DOCTOR OF PHILOSOPHY

Nature and magic: rediscovering connections - a portfolio of compositions

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Yr wyf drwy hyn yn datgan mai canlyniad fy ymchwil fy hun yw'r thesis hwn, ac eithrio lle nodir yn wahanol. Caiff ffynonellau eraill eu cydnabod gan droednodiadau yn rhoi cyfeiriadau eglur. Nid yw sylwedd y gwaith hwn wedi cael ei dderbyn o'r blaen ar gyfer unrhyw radd, ac nid yw'n cael ei gyflwyno ar yr un pryd mewn ymgeisiaeth am unrhyw radd oni bai ei fod, fel y cytunwyd gan y Brifysgol, am gymwysterau deuol cymeradwy.

I hereby declare that this thesis is the results of my own investigations, except where otherwise stated. All other sources are acknowledged by bibliographic references. This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree unless, as agreed by the University, for approved dual awards.

NATURE AND MAGIC: REDISCOVERING CONNECTIONS
A PORTFOLIO OF COMPOSITIONS

By

Katherine Elizabeth Jennet Betteridge

Submitted in partial fulfillment of the requirements for the degree of
DOCTOR OF PHILOSOPHY

PRIFYSGOL
BANGOR
UNIVERSITY

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ABSTRACT

The compositions in this portfolio have been inspired by magic, nature, spirituality, boundaries, perception and the self. The themes are explored in two ways: either directly within the works, or through un-scored live performances and field recordings.

The idea of using composition as a way of identifying and understanding our deeply subjective experience of being human is developed within these pages. A suggestion is made that both composition and improvisation can be used as part of an overall holistic approach that helps bridge and integrate the physical material world of nature and everyday life with the non-physical world of dreams, alternative realities and magic. Many cultural theorists, philosophers and writers have noted that the modern age in which we live has resulted in a sense of existential dislocation and disconnection between people.[1] Within this portfolio an attempt is made to address this disconnect.

Within the works themselves are pieces inspired by specific locations or specific spiritual traditions from around the world. Many of the pieces are also directly inspired by my own explorations of nature and how this affects and relates to the inner self. The pieces are acoustic in the main, but some have electronic elements. Many of the pieces require unconventional concert hall layouts in an attempt to experiment with audience perception and boundaries and other pieces require the performances to take place in outdoor locations at specific times of the day or year.

[1] "As compared with man in those eras, man today has been uprooted, having become aware that he exists in what is but a historically determined and changing situation. It is as if the foundations of being had been shattered." Jaspers, K., 2014. *Man in the Modern Age (Routledge Revivals)*. Routledge. pp. 9-

For my parents, Alan and Mary,

and *The Marmaladies* – my hugely inspiring friends and sonic adventuring comrades

And for Eva, fellow intrepid explorer of the depths

And also for Meilyr

Due to confidentiality issues, the names of some individuals have been changed within this document.

ACKNOWLEDGEMENTS

This portfolio would not have been possible without the encouragement and support of many people. Thank you so much to Professor Andrew Lewis for all his encouragement, support and for helping me to develop my musical voice. He has an admirable ability to help tease one's natural compositional style out and onto the page and I also really enjoyed our philosophical supervision sessions. Thank you so much to Professor Chris Collins, head of music, and also to Bangor University for providing financial support (thus enabling me to be able to do the PhD). Thank you to Professor Pwyll ap Sion and Professor Andrew Lewis for suggesting I embarked on the PhD in the first place back in 2012; it has been a long and fruitful journey, both of self-discovery through music and personal musical evolution. Thank you to Dr Guto Puw for a number of musical opportunities that have really helped shape my musical style. A great thank you to Bangor School of Music for all the support, opportunities and encouragement I have received since embarking on the first leg of my musical journey back 2002 when I came to Bangor. Thank you to Sioned Eleri Roberts and Dr Sarah Brook for helping stimulate and inspire my musical ideas. We three (The Marmaladies) have been on many exciting and unusual musical and creative adventures together which have greatly affected my views about performance, also Sioned and Sarah are both very inspiring people. Thank you to Chiron Farrimond for creating the Max Patch for *Marie Laveau* and also to Alex Bailey and Samuel Davies for electronic support, either at performances of my pieces or in the studio. Thank you to Aled Meredith for filming and editing the mine video (*Voices from the Deep*) and for helping with the hydrophone recordings. Thank you also to Aled and Subash Arumugam for some of the video footage shot at Baron Hill. Thank you to Christian Plamenov and Subash Arumugam for filming *Lie Still Sleep Becalmed* and to Christian for editing it brilliantly. Thank you to Gemma Veneruso and the Marine Sciences department at Bangor University for the loan of the hydrophone in May 2017, which enabled me to explore sound in a completely different way. Thank you to Professor Robert McCauley at the Centre of Marine Science and Technology, Curtin University, Western Australia for sending me a variety of recordings of singing fish, including a fish dawn chorus! Thank you Professor Paul Downing and Dr Rebekah Kaunhoven from the Neuroscience department for their help and suggestions. Thank you to Alan Crawshaw, Aled Meredith and Meryl Heath for photographs used

throughout *A Day Back When Suite* and in other places in my PhD. Thank you to Rachel Rosen, the metalwork scrapyard queen artist for lending me a variety of interesting-sounding metal objects to play with underwater when doing the hydrophone recordings. Thank you to the Scottish Gaelic actress Mairi Milne, for giving me translation help with the title of my final orchestral piece – *Turas*, and for helping with pronunciation (*Turas* is an abbreviation of *Turas a-steach don Dhoimhneachd*). Thank you to Lindsey Colborne for photographing my *Suite for the Seasons* scores. Thank you Luke Moore for his script which I set to music for the aria from *Lost on Mars*. Thank you to friends and family who helped with proof-reading or for providing advice on instruments I do not play – I will list them: My parents Mary and Alan Betteridge, Ninos Grigoriadis, Sioned Eleri Roberts, Dr Sarah Brook, Richard Craig, Hayley, Ellie Brooke, Frankie Clare, Dewi Ellis Jones, Chris Williams, Mared Emlyn and Christina Homer, thank you also to Dr Guto Puw for proof reading all my scores. Also thank you to Duncan Chapman – fellow composer – for helping answer many questions! Thank you to my good friend Eva Požar for all her emotional support and willingness to talk about anything and everything! Thank you again to my parents Alan and Mary for their all round support throughout my musical education. I could not have done any of it without them.

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APPENDIX

The appendix comprises two folders:

Folder 1: Essential Materials for Performances of Scores

This contains electronic materials (such as max patches, click tracks etc) that are required in order to perform the compositions within the portfolio. These are an essential part of the PhD.

Folder 2: Helpful but Non-Essential Materials

This contains videos, recordings and photographs of past performances. This folder is not essential, but may be helpful.

SECTION 1: INFLUENCES

This portfolio embodies my thoughts and reflections over the course of my research on the subjects of nature and magic, outlining how I chose to express them musically.

Throughout my life the music of many composers and musicians has entered my subconscious mind and been assimilated organically, as if by some form of osmosis. Rather than studying the music of other composers as theoretical or technical models, I absorb ideas and techniques that make an impression on me, without regard to their immediate theoretical context. If I respond emotionally to something by another composer when I first hear it, it enters in. It is this immediate sense that I absorb and then store in my subconscious for later use within my own work. When writing music I follow where intuition takes me and draw on this internalized library to help express an idea when it feels right. My own music and creations make the best sense in the moment, out of the context of everything else as my methodology is intuitive and my imagination guides the way. I hope that this approach allows my music to remain personal, unique and truly authentic.

Many of the ideas of these composers I have absorbed without fully understanding how they took root, and became part of my approach to writing music. Some musical ideas can be clearly identified, however, and will be discussed in the following section. These influences will be explored thematically, with a focus on different composers within each theme, some of whom will appear within more than one theme.

