos fu-gam ca-pi-e-tis, vos fu-gam ca-pi-e-tis,
SOUND FILES
2:04


mp
VOICES
Et e-go va-dam im-mo-la-ri.
staggered entrances as in 1. & 3.
Et e-go va-dam im-mo-la-ri.
TENOR 1
Et e-go va-dam im-mo-la-ri.
TENOR 2
f
Pro vo-bis.
hold F at end
Et e-go va-dam im-mo-la-ri
S. F.
2:34
3:05
3:20
3:32

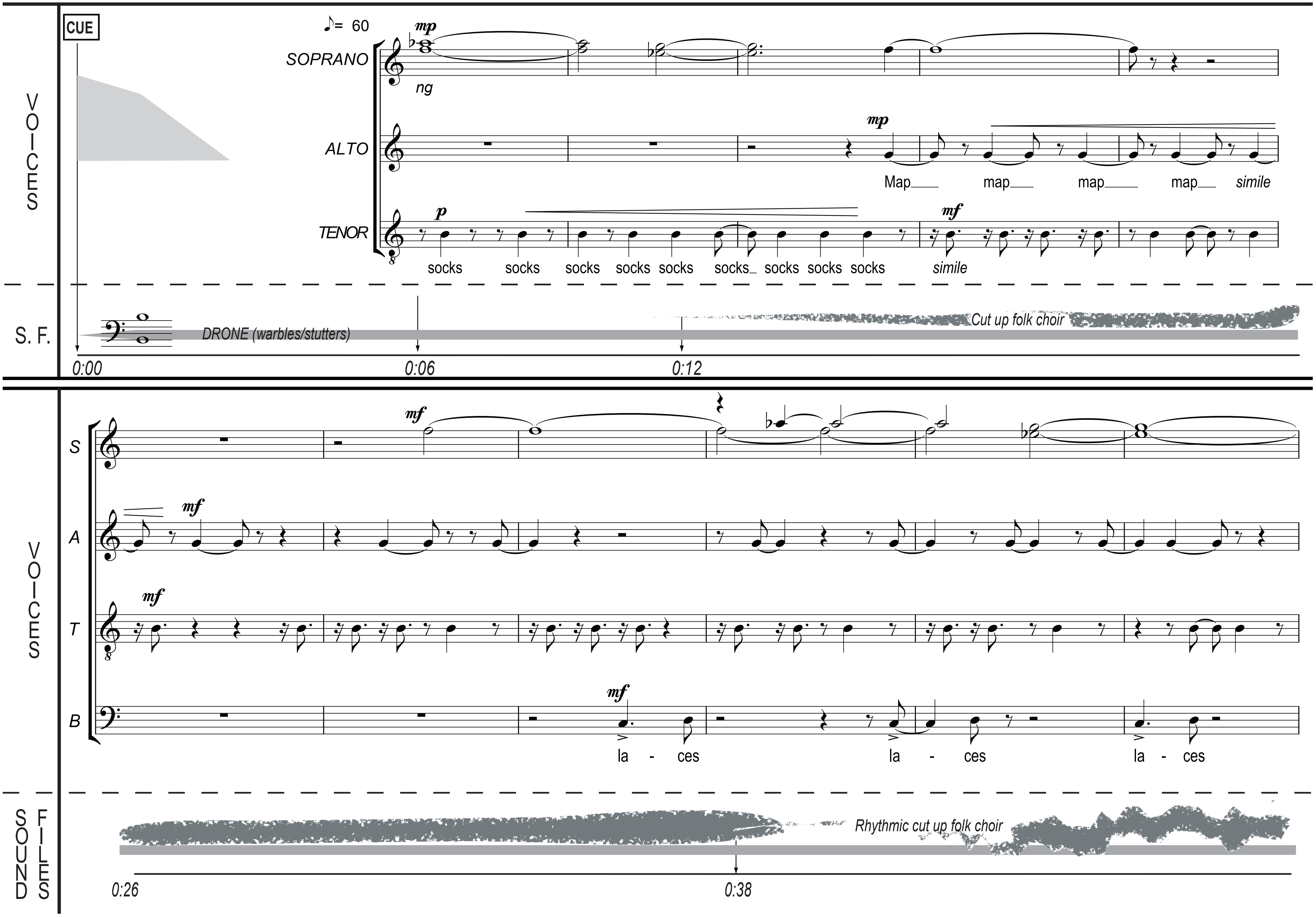
6. the universe pulsates

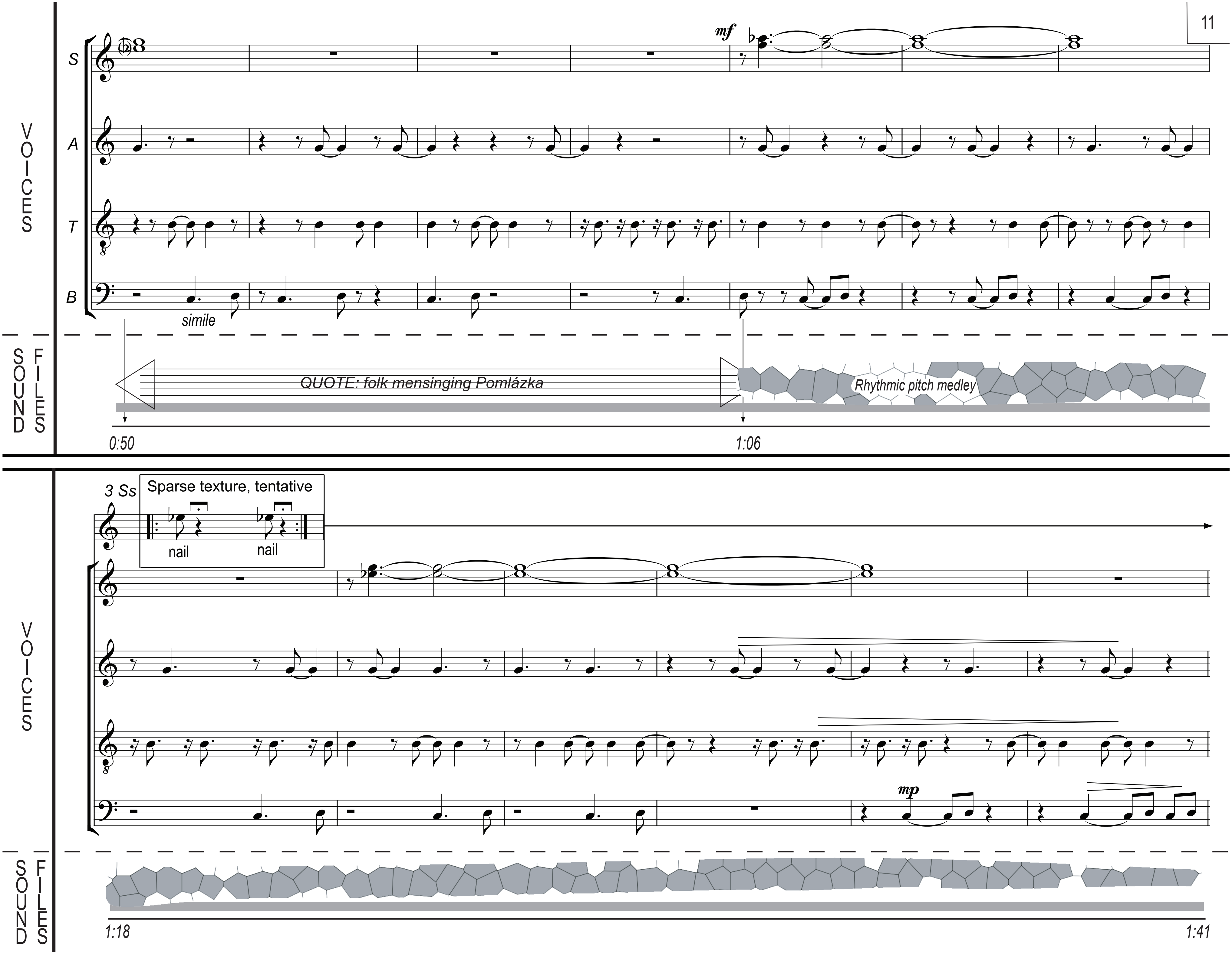

VOICES
♪= 60
mp-mf simply, freely
SOLO 1
This bell, half pealed, half made, half lost, half life, lost life, life made, half paid, this knell, this knell.
SOLO 2
if as half this as if this half is as half if this as if this half this as if this knell.
delay
SOUND FILES
fireworks
metallic pitches
0:00
0:11
VOICES
♪= 75
This bell, half pealed, half made half lost half life lost.
My socks, my map my trimm'd nails and la-ces, la - - ces. My socks, map, trimm'd nails . My socks, map, trimm'd nails
delay/shuffle
Train Whistle
open mouth hum
S
A
T
B
mf
S. F.
drone
0:42