Extended Techniques

Upon discovering the music of the German composer Helmut Lachenmann (born 1935), I felt inspired by his use of extended techniques, and also by his ideas regarding the literal re-creation of acoustic sounds and events, for example notes played on a cello that directly imitate his mother opening a can of coke with her long fingernails. This occurs in his *TemA* (1968) for flute, voice and cello. This literal-sound-creation made an impression on me as I had thought until that point, presumably at an unconscious level, that making sound in such a literal way was prohibited in classical art-music. I like this idea because of its simplicity and directness. An example of my own literal sound-creation can be found in movement 1

of *Elementa* mm. 19 – 26 (‘Aqua’) where a spoon taps a wine glass in the first violin part. This is intended to represent a boat sail tapping against a mast.

Additionally, I have directly employed some of Lachenmann’s extended techniques in the third movement of *Elementa*: “L1” and “L2” are named after techniques used in the piece *Toccatina per Violino Solo* by Lachenmann. These appear in my piece between mm. 185 – 207.

Another composer whose influence I can directly trace in my work is George Crumb (born 1929). For example, I have used the word ‘Gossamer’ as a performance direction in *Elementa* (mm. 150 – 154) as a result of my appreciation of the delicate imagery it evokes after seeing it in the score of *Black Angels*.

In *Elementa* I have chosen to use it to convey fine embers floating in the air after a volcanic eruption, as opposed to Crumb’s use of the word intending to create something slightly unearthly. Crumb also uses several percussion instruments and wine glasses in this composition, and the piece is additionally scored for electric string quartet. These features were also influences in *Elementa*.

I love the darkness, drama and feeling of ritual in *Black Angels* with its chanting, whispering and use of percussion. I feel this dramatic approach to music-making has permeated my live music-making when improvising with friends and colleagues in theatrical settings, and also in some compositions within this portfolio. *Marie Laveau* is an example, in particular the movement entitled “Ritual”.

Nature

Ralph Vaughan Williams (1872 – 1958) and Björk (born 1965) have been particularly influential in the area of nature. I was raised listening to Vaughan Williams as my father played the symphonies on a regular basis whilst I was growing up, and I have been a staunch Björk fan since my early teenage years. I have always loved being outdoors, so finding composers who wove the landscape into their music opened up a world of possibilities for me. Vaughan Williams’ music evokes a multitude of different landscapes and seascapes, often using geography and topography as building

blocks for the musical structure. Björk's music inevitably grew from her raw, volcanic Icelandic homeland. She expresses how her music organically evolved from nature:

> Iceland probably affected a lot how I sing because I did spend a lot of time as a kid in nature. The way I sang would just form itself. It was definitely not influenced by other singers. Just walking outside to school, or maybe in blizzards, it just kind of like happened, and you would walk and there'd be no wind and you could be all quiet and whispery and you could sneak down next to the moss and maybe sing a verse, and then you would stand up and run to a hill and sing a chorus. You'd have to do that quite loudly because the weather was strong.[2]

It is interesting to note that both composers made it into the mainstream (be it very different mainstreams) – many of their compositions are well-known and much of their music is seen as 'accessible' to audiences. I am aware that my music is not as accessible or memorable as that of Vaughan Williams or Björk. I do however have a strong desire, particularly within the live events I create, to attract people from all walks of life and to bring them together. I have no desire to create elitist music or an environment where some people feel alienated or marginalized. I want my creations to be accessible to everyone.

Björk's refusal to fully adhere to the norms within the dance and pop movements has influenced my own general approach and attitude to music-making. She has always vehemently stood her ground and expressed music in her own unique way, despite extreme criticism and pressure to conform. Her willingness to make things intensely raw and personal, bringing her own life experiences directly into her music, influenced my attitude to my own music. Her album *Vulnicura*, which translates from the Latin "Cure for Wounds" (Vulnus + Cura) is a direct expression of the breakdown of her 13 year relationship with Matthew Barney. Several of my compositions come directly from my personal experiences and suffering, *Turas* in particular. This piece was born of the healing journey that took place following a mental breakdown in 2018.

[2] Dibben, N., 2009. *Björk.* Sheffield, UK: Equinox Publisher. p. 54

Development of Musical Ideas and Texture

I feel that Arvo Pärt (born 1935) and Henryk Górecki (1933 – 2010) are probably the main composers to have influenced the approach to and the development of my musical ideas. One example of something that remained with me is the first movement of Górecki's *3rd Symphony* – the entrance of the double basses followed by the canonic entries of the other strings as the melody moves across the entire string section, speeding up during its ascent. I loved the simplicity of the structure – the piece develops itself without complexities and manipulations. I used a similar structure in *Turas*, but starting from the opposite end of the spectrum to Górecki by starting with the highest instruments first. *Cantus in Memorium Benjamin Britten* and *Spiegel im Spiegel* by Arvo Pärt are pieces which surprised me in their simplicity. *Cantus* is simply a falling repeated A minor scale played canonically across the string section and *Spiegel im Spiegel* a rising and descending F major scale played on violin. I use ascending and descending scales in my own work but often each note of the scale is played by a separate player. This can be seen in *Turas* in the string passage starting at m.48 and recurs within different sections of the orchestra throughout the piece.

Björk, Vaughan Williams and Arvo Pärt all employ rich textural harmonies, particularly with their use of strings, splitting and sub-dividing sections (see for example *Fantasia on a Theme by Thomas Tallis* by Vaughan Williams, *Cantus in Memorium Benjamin Britten* by Arvo Pärt or the song *Isobel* on the album 'Post' by Björk). I also use a lot of rich string textures and multiple subdivisions within sections (see for example *Turas* or *Demstek*), and I suspect that this aspect of my music has been influenced by these composers.

Spirituality and Meditation

I feel that my personal spiritual connection has lured me in the direction of composers who have a very spiritual approach to life themselves, and a spirituality which has become innately interwoven with their music. Arvo Pärt in particular was a big part of my life throughout my undergraduate and postgraduate period, and even before I came to university. By studying Pärt's compositional approach, his need for silence

and withdrawal for several years from society and from writing music, and the subsequent creation of his tintinnabuli style, I identified even more strongly to his world outlook and his music. I cannot pinpoint exactly where his sense of spirituality took root in my own music, but I know that I have always felt a strong connection to the spiritual and meditative nature of his music. For more information on Pärt's tintinnabuli style, see Paul Hillier, Arvo Pärt, Oxford Studies p. 90.[3]

In addition, John Cage's (1912 – 1992) philosophy of releasing the need to control all elements of sound was also of great interest to me, particularly once I began to explore mindfulness meditation.

> But this fearlessness only follows if, at the parting of ways, where it is realised that sounds occur whether intended or not, one turns in the direction of those he does not intend. This turning is psychological and seems at first to be a giving up of everything that belongs to humanity – for a musician, the giving up of music. This psychological turning leads to the world of nature, where, gradually or suddenly, one sees that humanity and nature, not separate, are in this world together; that nothing was lost when everything was given away. In fact, everything is gained. In musical terms, any sounds may occur in any combination and in any continuity.[4]

Mindfulness and meditation have played a large part in my life over the past 10 years and have affected my music and ideas in many ways. Mindfulness involves relinquishing the need to control things, turning instead towards the uncontrollable with an open sense of interest and an absence of judgment. This can include turning towards sounds, feelings, sensations, thoughts or any number of things and becoming a witness to the experience.

Influenced by these ideas, I often compose by adding to a composition 'accidental' noises I hear in the environment. I know that my final piece *Turas*, incudes many accidental sounds that occurred as I was composing it. By accidental noises, I mean either sounds from the outside (a bird singing, a lawnmower, a car etc.) or sounds that I *think* I have heard in the music when listening back. My compositional method

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[3] Hillier, P., 1997. *Arvo Pärt*. Clarendon Press. p.90

[4] The above statement was given as an address to the convention of the Music Teachers National Association in Chicago in the winter of 1957. It was printed in the brochure accompanying George Avakian's recording of Cage's twenty-five-year retrospective concert at Town Hall, New York, in 1958. Online at: http://ada.evergreen.edu/~arunc/texts/music/cage1/cage1.pdf

involves improvising and recording the improvisations, then transcribing the music into Sibelius notation software from the recording. However, when I listen to the recording I often hear a lot of extra music beyond what is actually there. This occurs in concerts too. This may be overtones, or very quiet sounds that an instrument has accidentally made, or sounds created by feedback, or sounds that aren't actually there at all, that I imagine I have heard. Although these are 'accidental' noises, they often seem to fit quite naturally into a piece and I find a way to include them.

SECTION 2: COMMENTARIES AND SCORES

1. *Demstek* (2012)

4 minutes long

One of the main aims of *Demstek* was to explore the possibility of integrating an audience into a performance. I wanted the boundary between musicians and audience to be reduced, and even the boundary between musicians and non-musicians, as some of the wine glass parts can be performed by non-musicians (with minimal direction from a conductor). The wine glass players are positioned at the back and on either side of the audience in an attempt to create a feeling of immersion within the piece. Although this is a short piece, it was thought that the unusual location of the performers would still create less of a division. This work has not yet been performed live so I cannot confirm that my initial intention of reducing the boundaries would work in this short piece. From the experience of a live performance of *Forest of Non-Ordinary Reality*, however, I can confirm that short pieces can have the desired effect of allowing an audience to feel more integrated within the performance. The technique used for including the audience in *Forest of Non-Ordinary Reality* is a different one to the one used in *Demstek*. Following the performance of *Forest*, however, there was significant positive feedback from audience members regarding their sense of being part of the performance and the positive effect this had on them.

I tried to decide on a language in which to write the words, but realised that the specific meaning given to words is not always necessary, as language can sometimes become a barrier to emotion, so I instead created a language.

There is a hum throughout the piece, played on the glasses or in some sections by the strings, so that the notes sung by the singers can rest upon this humming sea of sound. Ideally, the piece should be performed in a dimly lit hall to further add to the atmosphere created by the positioning of the musicians.

The recording of the piece (held in Folder 2 in the appendices) was recorded in a studio. The performers were:
Vocals: Jamie Stroud, Ellen Mason, Katherine Betteridge
Strings: Katherine Betteridge

Katherine Betteridge

Demstek

For

Voices
Strings
Wine Glasses

Duration: ca.4 minutes

All instruments are notated at sounding pitch

Programme Note

For wine glasses, small choir and strings

The sound of wine glasses has fascinated me for years, particularly when many are played together. This was my first exploration into incorporating many wine glasses into a composition.

The language of Demstek was invented by myself.

Performance Directions

The wine glasses are to be played by two separate groups of people.

Wine glasses 1 = first group
Wine glasses 2 – 5 = second group

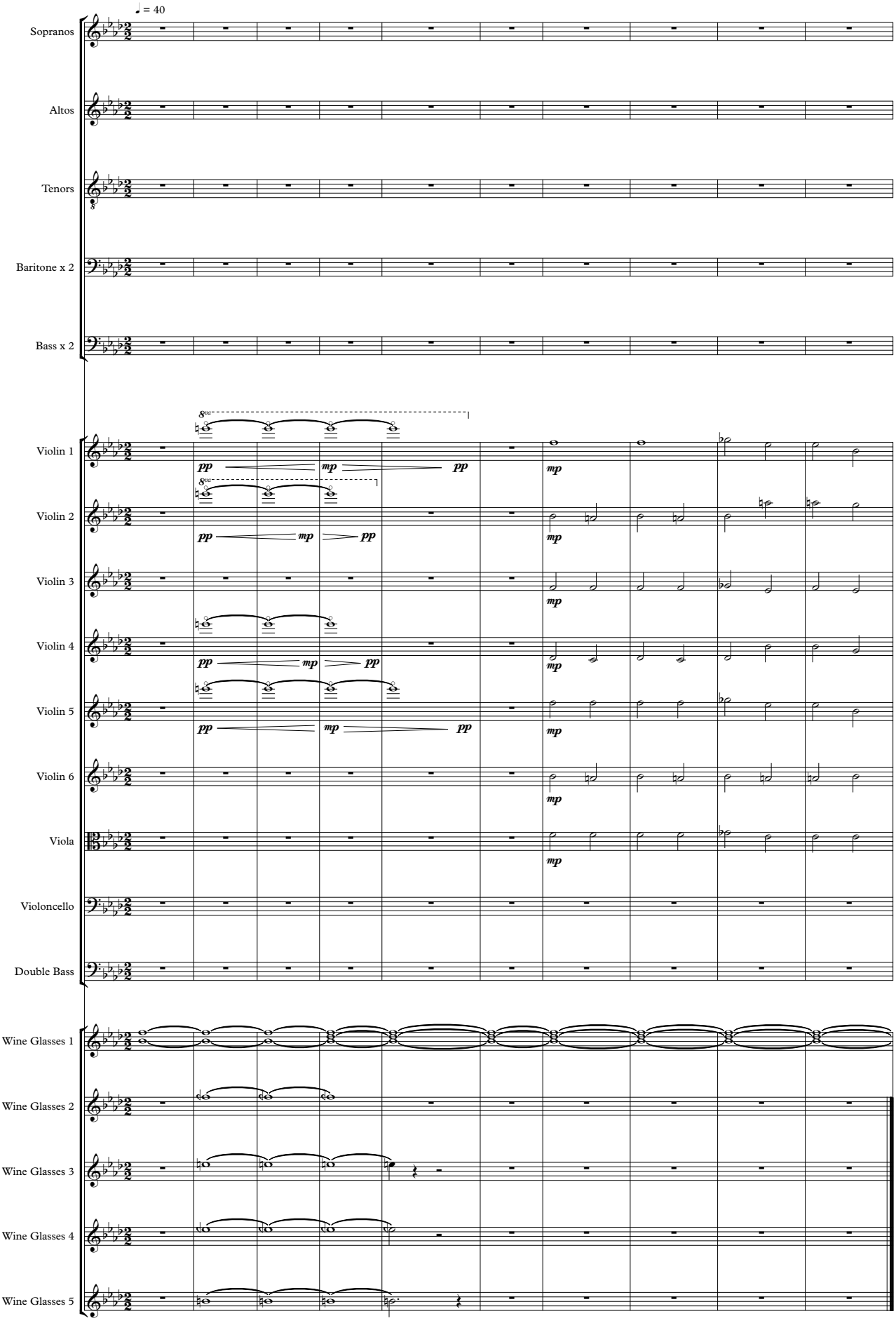
The first group play continuously throughout the entire piece. Try to have as many players as possible playing each note, ensuring a really rich, even and continuous spread of the chord. These performers stand around the back of the audience so the audience feel that they are inside the music. The people in this group playing the D flats do not play for the first 3 bars and should gradually enter one at a time after three bars have passed (maybe go around the room one by one). Work out during rehearsals how to ensure that people get a rest from playing during the piece (if necessary), but ensure that people playing the same note don't all take a rest at the same time (again, maybe going around the room, one by one). These performers will need to memorise where to stop during the piece (the end of the choir's first verse) and which people playing the D flats then start the next section and when.