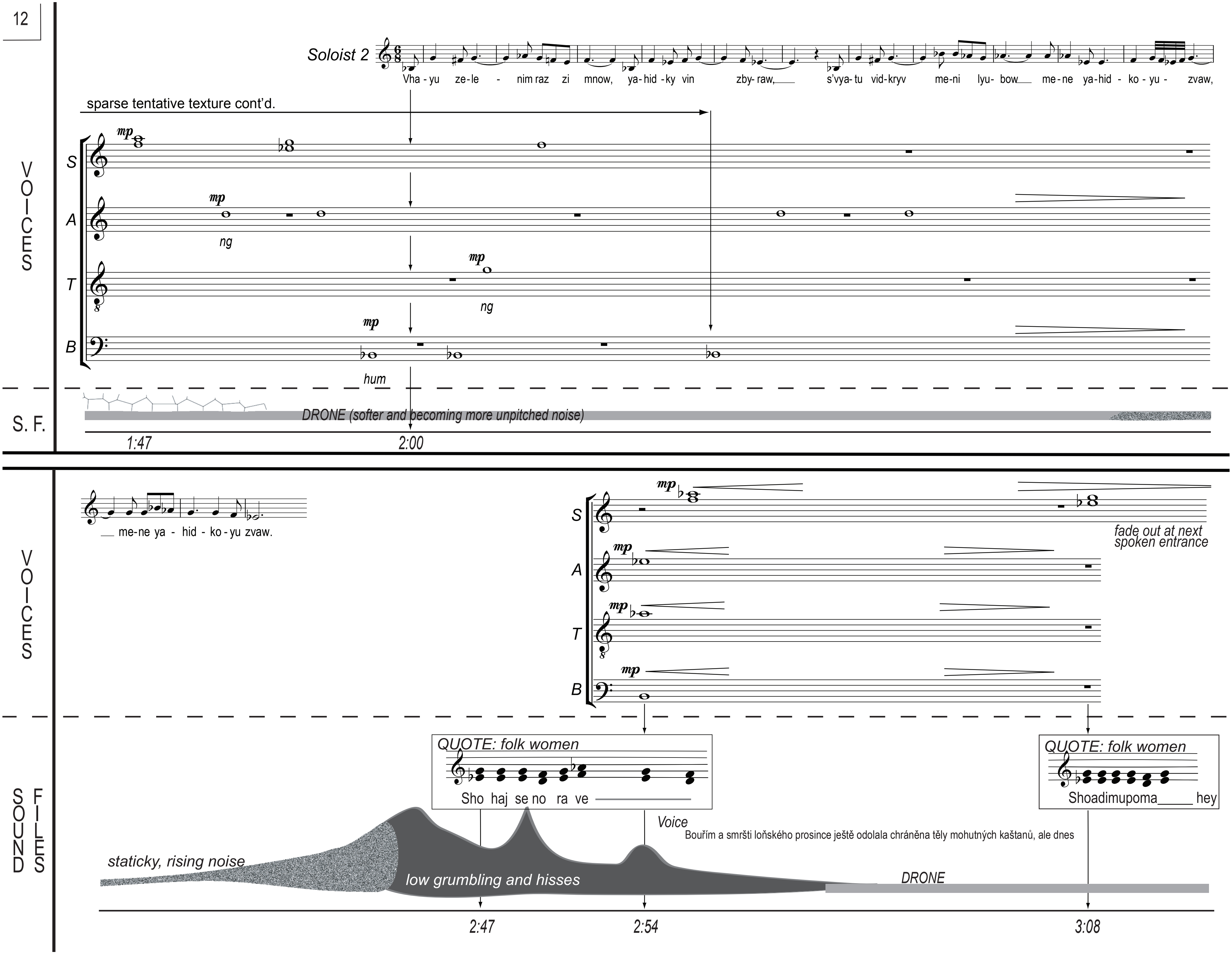

VOICES
poco rit.
Life made, half paid, this knell as if this half this as if this knell this knell. As if this half, as if this knell.
my map my trimm'd nails and la - ces, la - ces, la - ces. my trimm'd nails, la - ces la - ces
Train Whistle
open mouth hum
S
A
T
B
mf
S. F.
VOICES
a tempo
poco rit.
My socks my map my trimm'd nails and la-ces, la-ces,la - ces. my trimm'd nails, la - ces ces,
My socks my socks my map my map my trimm'd nails, la - ces la -
SOUND FILES
metallic pitches
1:30

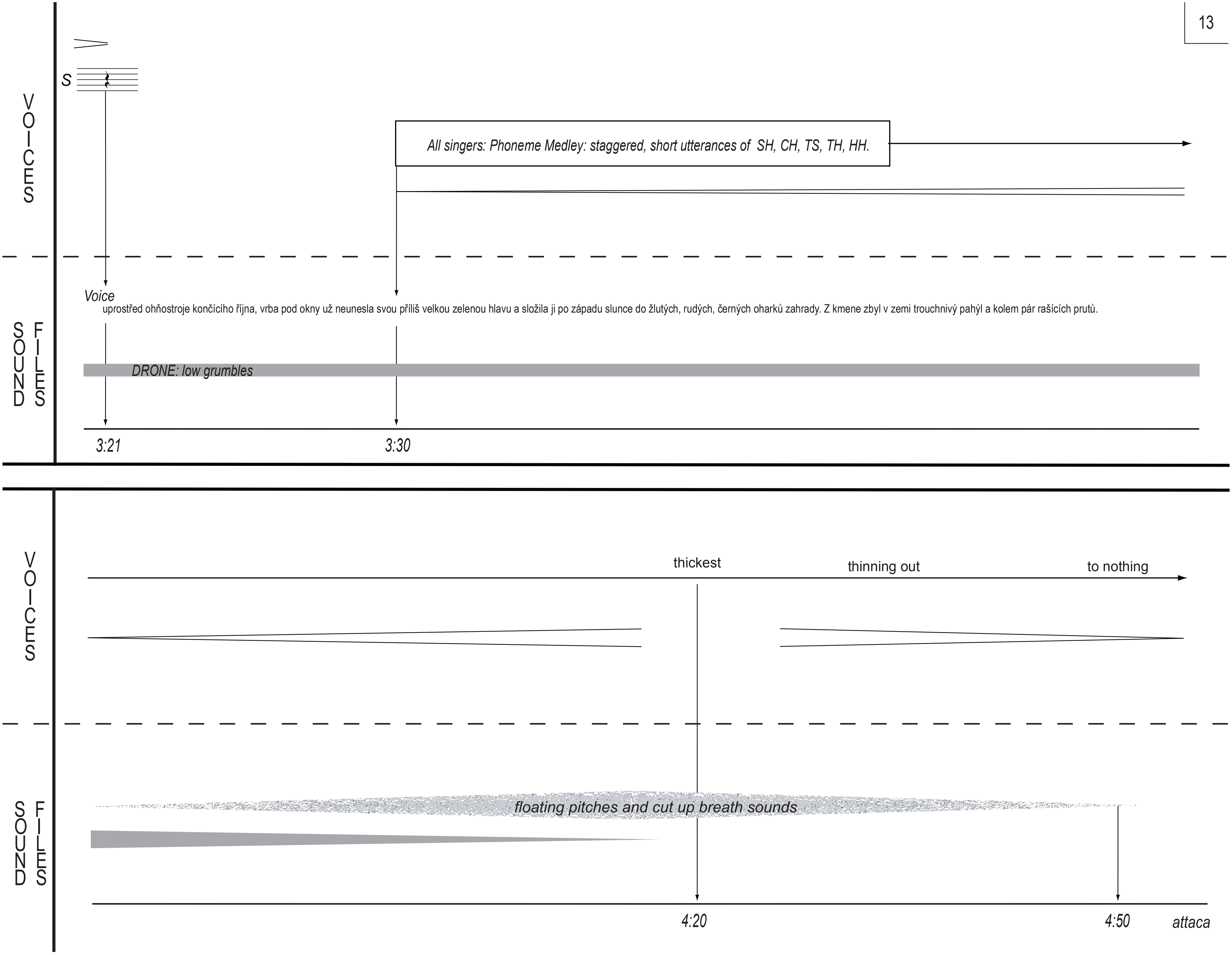

♪= 60
VOICES
My socks my socks my map my map my trimm'd nails, my trimm'd nails, la - ces la - ces la - ces
My socks my map my trimm'd nails and la - ces,
My socks, my map, trimm'd nails, I tie my la - ces.
My socks, my
delay/shuffle
SOUND FILES
fireworks
2:02
2:06
VOICES
la - ces, la - ces. My socks my map my trimm'd nails and la - ces la - ces la - ces la - ces la - ces my la - ces.
map, trimm'd nails, I tie my la - ces.
SOUND FILES
2:25

7. rejoice

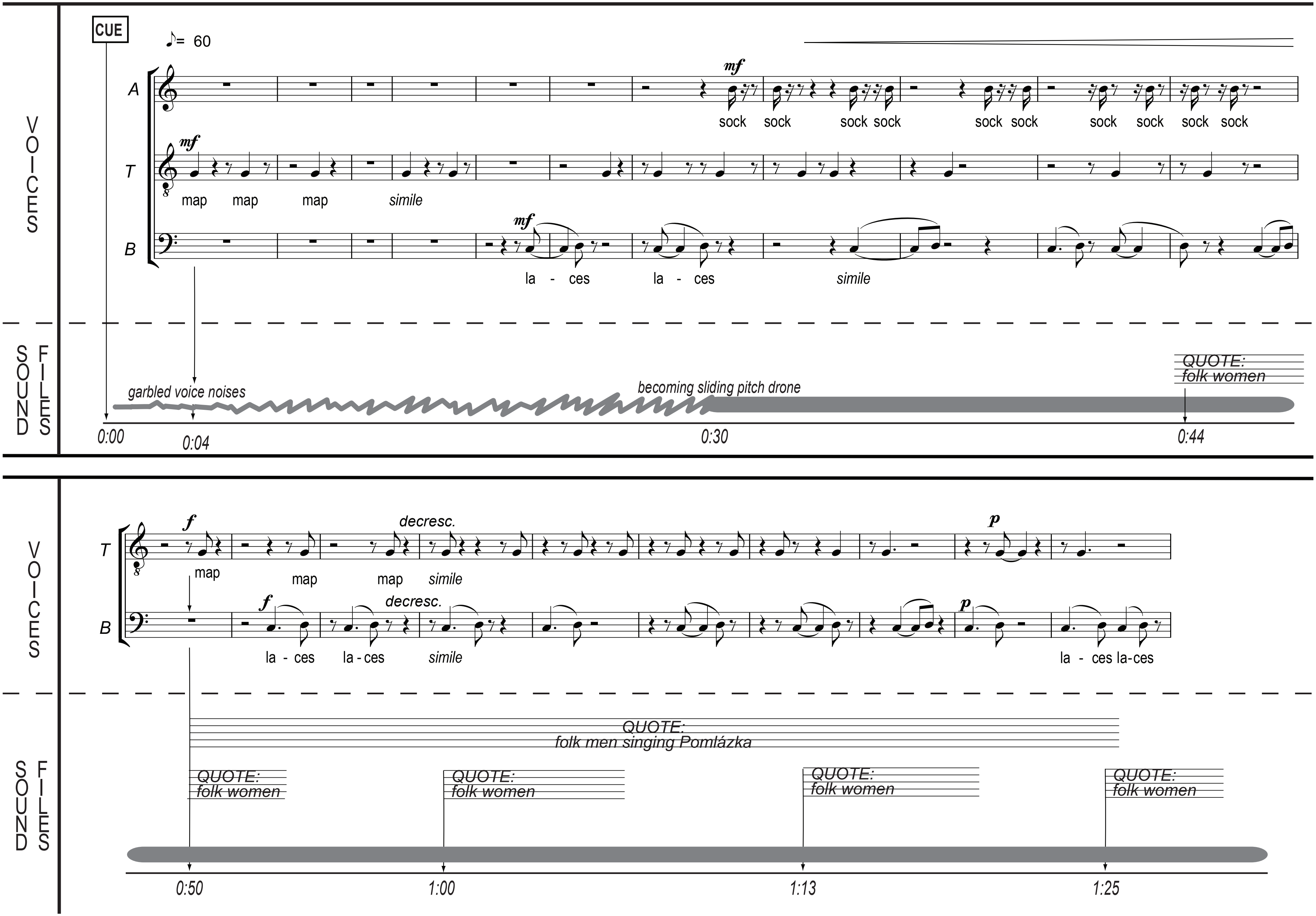

CUE
♪= 60
VOICES
SOPRANO
mp
ng
ALTO
mp
Map___ map___ map___ map___ simile
TENOR
p
mf
socks socks socks socks socks socks_ socks socks socks
simile
S. F.
DRONE (warbles/stutters)
Cut up folk choir
0:00
0:06
0:12
VOICES
S
mf
A
mf
T
mf
B
mf
la - ces la - ces la - ces
SOUND FILES
Rhythmic cut up folk choir
0:26
0:38