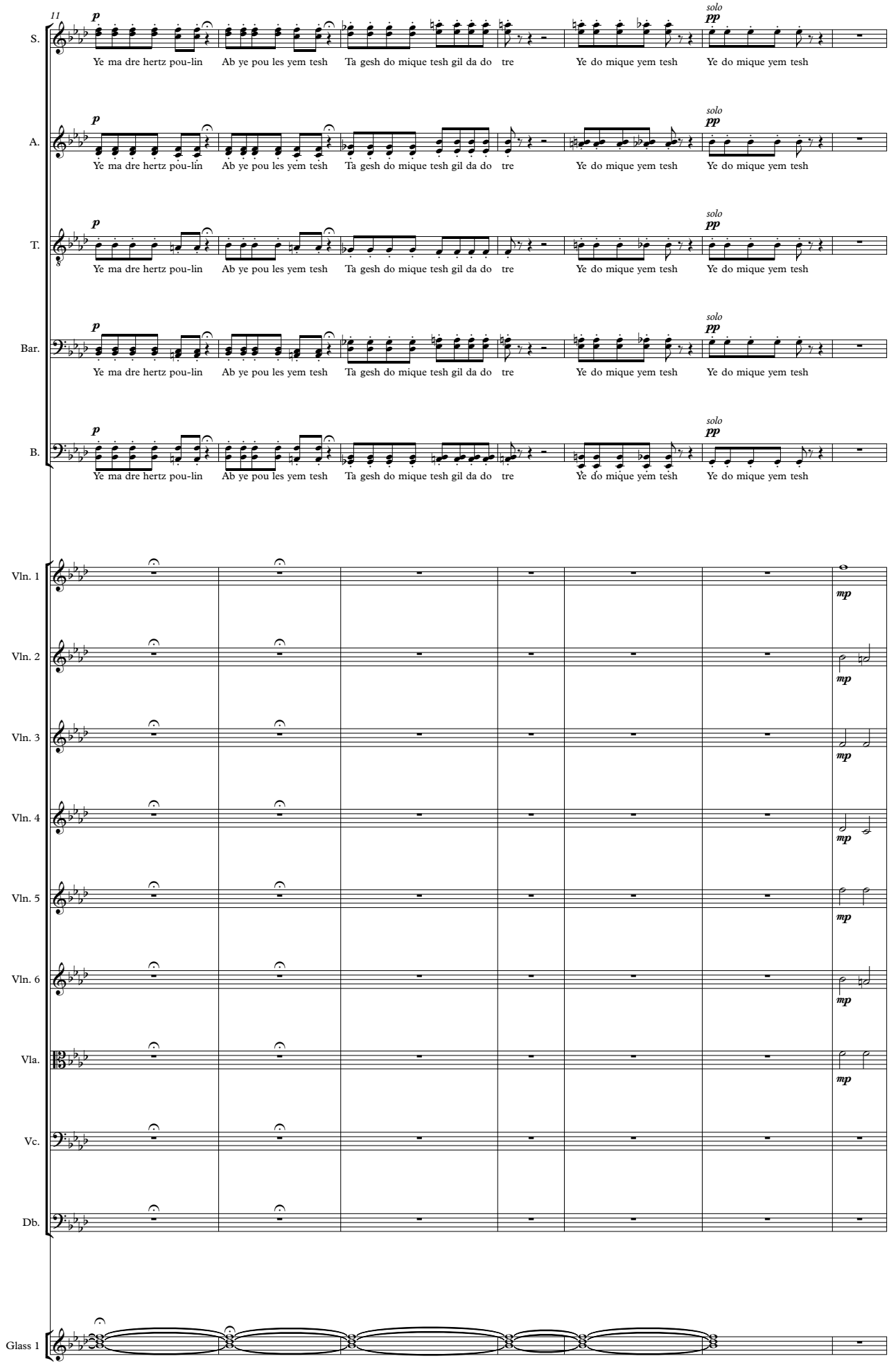
The singers (do not need to move from their choir positions) play the notes in Wine glass groups 2-5. Two singers (and thus 2 wine glasses) per note. These notes are only played until bar 5 (whilst the singers have rests).

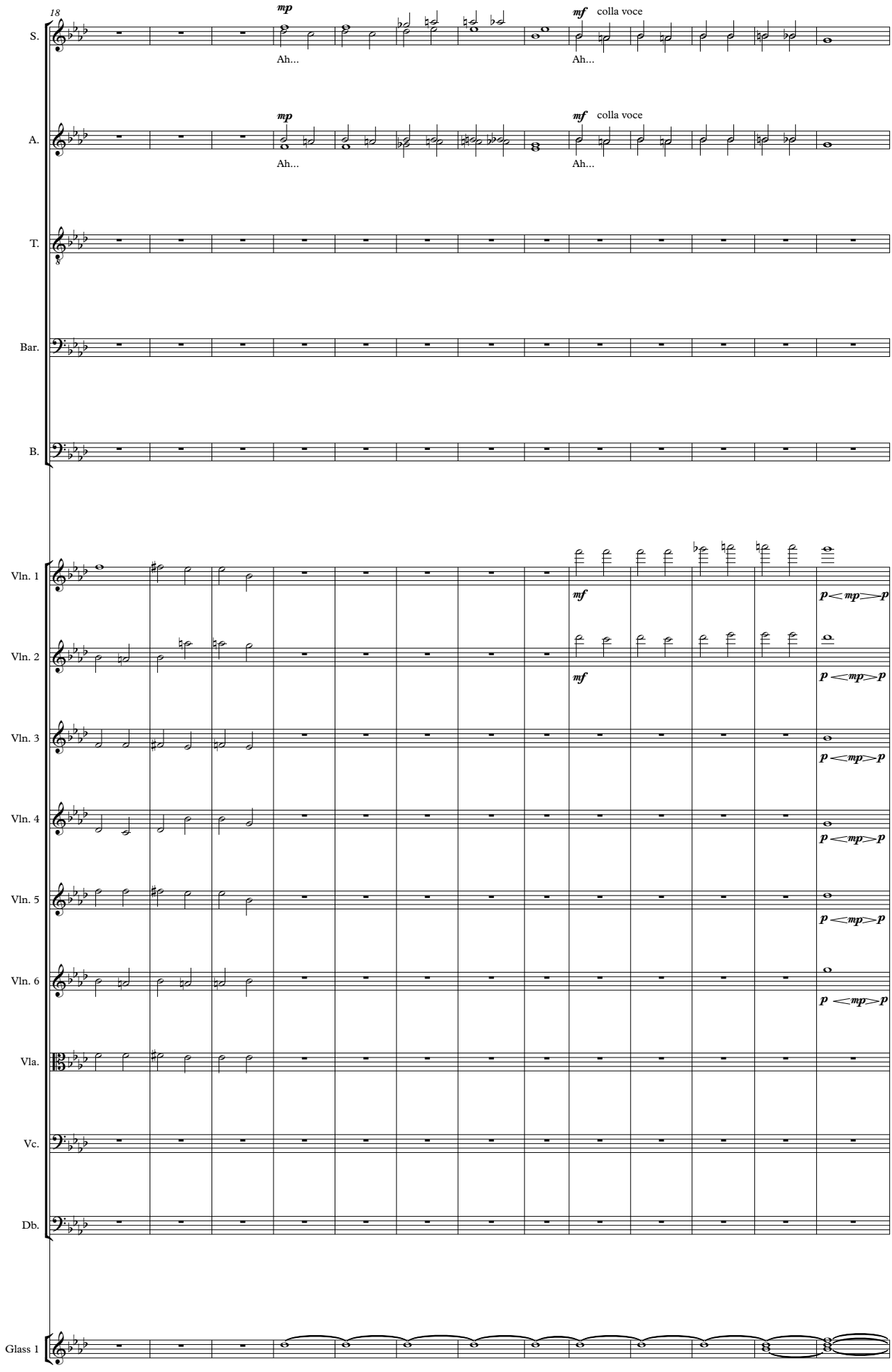
Please listen to audio track for pronunciation guidance.