VOICES
S
A
T
B
mf
simile
SOUND FILES
QUOTE: folk mensinging Pomlázka
Rhythmic pitch medley
0:50
1:06
3 Ss
Sparse texture, tentative
nail
nail
VOICES
mp
SOUND FILES
1:18
1:41

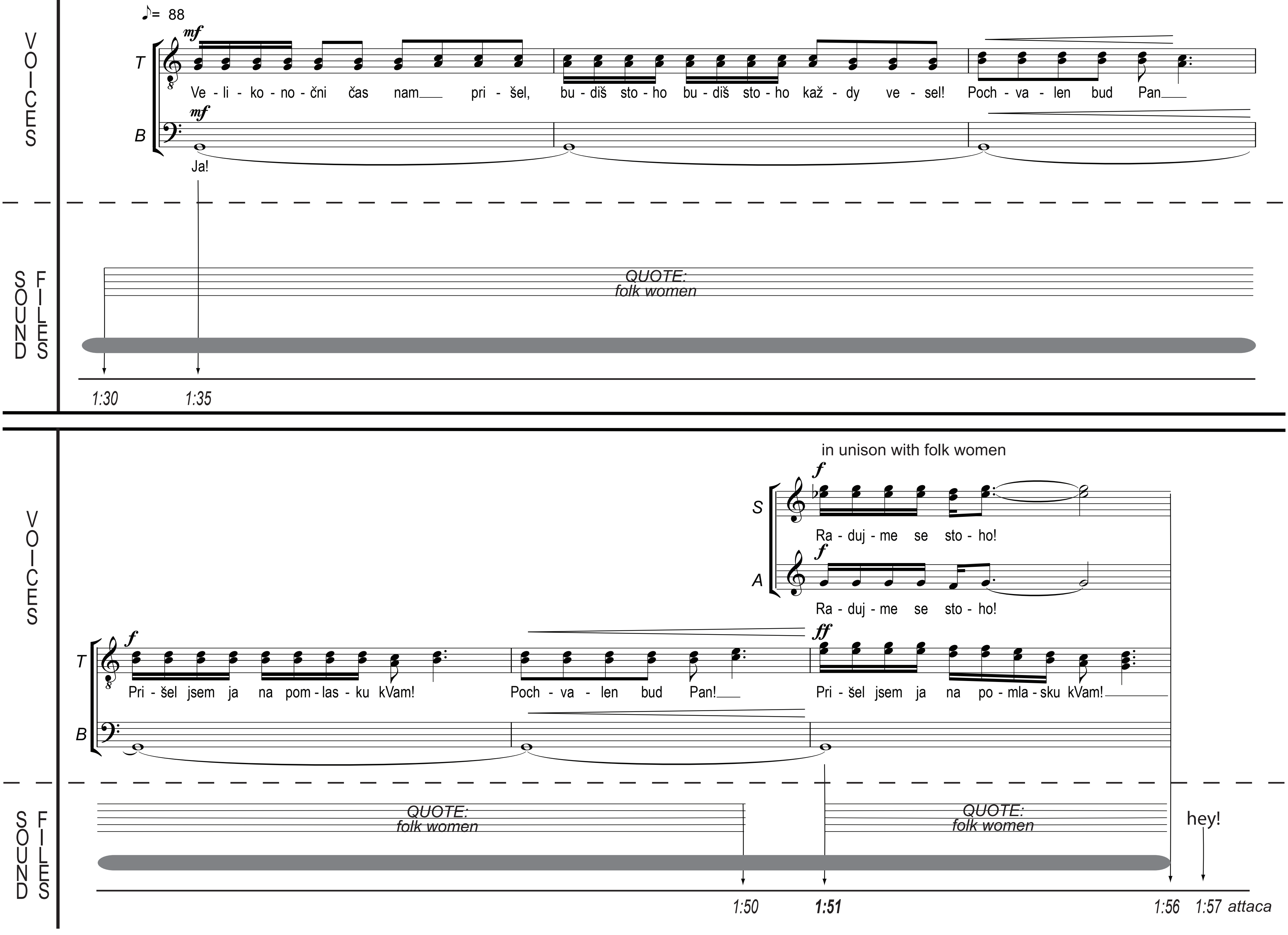

Soloist 2
Vha - yu ze-le - nim raz zi mnow, ya-hid -ky vin zby- raw,___ s'vya- tu vid-kryv me-ni lyu- bow___ me-ne ya-hid - ko - yu - zvaw,
sparse tentative texture cont'd.
VOICES
S
A
T
B
mp
ng
hum
S. F.
DRONE (softer and becoming more unpitched noise)
1:47
2:00
___ me-ne ya - hid - ko - yu zvaw.
VOICES
S
A
T
B
mp
fade out at next spoken entrance
SOUND FILES
QUOTE: folk women
Sho haj se no ra ve
Voice
Bouřím a smršti loňského prosince ještě odolala chráněna těly mohutných kaštanů, ale dnes
QUOTE: folk women
Shoadimupoma_____ hey
staticky, rising noise
low grumbling and hisses
DRONE
2:47
2:54
3:08


VOICES
S
All singers: Phoneme Medley: staggered, short utterances of SH, CH, TS, TH, HH.
SOUND FILES
Voice
uprostřed ohňostroje končícího října, vrba pod okny už neunesla svou příliš velkou zelenou hlavu a složila ji po západu slunce do žlutých, rudých, černých oharků zahrady. Z kmene zbyl v zemi trouchnivý pahýl a kolem pár rašících prutů.
DRONE: low grumbles
3:21
3:30
VOICES
thickest
thinning out
to nothing
SOUND FILES
floating pitches and cut up breath sounds
4:20
4:50
attaca