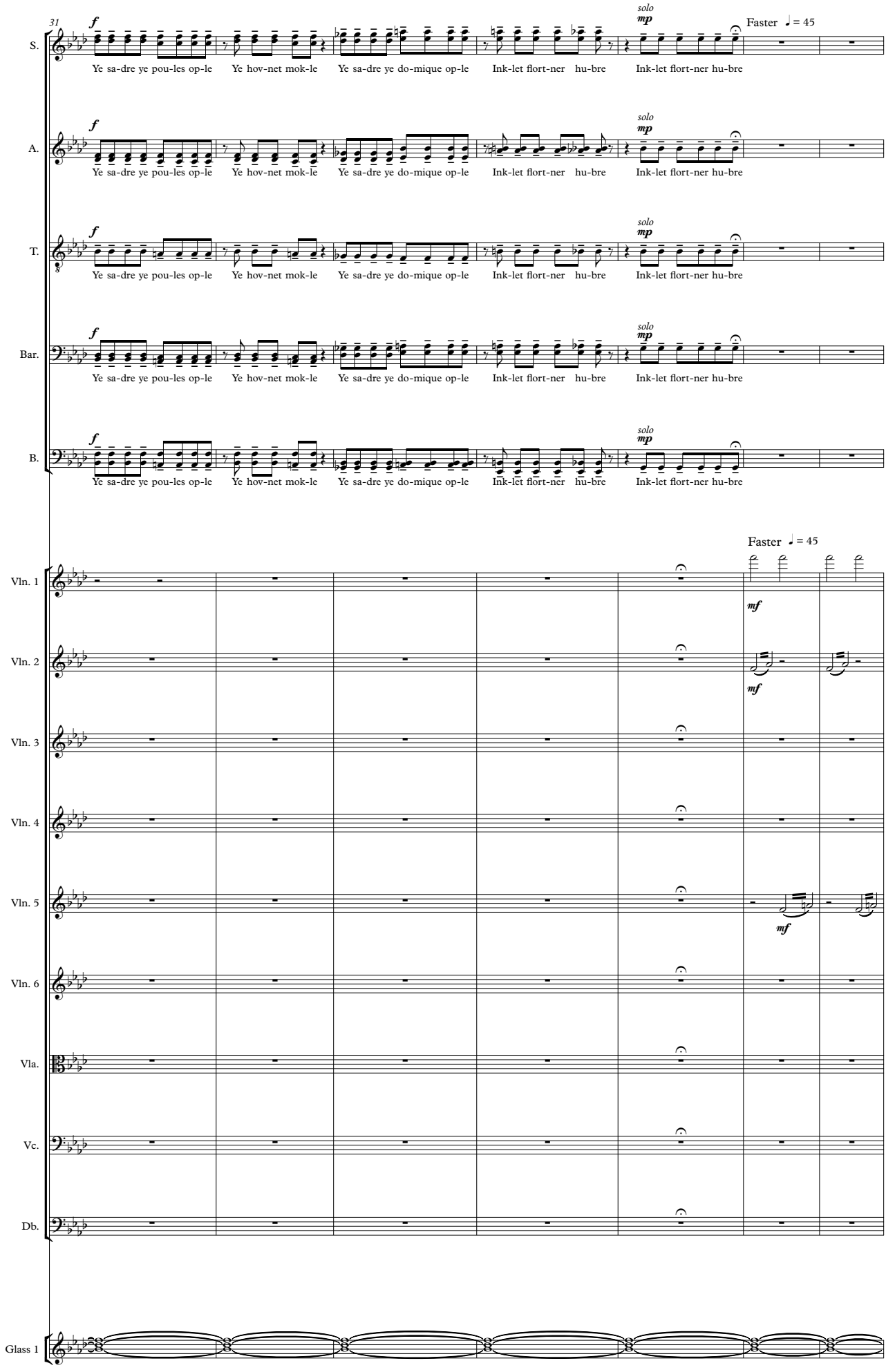
Demstek

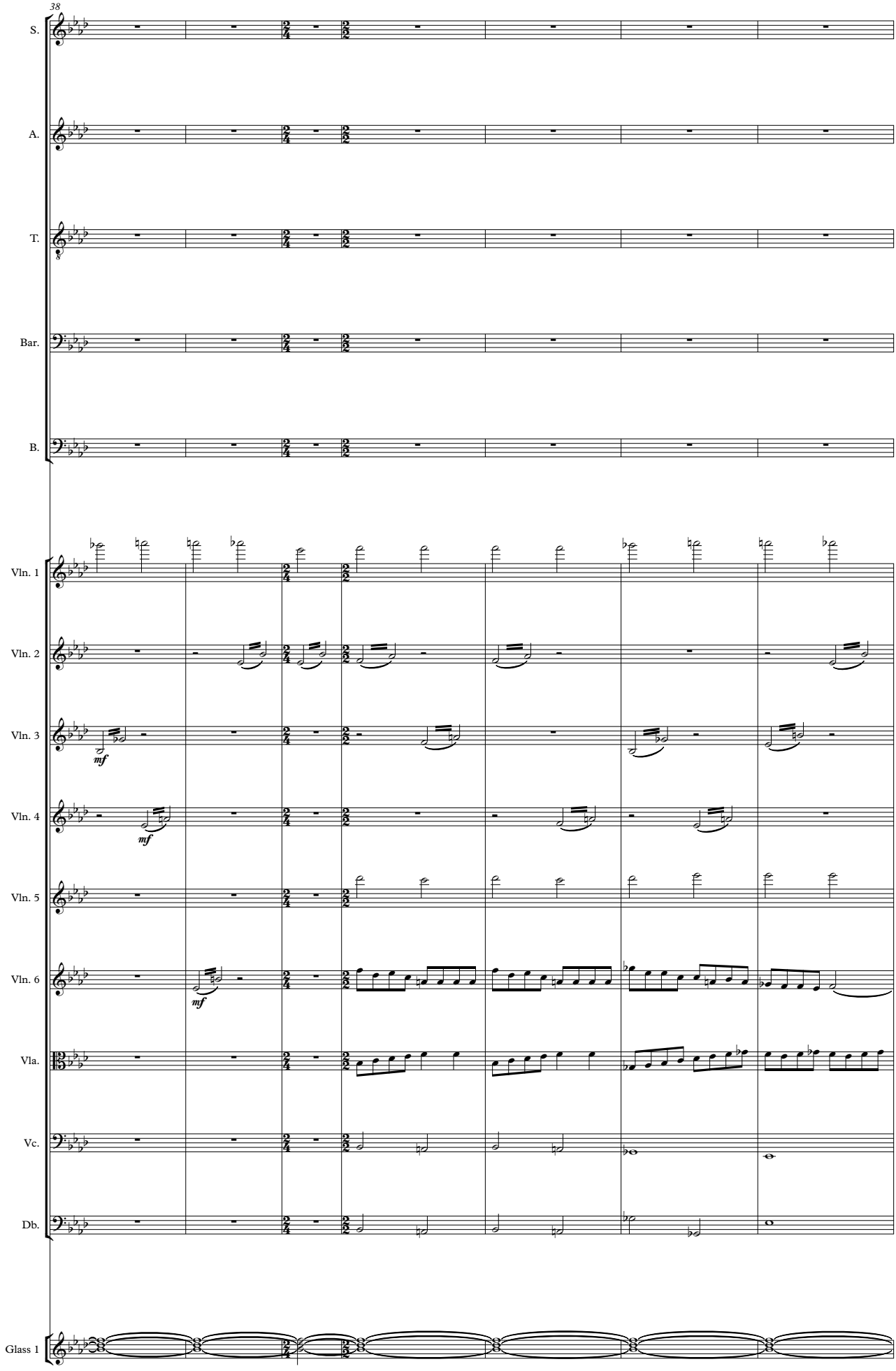
Katherine Betteridge

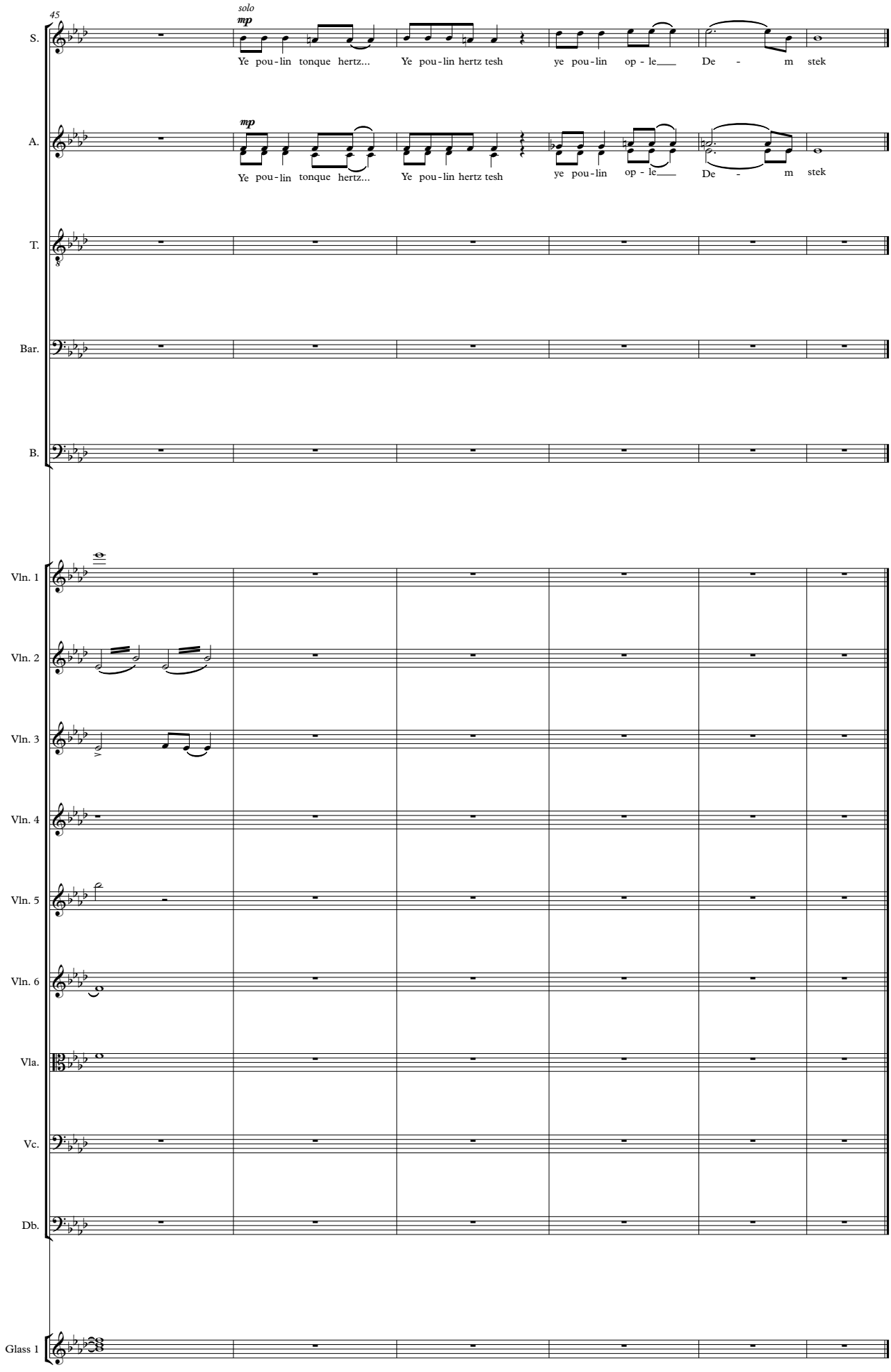



11
S.
A.
T.
Bar.
B.
p
pp
solo
Ye ma dre hertz pou-lin
Ab ye pou les yem tesh
Ta gesh do mique tesh gil da do
tre
Ye do mique yem tesh
Ye do mique yem tesh
Vln. 1
Vln. 2
Vln. 3
Vln. 4
Vln. 5
Vln. 6
Vla.
Vc.
Db.
mp
Glass 1


18
S.
mp
Ah...
mf
colla voce
Ah...
A.
mp
Ah...
mf
colla voce
Ah...
T.
Bar.
B.
Vln. 1
mf
p < mp > p
Vln. 2
mf
p < mp > p
Vln. 3
p < mp > p
Vln. 4
p < mp > p
Vln. 5
p < mp > p
Vln. 6
p < mp > p
Vla.
Vc.
Db.
Glass 1


31
S.
A.
T.
Bar.
B.
f
solo
mp
Faster ♩ = 45
Ye sa-dre ye pou-les op-le
Ye hov-net mok-le
Ye sa-dre ye do-mique op-le
Ink-let flort-ner hu-bre
Ink-let flort-ner hu-bre
Vln. 1
Vln. 2
Vln. 3
Vln. 4
Vln. 5
Vln. 6
Vla.
Vc.
Db.
mf
Glass 1


38
S.
A.
T.
Bar.
B.
Vln. 1
Vln. 2
Vln. 3
Vln. 4
Vln. 5
Vln. 6
Vla.
Vc.
Db.
Glass 1
mf
mf
mf


45
solo
mp
S.
Ye pou-lin tonque hertz...
Ye pou-lin hertz tesh
ye pou-lin op-le
De - m stek
mp
A.
Ye pou-lin tonque hertz...
Ye pou-lin hertz tesh
ye pou-lin op-le
De - m stek
T.
Bar.
B.
Vln. 1
Vln. 2
Vln. 3
Vln. 4
Vln. 5
Vln. 6
Vla.
Vc.
Db.
Glass 1

2. *Belovodia* (2013)

12 minutes long

Movements: Yohor (Circle Dance)
Gazar Eej Etugan (Mother Earth)
Golompto (Daughter of Fire)
Köke Möngke (Father Heaven)
Hiimori (Wind Horse)
Yohor (Circle Dance)

The book *Entering the Circle* by Olga Kharitidi was the main inspiration for this composition. The name Belovodia comes up early on in the book when two explorers talk to Olga about their quest to find the possible location of "Belovodia", the Russian Shamballa. They explain that Belovodia is a place in the mountains where there may have lived a race of highly evolved humans, possibly as long as 300,000 years ago. These people were said to have been in total spiritual harmony with their environment and with one another. Kharitidi states that Mongolian Shamanism is believed to have originated from the wisdom of the ancient Belovodians.

The landscape, the weather and the natural environment of the plains of Mongolia were the main inspirations for the compositional material in this piece. Additionally, the importance of circles and cycles in Shamanic traditions, with things returning again and again, year after year, lifetime after lifetime was another theme from which the structure of *Belovodia* grew. In the first movement of *Belovodia* – Yohor, which is Mongolian for Circle Dance (all the movement names are Mongolian words for elements of Shamanic belief) there is a short repeated passage of notes initially played on the prepared notes of the piano. This passage reappears in