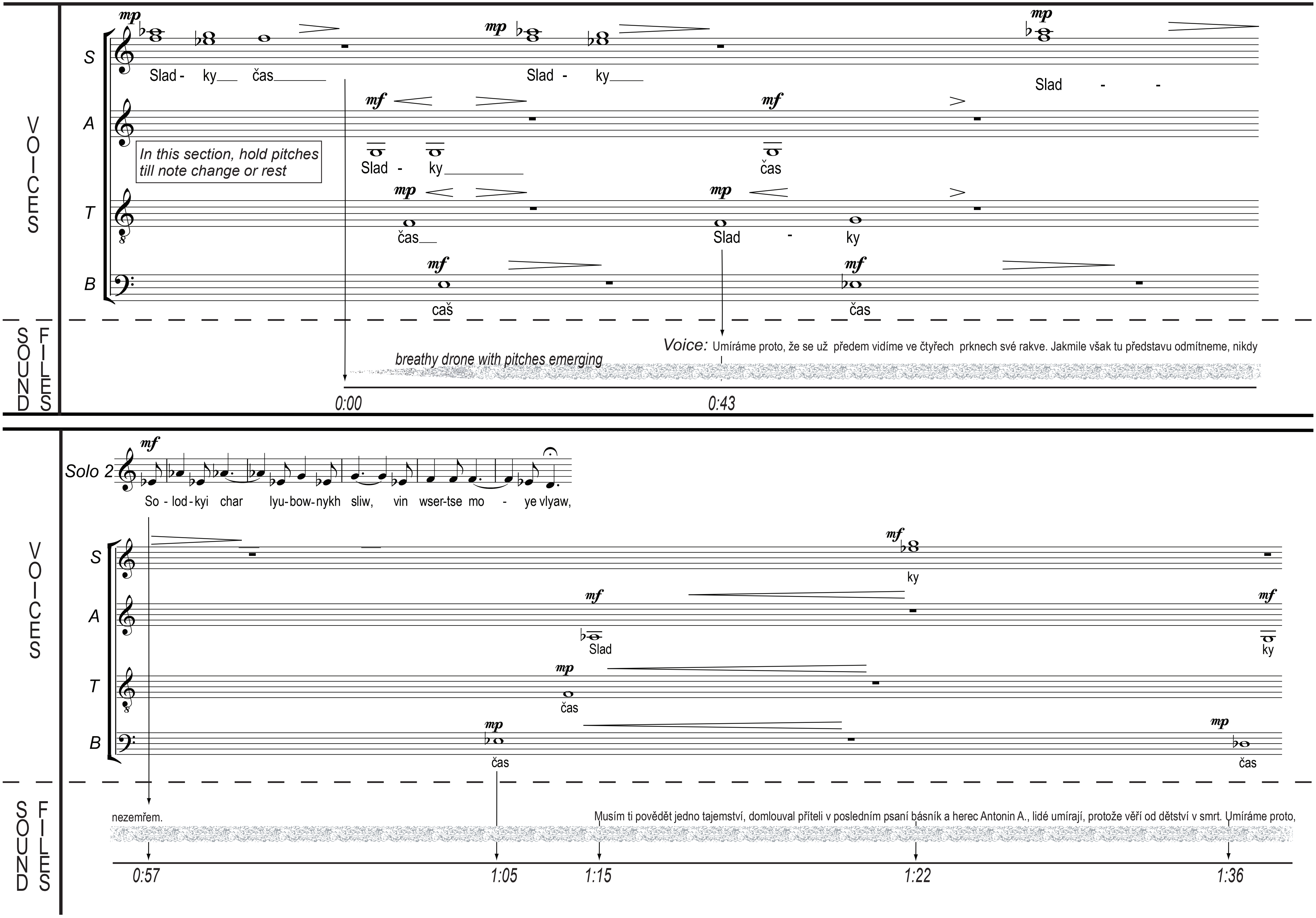
8. be glad

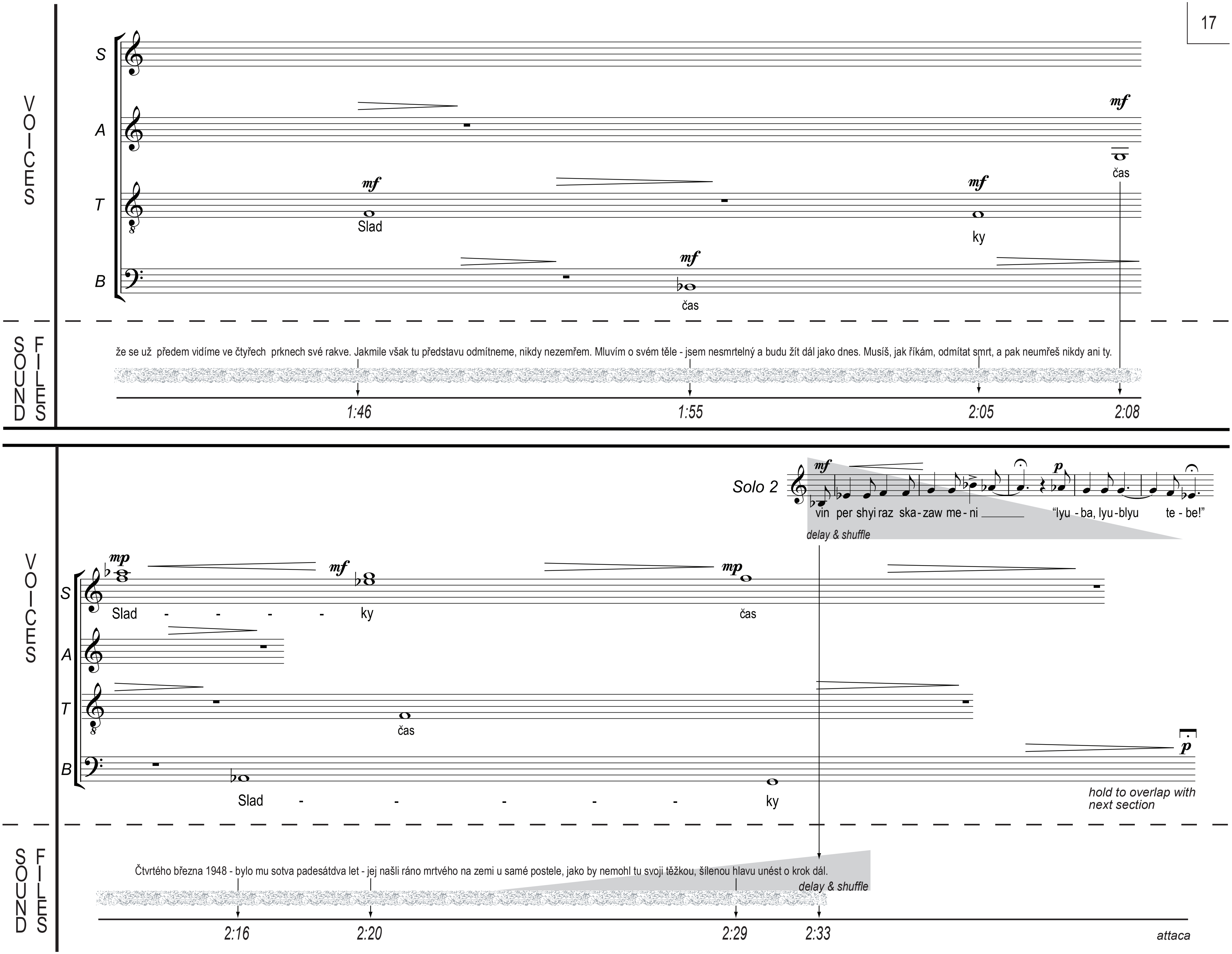

VOICES
SOUND FILES
CUE
♪= 60
A
T
B
mf
sock sock sock sock sock sock sock sock sock sock
mf
map map map simile
mf
la - ces la - ces simile
garbled voice noises
becoming sliding pitch drone
QUOTE:
folk women
0:00
0:04
0:30
0:44
VOICES
SOUND FILES
T
B
f
map map map simile
decresc.
p
f
la - ces la - ces simile
decresc.
p
la - ces la-ces
QUOTE:
folk men singing Pomlázka
QUOTE:
folk women
QUOTE:
folk women
QUOTE:
folk women
QUOTE:
folk women
0:50
1:00
1:13
1:25

Pomlázka


♪= 88
VOICES
T
B
mf
Ve - li - ko - no - čni čas nam___ pri - šel, bu - diš sto - ho bu - diš sto - ho kaž - dy ve - sel! Poch - va - len bud Pan___
mf
Ja!
SOUND FILES
QUOTE:
folk women
1:30
1:35
VOICES
in unison with folk women
S
A
f
Ra - duj - me se sto - ho!
f
Ra - duj - me se sto - ho!
T
B
f
Pri - šel jsem ja na pom - las - ku kVam! Poch - va - len bud Pan!___
ff
Pri - šel jsem ja na po - mla - sku kVam!___
SOUND FILES
QUOTE:
folk women
QUOTE:
folk women
hey!
1:50
1:51
1:56
1:57
attaca

9. take sweet time

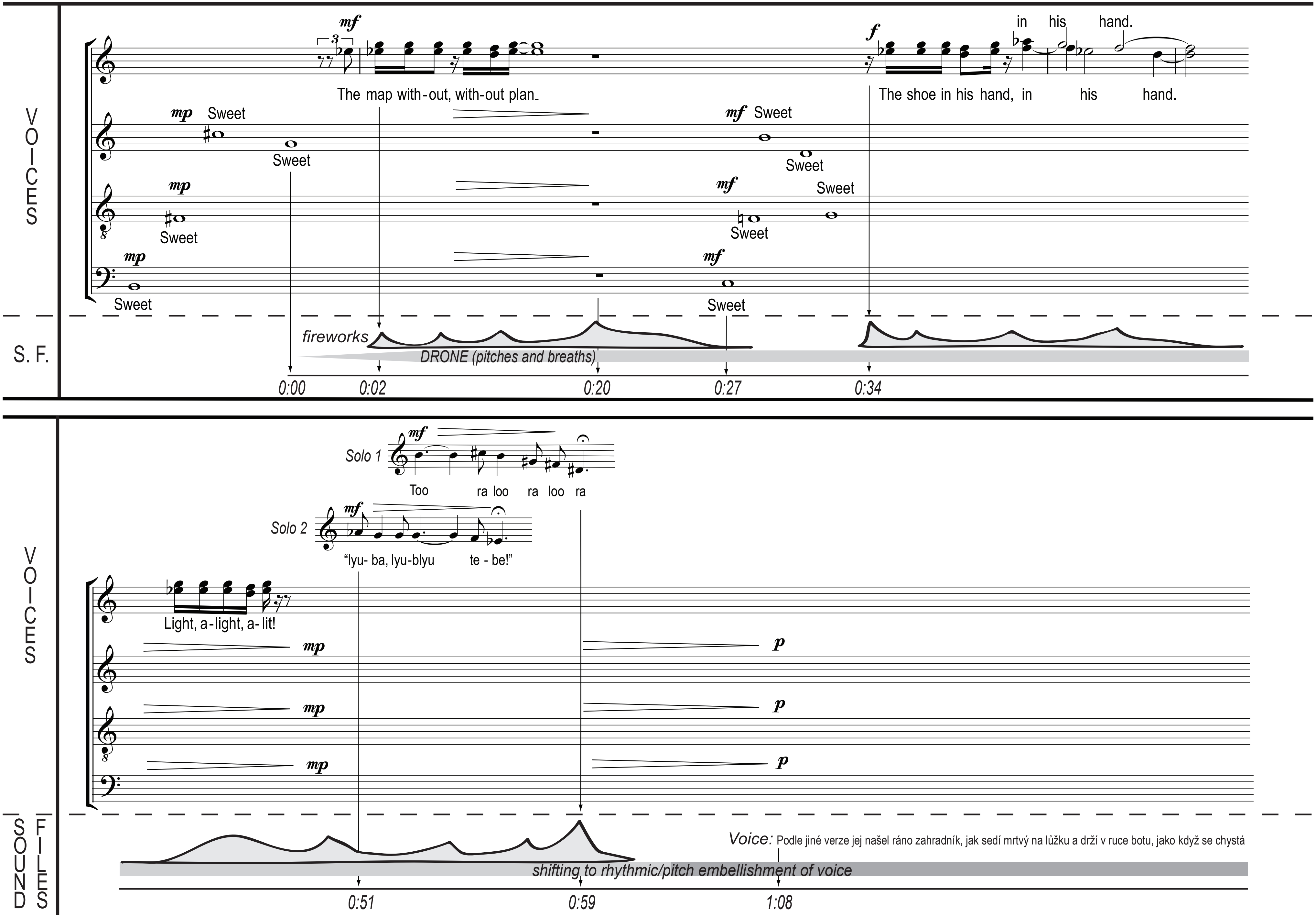

VOICES
S
A
T
B
mp
Slad - ky čas
In this section, hold pitches till note change or rest
mf
Slad - ky
mp
čas
caš
mf
Slad - ky
čas
Slad - ky
čas
Slad - -
SOUND FILES
breathy drone with pitches emerging
Voice: Umíráme proto, že se už předem vidíme ve čtyřech prknech své rakve. Jakmile však tu představu odmítneme, nikdy
0:00
0:43
Solo 2
So - lod - kyi char lyu - bow - nykh sliw, vin wser - tse mo - ye vlyaw,
Slad
čas
čas
ky
ky
čas
nezemřem.
Musím ti povědět jedno tajemství, domlouval příteli v posledním psaní básník a herec Antonin A., lidé umírají, protože věří od dětství v smrt. Umíráme proto,
0:57
1:05
1:15
1:22
1:36

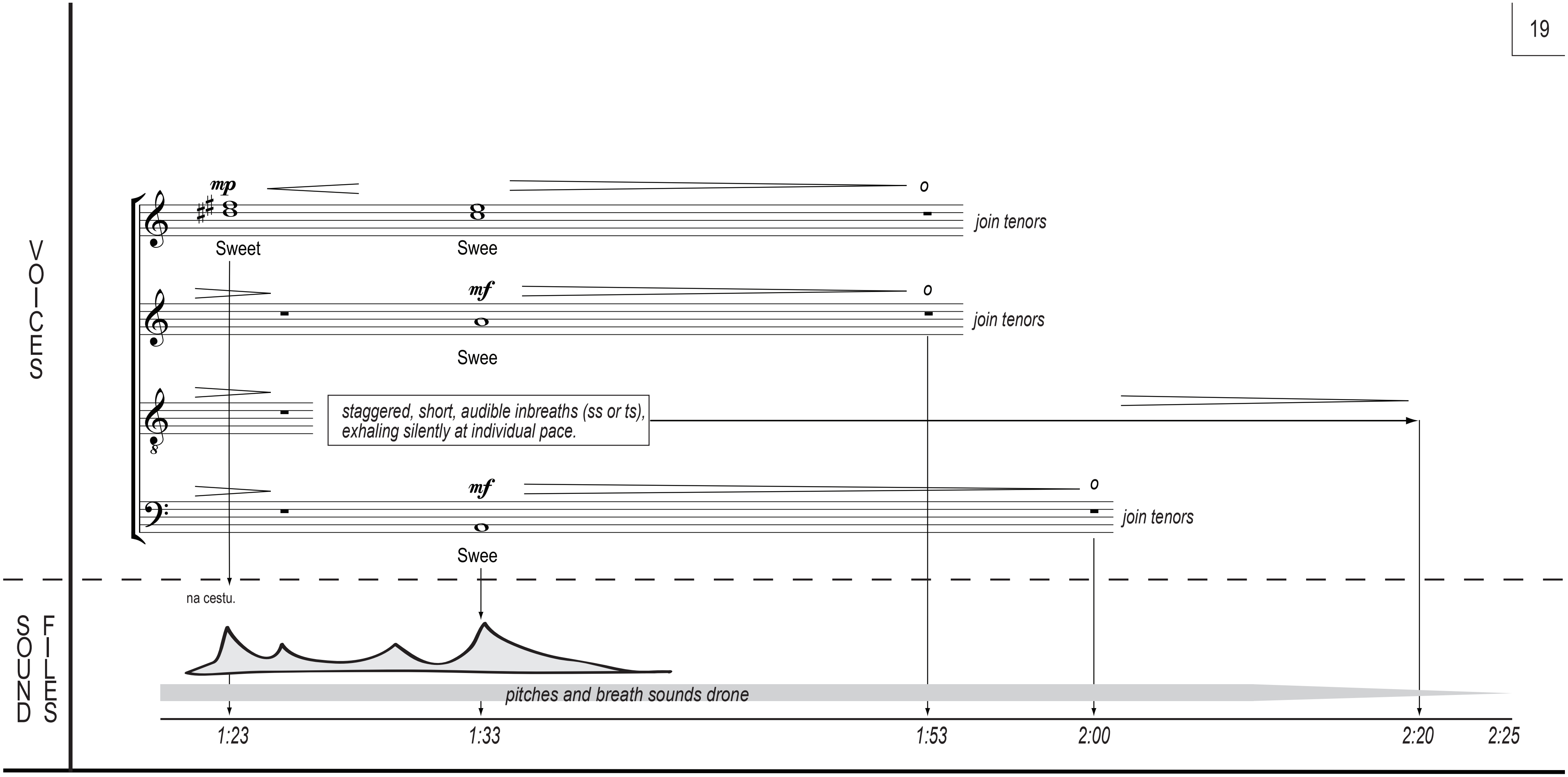

VOICES
S
A
T
B
mf
Slad
mf
čas
mf
ky
mf
čas
SOUND FILES
1:46
1:55
2:05
2:08
Solo 2
mf
p
vin per shyi raz ska - zaw me - ni
"lyu - ba, lyu - blyu te - be!"
delay & shuffle
VOICES
S
A
T
B
mp
mf
mp
Slad - - - - ky
čas
čas
Slad - - - - - - ky
p
hold to overlap with next section
SOUND FILES
delay & shuffle
2:16
2:20
2:29
2:33
attaca

že se už předem vidíme ve čtyřech prknech své rakve. Jakmile však tu představu odmítneme, nikdy nezemřem. Mluvím o svém těle - jsem nesmrtelný a budu žít dál jako dnes. Musíš, jak říkám, odmítat smrt, a pak neumřeš nikdy ani ty.

Čtvrtého března 1948 - bylo mu sotva padesátdva let - jej našli ráno mrtvého na zemi u samé postele, jako by nemohl tu svoji těžkou, šílenou hlavu unést o krok dál.

10. and fly away


VOICES
mf
3
The map with-out, with-out plan.
f
The shoe in his hand, in his hand.
in his hand.
mp Sweet
Sweet
mf Sweet
Sweet
mp
Sweet
mf
Sweet
Sweet
mp
Sweet
mf
Sweet
S. F.
fireworks
DRONE (pitches and breaths)
0:00
0:02
0:20
0:27
0:34
Solo 1
mf
Too ra loo ra loo ra
Solo 2
mf
"lyu- ba, lyu-blyu te - be!"
VOICES
Light, a-light, a-lit!
mp
p
mp
p
mp
p
SOUND FILES
Voice: Podle jiné verze jej našel ráno zahradník, jak sedí mrtvý na lůžku a drží v ruce botu, jako když se chystá
shifting to rhythmic/pitch embellishment of voice
0:51
0:59
1:08


VOICES
mp
Sweet
Swee
join tenors
mf
Swee
join tenors
staggered, short, audible inbreaths (ss or ts), exhaling silently at individual pace.
mf
Swee
join tenors
SOUND FILES
na cestu.
pitches and breath sounds drone
1:23
1:33
1:53
2:00
2:20
2:25

With much gratitude to Timothy Shantz, Katy Warke and Nina Hornjatkevyc for their time, their ideas and their musicality.
This piece is dedicated to Robert Normandeau.

Malý velký svět

for piano and electronics

Terri Hron
2013

Malý velký svět (Small big World) for piano & electronics is written for Luciane Cardassi, Rosabel Choi and Katherine Dowling. I met each of these pianists at the Banff Centre during my residencies there, and was struck by their individual approaches and sound in performing contemporary repertoire. In my desire to write pieces for specific individuals, I enjoyed the challenge of writing a piece that features three individuals on the same instrument. They take turns being the soloist, and their solos emphasize their particular approach to the instrument.

The piece revolves around childhood and games, as well as the playful ways children use and learn to play the piano. There are musical allusions to and quotations of Robert Schumann’s *Waldszenen*, Franz Liszt’s *Sonata in b minor*, Alban Berg’s *Piano Sonata Opus 1*, Béla Bartók's *For Children*, Francis Dhomont's *Forêt Profonde*, and Linda Catlin Smith’s *Thought and Desire*. I also quote all three pianists, whose improvisations I often used verbatim.

This piece is dedicated to my father, Franta.

Malý velký svět is most effectively rehearsed using the videoscores, which combine piano notation, playback of the soundworld and timing cues.

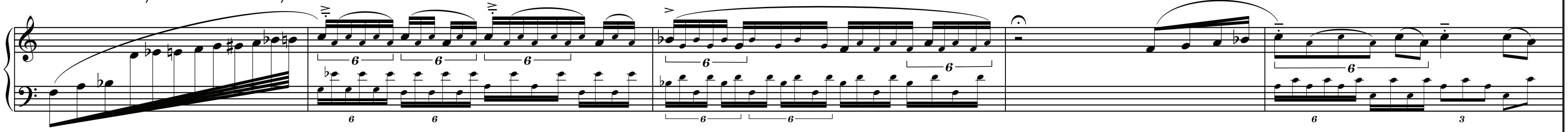
In performance, an electronics performer should be present to amplify the piano, preferably with miniature microphones (DPA 4060 recommended) placed inside the piano. This performer may also add live electronics.

More information about the piece and the collaborative process that led up to it is available in the hyperscores.

The hyperscores and videoscores are available at www.birdonawire.ca/mvs/
Live electronics available from the composer.

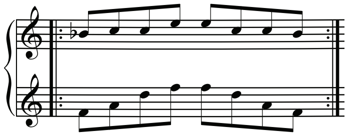
TWINKLE and LOOP for Rosabel

A seductive yet melancholy overture



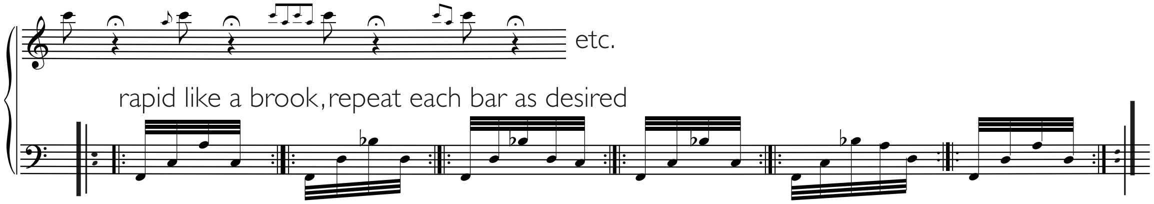
from 0:08 to ca. 0:28

B scherzo sound
omit "random" LH/RH pairs to create
a playful yet unpredictable texture



from ca. 0:30 to ca. 0:50

C twinkling above, varying the number of apoggiaturas, creating different constellations of notes.
vary dynamics and speed over time.

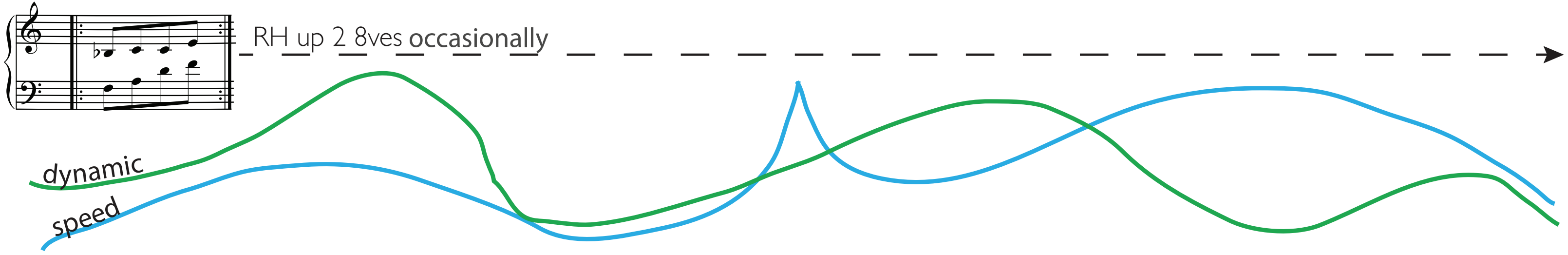


etc.

rapid like a brook, repeat each bar as desired

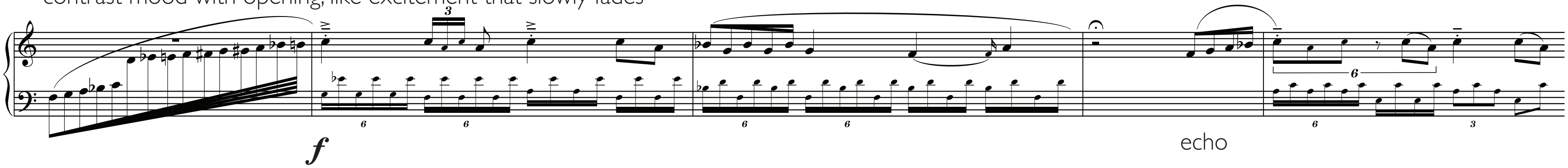
for a bit less than a minute from ca. 0:55

D twirling and dancing



for about 45s from ca 1:55

E contrast mood with opening, like excitement that slowly fades



echo

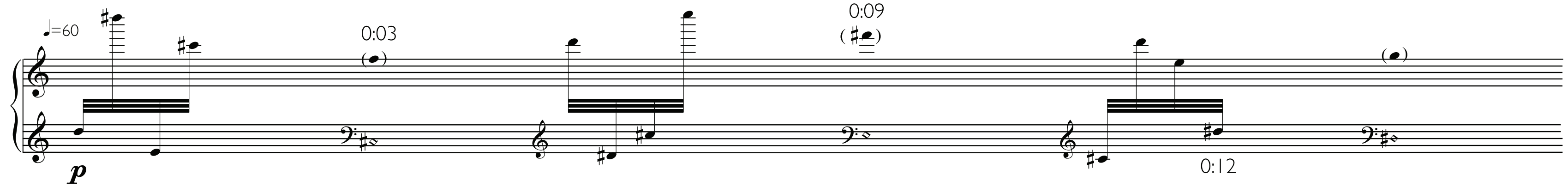
2:48

3:02

FATE

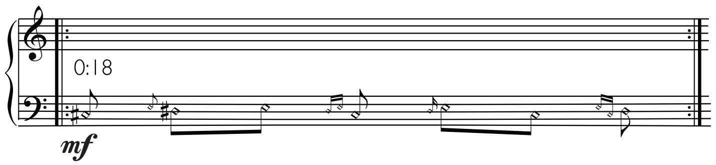
for Katherine

A



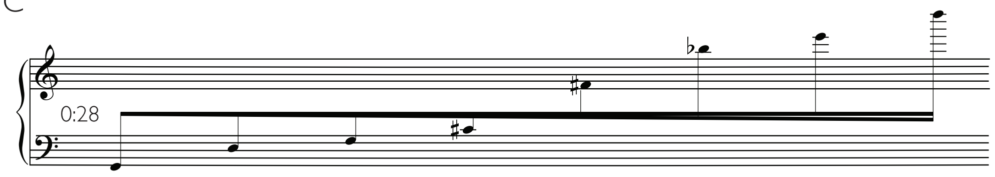
use pedal creatively throughout the whole movement
⋄ harmonics to be played with fingers on strings, sounding pitch in ( )
timings indicate possible synchronicities with elements on the soundtrack