movement 3 (mm. 108 & mm. 111) and again in the final movement of the piece, (also called Yohor) where the same passage is played on the vibraphone. It was my wish to generate a sense of circular continuity with the theme. The prepared piano creates a bell-like quality, and bells are often used in Shamanic traditions. I was inspired to experiment with preparing the piano in this way after hearing Arvo Pärt's *Tabula Rasa* (Pärt, Tabula Rasa: 1, Ludus, mm. 9.). The prepared notes have a bell-like quality in *Tabula Rasa* in keeping with Pärt's Tintinnabulation techniques. This bell-like quality seemed fitting for *Belovodia* due to the importance of bells in many Shamanic practices.

Another theme that keeps reappearing is the mother earth theme which is first introduced in an *earthy* register of the viola (starting mm. 46) and recurring between mm. 94 – 102 in a mutated form played by bowed vibraphone. The strings' col legno passage in this same section between mm. 94 and 102 also comprises notes taken from the mother earth theme. Ceremony and ritual are present in *Belovodia*, where chanting is imitated by the instruments playing in unison between mm. 68 and 73.

The third movement is called "Golomto", which means "daughter of fire". The movement starts with mobiles, which are used here to express mischievous fire spirits playing and setting things alight. They are abruptly interrupted by a clap of thunder from the heavens (imitated by the piano cluster chord at the end of mm. 80), then, from mm. 81 to 104 I attempt to evoke the landscape of bleak Mongolian plains. I have done this suggestively, with the instruments playing a variety of extended techniques, such as the rumbling sounds created by the pianist tapping the low strings inside the piano (intended to sound like thunder rumbling in the distance) or the col legno upper strings (which represent droplets of rain), whilst the vibraphone slowly bows the notes of the mother earth theme. In this passage I have included a technique for the cello which I have called "technique A". This cello effect is intended to convey the atmosphere of a vast, open, empty Mongolian plain. It does, coincidentally, also sound a little like Mongolian throat singing, although this was not intentional. I heard this technique in a workshop on youtube run by Anussi Karttunen and Kaija Saariaho[5] and have used it in several compositions since as I feel it has a beautiful, raw, ethereal quality. It was this aforementioned passage of music in *Belovodia* (mm. 81 to 104), the second piece I wrote in my research, which gave me a clear picture about the direction in which I wanted my compositional style to go.