B



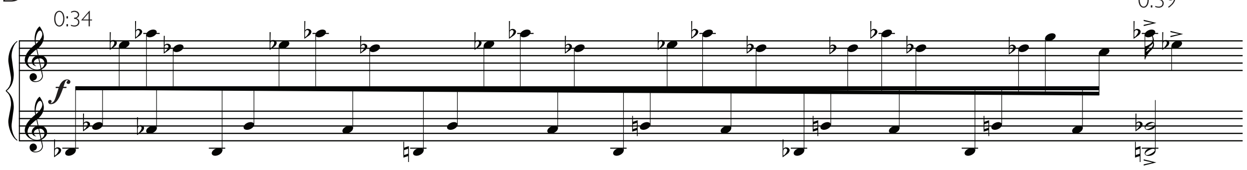
stop C#, D# and E strings around the same harmonic node (RH)
playing keys in rhythm (LH) resulting in pitch ad lib.

C



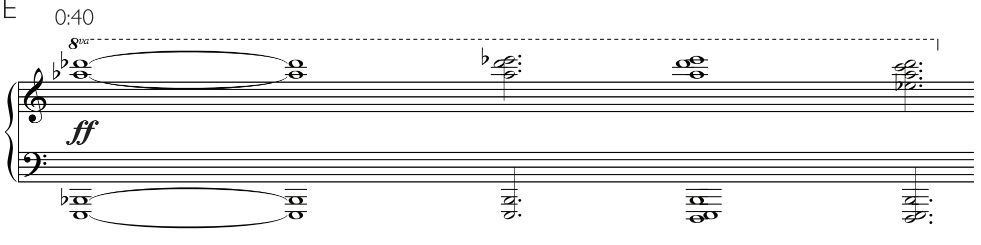
stumbling, with uneven, increasing dynamic

D



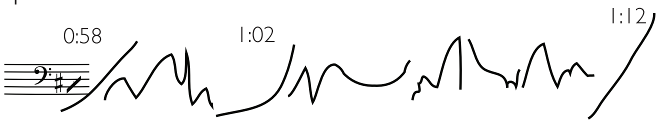
doggedly, in the dark, with an angular, somewhat loud sound

E



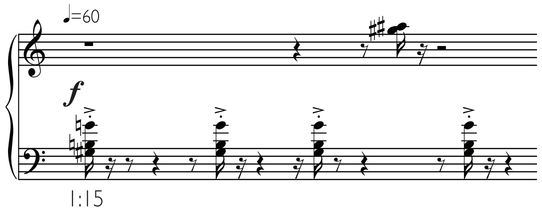
unexpectedly, falling into the keys in changing ways but with a heavy dynamic

F



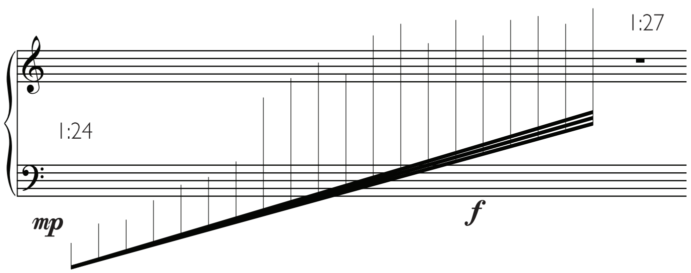
interrupt resonance of previous box
⁄ = scraping string with plastic card
intermittent pedal last long scrape should resonate

G



interrupt F resonance with sharp,
dry bites**, dialoguing with violin**

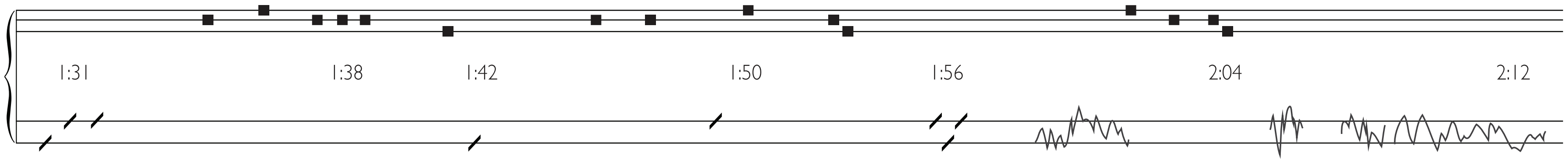
H



arpeggio using whole keyboard, speeding up unevenly

I

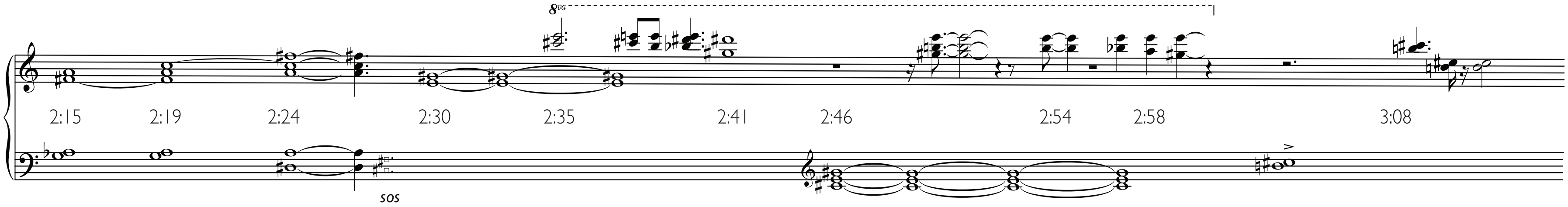
knocking with mallet on different bars/wood, pitch relative


1:31
1:38
1:42
1:50
1:56
2:04
2:12

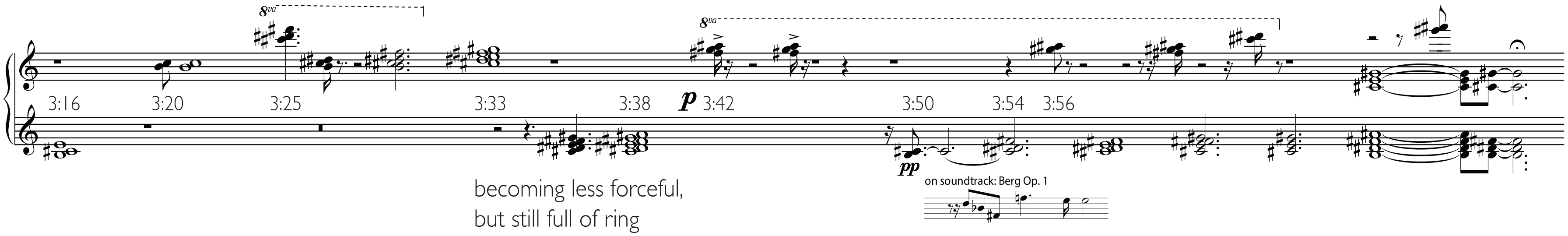
scraping bottom 2 strings with card
let ring

excite low strings by rolling mallet
or stroking with wire brush

J

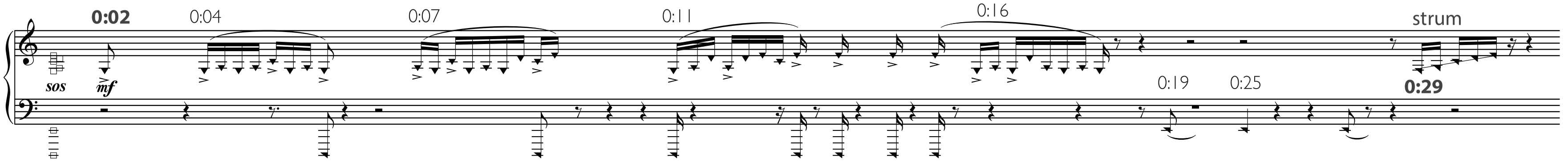

8va
2:15
2:19
2:24
2:30
2:35
2:41
2:46
2:54
2:58
3:08
sos

explore voicing with bright, ringing sound
penetrating, emerging dynamic


8va
8va
3:16
3:20
3:25
3:33
3:38
p
3:42
3:50
3:54
3:56
pp
on soundtrack: Berg Op. 1

becoming less forceful,
but still full of ring

A

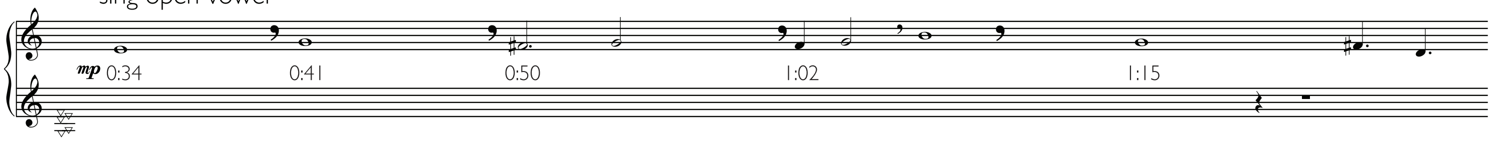

0:02
0:04
0:07
0:11
0:16
strum
sos
mf
0:19
0:25
0:29

▾ = play string with mallet
◥ = stroke string with plastic card

KNOCKING for Luciane

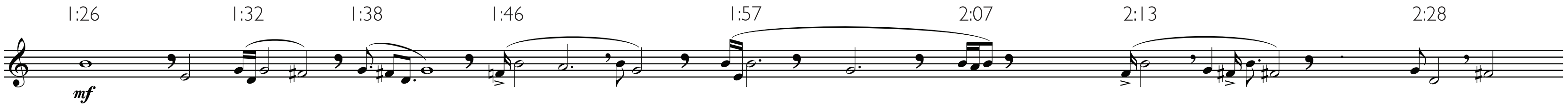
B

sing open vowel


mp
0:34
0:41
0:50
1:02
1:15

create texture of two-note tremolo swells using given notes,
the gesture can be independent of the voice, dynamic between *mp* & *f*