[5] *Youtube*. 2019. [Online]. Available at https://www.youtube.com/watch?v=T32QIOAxrlo Accessed 2012

Belovodia was commissioned and first performed by Psappha Ensemble in March 2013 at the Bangor New Music Festival. A recording contract was not agreed, however, so the recording located within folder 2 is a studio recording. The performers were:

Clarinet: Sioned Eleri Roberts

Flute: Eleanor Lighton

Strings, Vibraphone and Piano: Katherine Betteridge

Katherine Betteridge

Belovodia

For

Flute
Clarinet in Bb and (optional) Bass Clarinet
Violin
Viola
Cello
Vibraphone
Prepared Piano

Duration: ca. 12 Minutes

All instruments are notated at sounding pitch

Programme note

For violin, viola, cello, flute, clarinet, vibraphone, prepared piano and ebow.
Commissioned for Psappha Ensemble for the Bangor New Music Festival 2013

Belovodia is a mystical place in the Altai Mountains in Nprthern Mongolia where a society of people were said to have lived as long as 300,000 years ago. It is believed that the people lived in total spiritual harmony with one another and their environment.

This piece was inspired by the book Entering the Circle, a factual account by Olga Kharitidi, Siberian psychiatrist from Novosibirsk, about a journey she made into the Altai Mountains to seek the help of a shaman in order to try and find a cure for her sick friend who had a mysterious and seemingly incurable illness. The Altai Mountains are wild and desolate and it took Olga several days to reach the village in which the shaman lived. Once she reached Umai (the shaman) a series of bizarre and disconcerting events took place.

The piece explores several shamanic ideas musically, and the movements are named after either the spirit beings, or themes that have a major importance in shamanism, such as cycles within nature. There are hints of throat singing, chanting, bells, and the atmosphere of desolate Mongolian plains. Belovodia is divided into 6 movements:

Yohor – circle dance
Gazar Eej Etugan – mother earth
Golomto – daughter of fire (supposedly the daughter of mother earth and father heaven)
Köke Möngke – father heaven
Hiimori – wind horse (the being who aids the shaman on his or her journey to other worlds and dimensions)
Yohor

For Psappha
March 2013

This is a piece in 6 movements:

Yohor (Circle Dance):
Instrumentation: Flute, Clarinet (or Bass), Vibraphone, Piano
ca. 1.5 minutes

Gazar Eej - Etugan (Mother Earth)
Instrumentation: Flute, Clarinet, Vibraphone, Piano, Violin, Viola, Cello
ca. 1.5 minutes

Golomto (Daughter of Fire)
Instrumentation: Flute, Clarinet and Bass, Vibraphone, Piano, Violin, Viola, Cello
ca. 2.22 minutes

Köke Möngke (Father Heaven Blue Sky)
Instrumentation: Flute, Clarinet and Bass, Vibraphone, Piano, Violin, Viola, Cello
ca. 3.25 minutes

Hiimori (Wind Horse)
Instrumentation: Flute, Clarinet and Bass, Vibraphone, Piano, Violin, Viola, Cello
ca. 2 minutes

Yohor (Circle Dance)
Instrumentation: Vibraphone, Piano, Violin, Viola
ca. 1.30 minutes

Performance Directions

There is no break between movements

Piano

Pianist will require:

- 2 hard Guitar plectrums
- 4 x 20mm bolts in order to prepare the following strings: D4, E4, A4 and C5 (middle C being C4). Insert between strings 1 and 2
- A Yale key on string (so there's no risk of it falling into the piano)
- 3 square white stickers to put flat across top of piano strings to be bowed (not wrapped a round the strings), so the strings can be easily found
- Subtle amplification
- Either an Ebow used on normal setting (not harmonic) and a spare 9V battery or alternatively 3 X 1 metre long nylon bows made from fishing line wire, rubbed with rosin. The most ideal weight of fishing line is 40Lb 20Kg 0.55mm. If using fishing line wire, fold over a little kink at the end so they can be easily threaded through the strings. The strings need to be thread before the start of a performance. The notes to be thread are C4, F4 and G5. However, if using an ebow, the stickers need to be placed on A3, Bb3 and F4

*Preparing the piano:
Press sustain pedal to raise dampers, then slide a screw driver between the strings and rotate, which will part the strings. Then insert the bolt.

Vibraphone:
Will require: 1 double bass bow
Cord-wrapped hard mallets

Clarinet
Play particularly low notes an octave higher on normal Bb clarinet if no Bass Clarinet is available.

Strings:
It will be necessary for violin and viola to memorise bars 141-149

Cello
Please see the video clip provided for the technique from bar 97-102 and again at 140 (Technique A).
A description of the technique is: lightly and intermittently tap the harmonic nodes, alternating between the two strings.
The bow plays on the two strings as a double-stop, no tremolo, with a slow, light, airy, noisy stroke.

Yohor

(Circle Dance)

Instrumentation: Flute, Clarinet (or Bass), Vibraphone, Piano

ca. 1.5 minutes

Belovodia

Yohor

Katherine Betteridge

♩ = 112

Flute

B♭ Clarinet

Bass Clarinet
in B♭

mf

mf

Vibraphone

♩ = 112

Piano

p

prepared notes (D4,E4,A4,C5)

con led

11

Fl.

B. Cl.

To Cl.

mf

Vib.

Pno.

21

Fl.

Clarinet in B♭

Cl.

motor on slow speed.
arco

(arco)

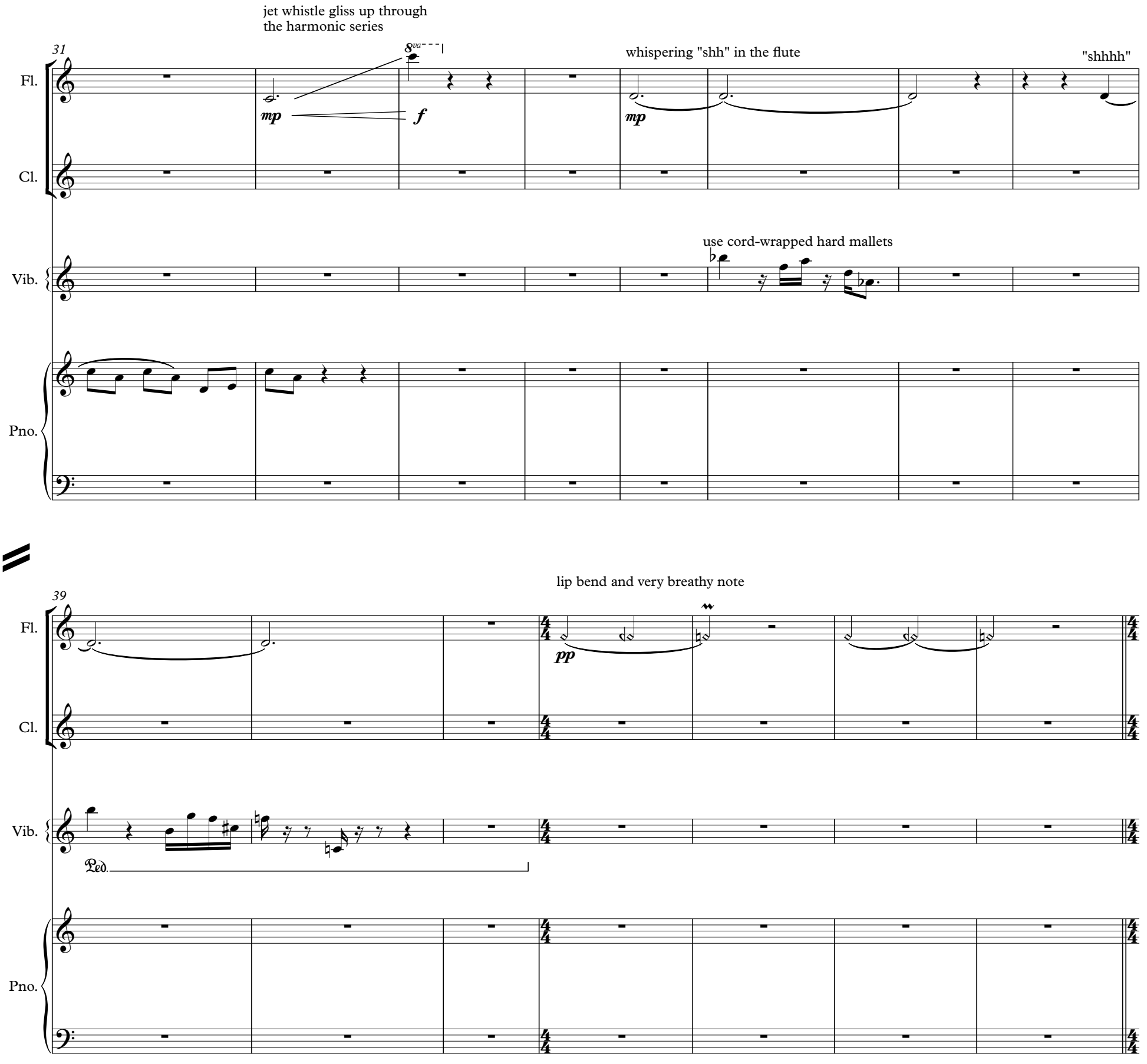
mf

Ped.