C

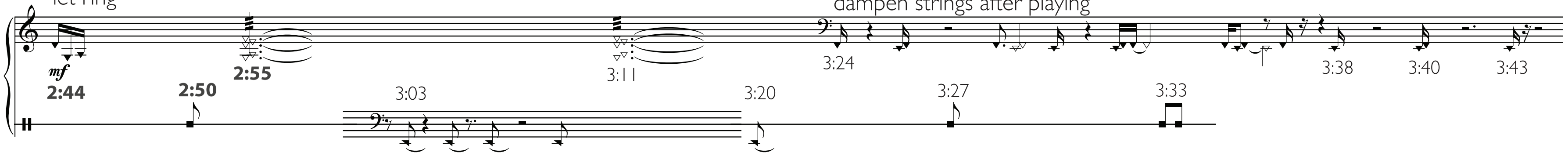

1:26
1:32
1:38
1:46
1:57
2:07
2:13
2:28
mf

sing, projecting more into the instrument

D

let ring

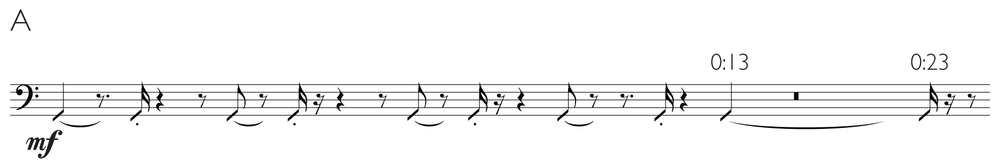
dampen strings after playing


mf
2:44
2:50
2:55
3:03
3:11
3:20
3:24
3:27
3:33
3:38
3:40
3:43

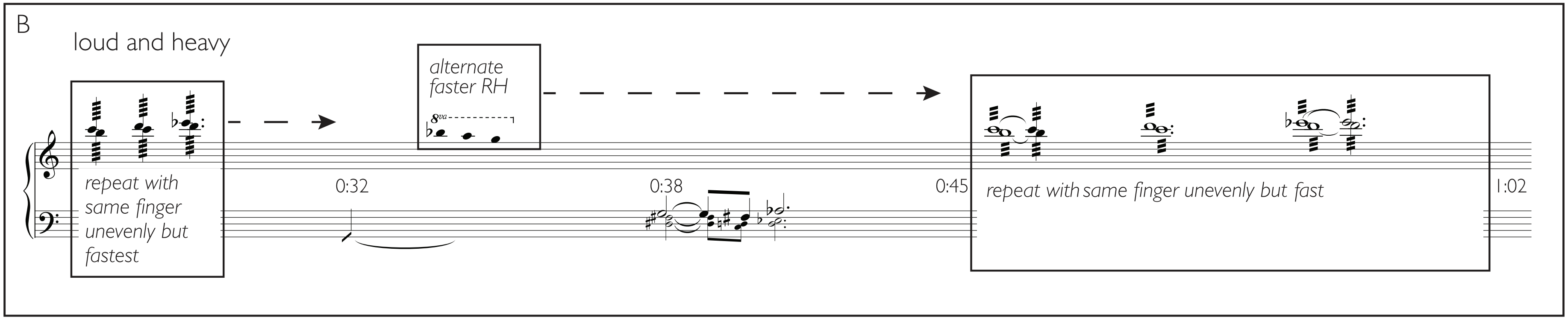
▪ = play beams or wood
with mallet or stick

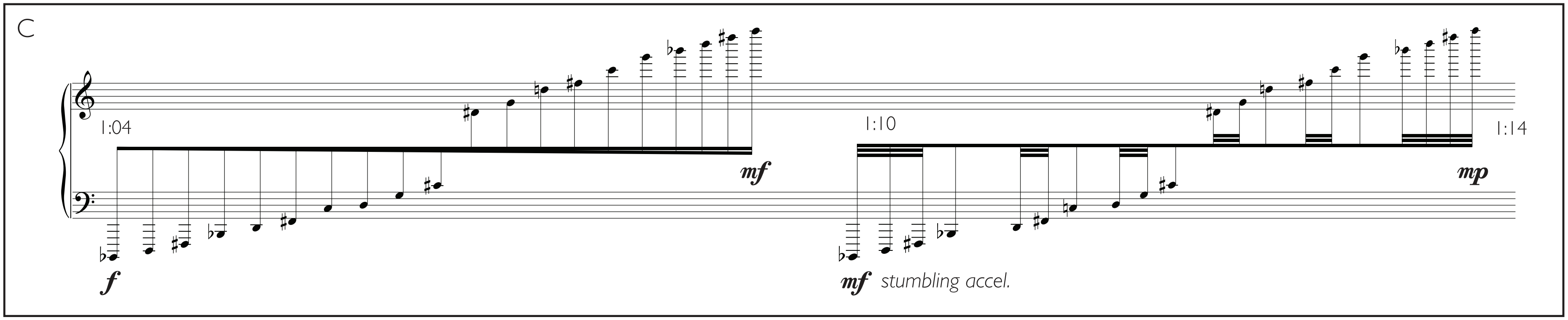
NIGHT TIME

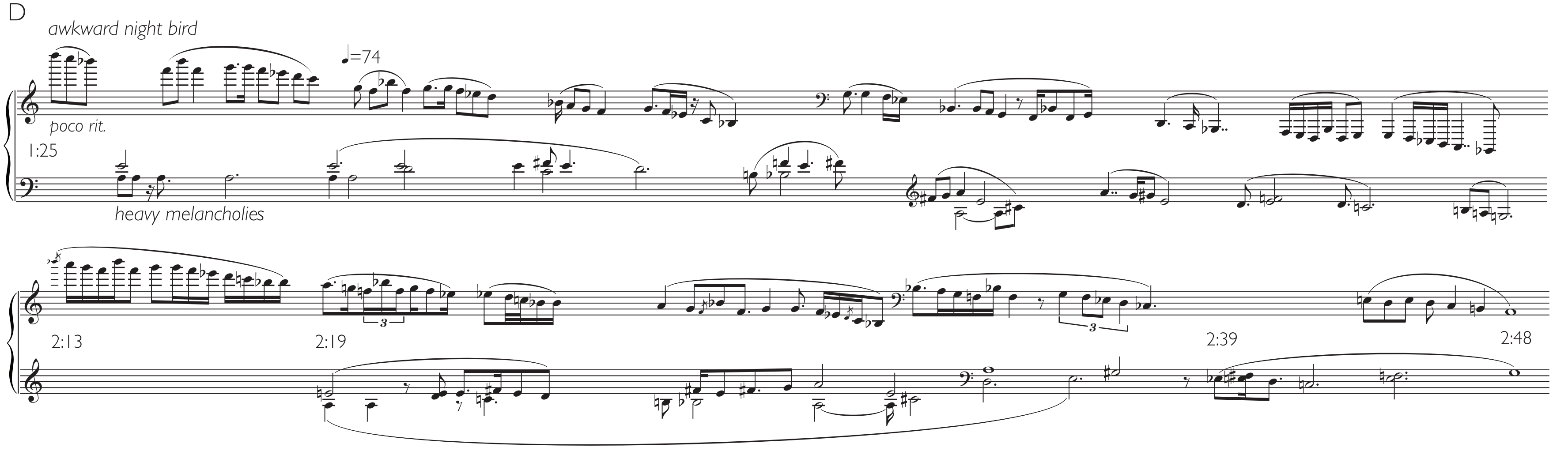
for Rosabel



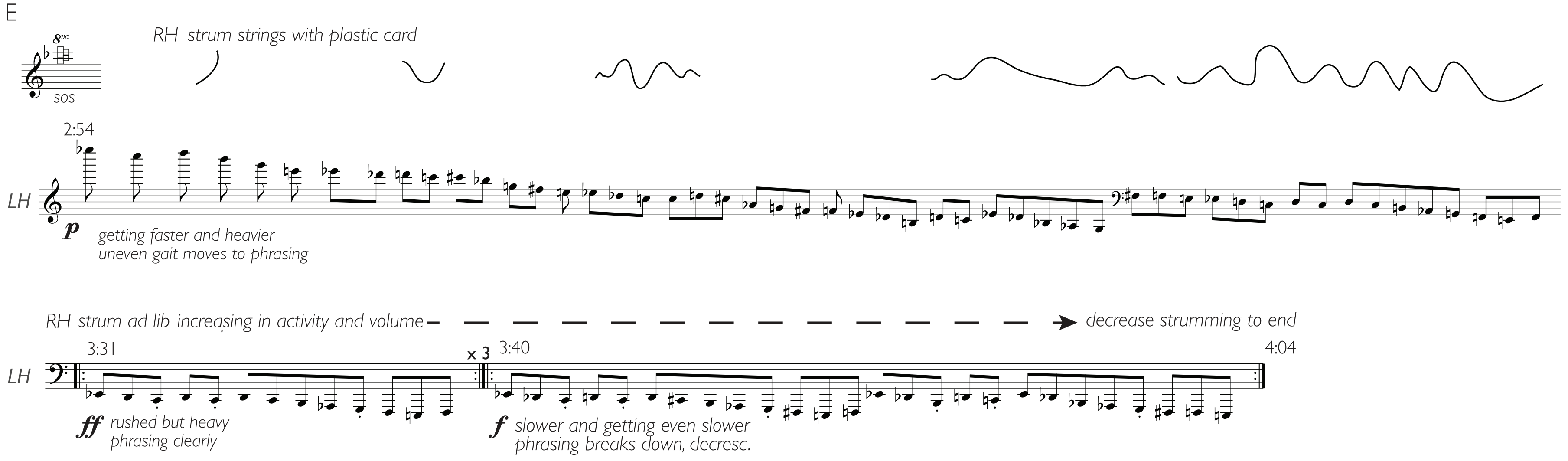
⁄ = scratch string with plastic card,
note length indicates relative length/speed of scratch,
ties indicate ring, use pedal to support articulation


B
loud and heavy
repeat with same finger unevenly but fastest
alternate faster RH
8va
0:32
0:38
0:45
repeat with same finger unevenly but fast
1:02

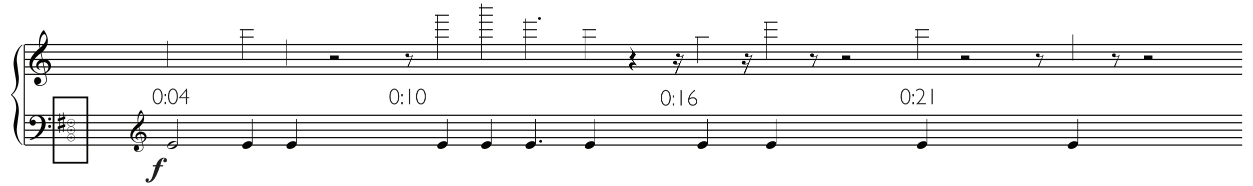

C
1:04
f
mf
1:10
mf
stumbling accel.
mp
1:14


D
awkward night bird
♩=74
poco rit.
1:25
heavy melancholies
3
2:13
2:19
3
2:39
2:48

Hands separate, searching to lock into the groove on the soundtrack,
each exploring their own melody and dynamic.
Pedal creatively.

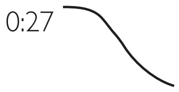

E
8va
sos
RH strum strings with plastic card
2:54
LH
p
getting faster and heavier
uneven gait moves to phrasing
RH strum ad lib increasing in activity and volume
decrease strumming to end
3:31
× 3
3:40
4:04
LH
ff
rushed but heavy
phrasing clearly
f
slower and getting even slower
phrasing breaks down, decresc.

A


0:04
0:10
0:16
0:21
f

◦ = place tuning mutes silently ca. 1.5in behind the damper, leave for the duration of the piece
RH: slide the fingerslide along the E4 string, always in motion, create rhythm by playing LH key.
Pedal creatively but sparingly - especially when certain pitches are depressed for resonance - throughout.

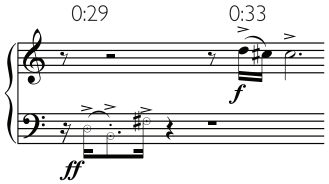
B



reach pegs behind
strings & drag slide
up between beams

NOURISH
for Katherine

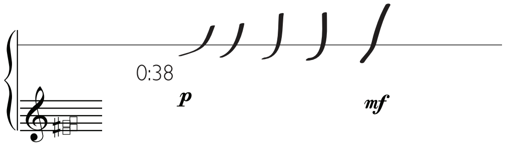
C



play heavily

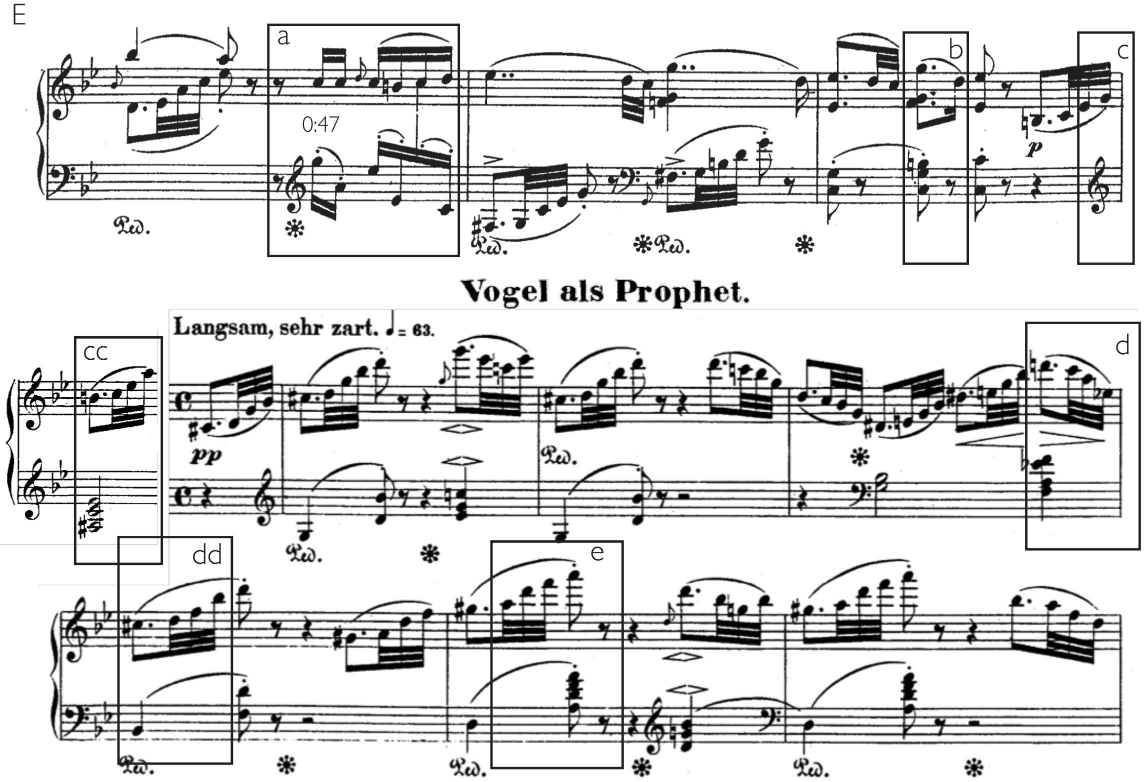
D

strum open strings with several nails

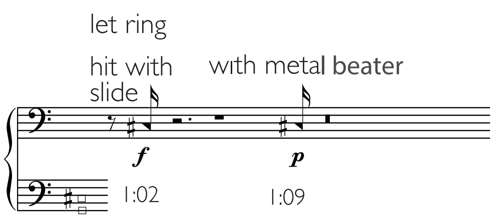


▫ = depress silently to keep dampers up

E


a
0:47
b
c
Vogel als Prophet.
Langsam, sehr zart. ♩= 63.
pp
cc
d
dd
e

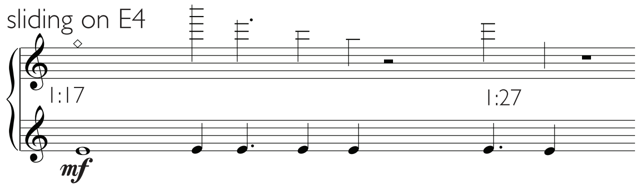
F


let ring

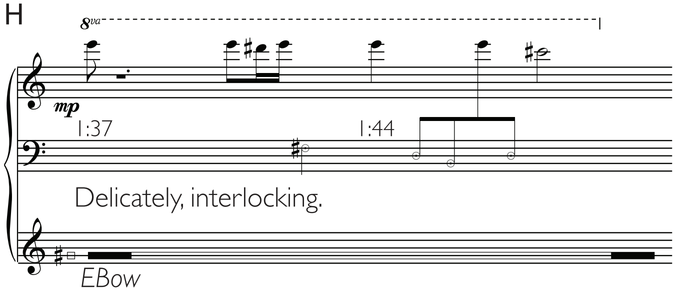
hit with slide

with metal beater

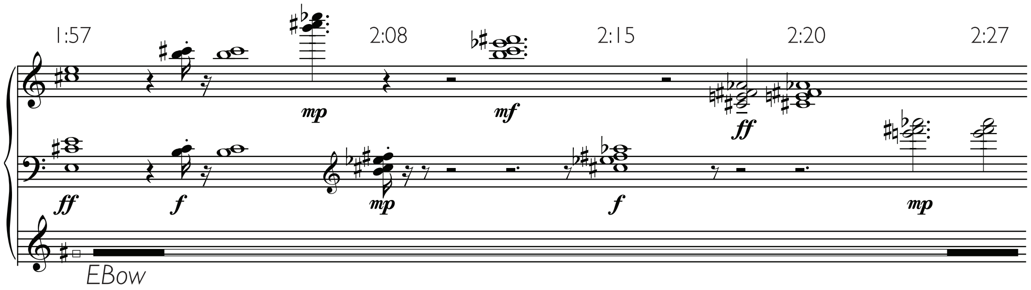
G


sliding on E4

H

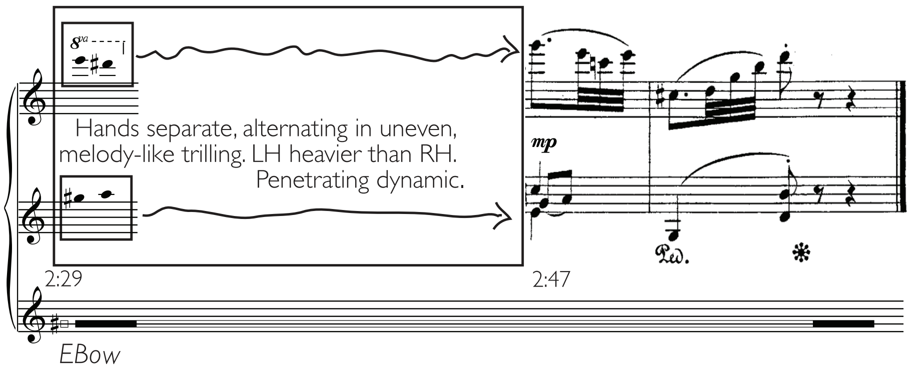

Delicately, interlocking.
8va
mp
1:37
1:44
EBow

I

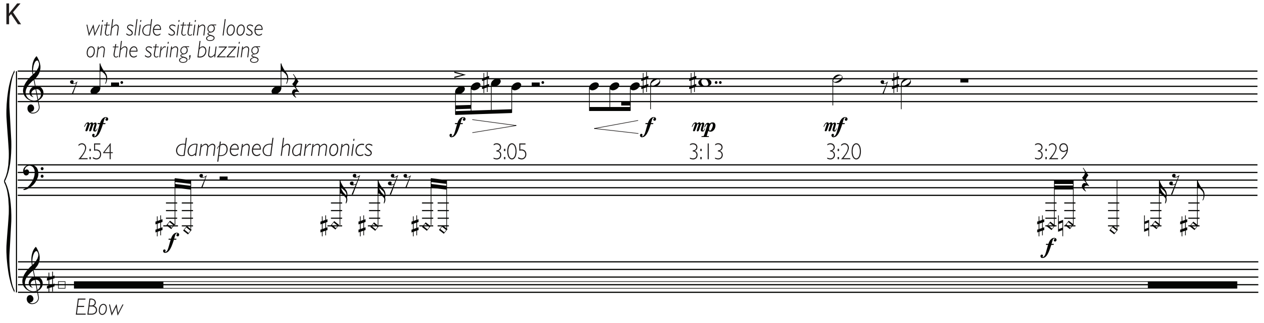

1:57
2:08
2:15
2:20
2:27
mp
mf
ff
ff
f
mp
f
mp
EBow

sharp, ringing tone, making big differences between sustained and staccato notes

J

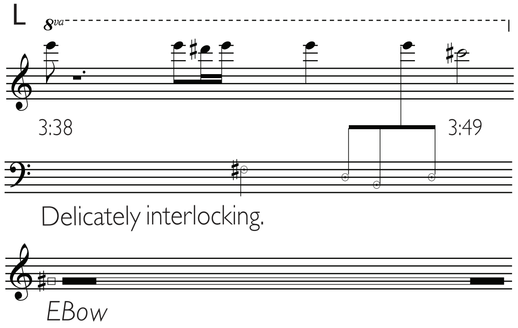

Hands separate, alternating in uneven, melody-like trilling. LH heavier than RH. Penetrating dynamic.
8va
mp
𝄑
2:29
2:47
EBow

K


with slide sitting loose on the string, buzzing

dampened harmonics
mf
f
f
mp
mf
2:54
3:05
3:13
3:20
3:29
f
f
EBow

L


Delicately interlocking.
8va
3:38
3:49
EBow