Ped.

Vib.

Pno.


31
jet whistle gliss up through
the harmonic series
8va
whispering "shh" in the flute
"shhhh"
Fl.
Cl.
mp
f
mp
use cord-wrapped hard mallets
Vib.
Pno.
39
lip bend and very breathy note
pp
Ped.

Gazar Eej - Etugan
(Mother Earth)

Instrumentation: Flute, Clarinet, Vibraphone, Piano, Violin, Viola, Cello

ca. 1.5 minutes

Gazar Eej - Etugan

46

♩ = 60

Fl.

Cl.

Vib.

♩ = 60

Pno.

Vln.

Vla.

Vlc.

mf

mf

f

f

8vb

mf

mf

The glissandi here is not linear, but accelerates towards the target note.

gliss.

gliss.

gliss.

gliss.

gliss.

57

Più mosso ♩ = 90

(flutter tongue)

Fl.

Cl.

Vib.

Più mosso ♩ = 90

Pno.

(8)

Vln.

Vla.

Vlc.

mf

mf

mp

gliss.

67

Fl.

Cl.

Vib.

Pno.

Vln.

Vla.

Vlc.

mf

f

attacca.

Golomto
(Daughter of Fire)

Instrumentation: Flute, Clarinet and Bass, Vibraphone, Piano, Violin, Viola, Cello

ca. 2:22 minutes

Golomto

Più mosso - Allegro

♩ = 130 - instruments to enter according to 130. however, after entering then ad lib and play freely until piano interrupts with crash chord

75

Fl.

improvise pitches and rhythms spikily as shown

pp

have both clarinets ready to use for this movement
clarinet in B♭ comes first

Cl.

improvise pitches and rhythms spikily as shown

pp

Più mosso - Allegro

♩ = 130 - instruments to enter according to 130. however, after entering then ad lib and play freely until piano interrupts with crash chord

Vib.

improvise pitches and rhythms spikily as shown

pp

Pno.

improvise pitches and rhythms spikily as shown.
Pluck inside piano with two plectrums.

Vln.

improvise pitches and rhythms spikily as shown

Pizz

pp

repeat until interrupted by piano
(approx 20 seconds)

Vla.

improvise pitches and rhythms spikily as shown

pp

repeat until interrupted by piano
(approx 16 seconds)

Vlc.

ad lib note pitches and rhythms
play notes staccato but as if something
is stopping the bow, so with a
crunch sound at the end of each note.

pp

repeat until interrupted by piano
(approx 16 seconds)

81

Fl.

Repeat until interrupted by piano
(approx 10 seconds)

♩ = 60

Gradual crescendo

fff

Cl.

Repeat until interrupted by piano
(approx 10 seconds)

Gradual crescendo

fff

mp

mp

Vib.

Repeat until interrupted by piano
(approx 10 seconds)

Gradual crescendo

fff

Pno.

repeat twice

gradual crescendo

move to sitting back
on piano stool if
stood up

♩ = 60

cluster - all keys round the lowest register using both
hands (not specific notes)

sfz ffff

Ped.

Vln.

Gradual crescendo

fff

Vla.

Gradual crescendo

fff

Vlc.

Gradual crescendo

fff

93

Fl.

no pitched note, just blowing air into the flute - cover most of the holes (for a deeper more hollow sound). loose embouchure

mp

Cl.

To B. Cl.

Bass Clarinet in B♭

no pitched note, just blowing air into the clarinet. cover most of the holes (for a deeper, more hollow sound). loose embouchure

mp

Vib.

arco
motor on medium

p

Pno.

gently press sustain pedal and hold down, then tap the low strings inside lid with both hands alternating fast.
a rumbling tremolo

pp *mp* *pp* *mp* *pp* *pp* *mp*

Ped.

Vln.

col legno, ricochet

0

pp

0

0

Vla.

col legno, ricochet

0

0

0

Vlc.

Please see the video clip provided for this technique (It also appears at bar 140). Video titled "Technique A".
A description of the technique is: lightly and intermittently tap the harmonic nodes, alternating between the two strings. The bow plays on the two strings as a double-stop, no tremolo, with a slow, light, airy, noisy stroke.

III
IV

pp *mp* *pp*

99

Fl.

B. Cl.

To Cl.

Clarinet in B♭

Vib.

ppp

Pno.

pp

Vln.

0

normale

ppp

Vla.

0

normale

Slide artificial harmonic down from top of C string to bottom, repeating the action until bar 2 of next movement.
The harmonics should sound like seaguls!
Vln,Vla and Vlc must be unaligned with a randomised, non-metronomic feel.
The longer time is taken over the harmonics, the more effective.

Vlc.

III
IV

pp *mp* *pp*

senza vib.

p

gliss.

mp

106

Fl.

Cl.

Vib.

ppp

Pno.

pp

(prepared notes)

Slide down from top of G string to bottom, repeating the action until the end of the movement.
The harmonics should sound like seaguls!
Vln,Vla and Vlc must be unaligned with a randomised, non-metronomic feel.

Vln.

gliss.

mp

Slide down from top of C string to bottom, repeating the action until the end of the movement.
The harmonics should sound like seaguls!
Vln,Vla and Vlc must be unaligned with a randomised, non-metronomic feel.

Vla.

gliss.

mp

Vlc.

gliss.

attaca.

Köke Möngke
(Father Heaven - Blue Sky)

Instrumentation: Flute, Clarinet and Bass, Vibraphone, Piano, Violin, Viola, Cello

ca. 3:25 minutes

Köke Möngke

114

♩ = 60

Fl.

Cl.

pp

pp

Vib.

♩ = 60

use ossia notes if using nylon bows

Pno.

depress sustain pedal and place ebow on string at arrow. Allow the sound to grow

Ped. *sempre l.v.*

p

(ebow)

Vln.

Vla.

Vlc.

p

pp

gliss.

122

Fl.

Cl.

Vib.

Pno.

Vln.

Vla.

Vlc.

131

Fl.

Cl.

Vib.

Pno.

Ped. *sempre l.v.*

use key inside piano to skim strings in middle registers

let echo settle

hit piano frame
in most
resonant place

let echo settle

p

extreme rubato
pluck top strings inside the piano
with plectrum

Vln.

Vla.

Technique A

III

IV

Vlc.

pp

140

Fl.

Cl.

Vib.

Pno.

hold sustain down whilst violin and
viola move over to play
their notes into the piano

Ped.

move to piano to play these
9 bars into the piano

Move back to seat
after last note

Vln.

f

Move to piano to play these
9 bars into the piano

Move back ***f***
to seat
after last
note

Vla.

Vlc.

mp ***pp*** ***f*** ***pp***

attaca.

Hiimori
(Wind Horse)

Instrumentation: Flute, Clarinet and Bass, Vibraphone, Piano, Violin, Viola, Cello
ca. 2 minutes

Hiimori

150

Allegro ♩ = 120

Fl.

Cl.

Motor on fast speed

Allegro ♩ = 120

Vib.

Pno.

Molto Sul Pont gradually moving to normale ⟶ normale

fast arpeggio from bottom to top (not double stops) doubling the top and bottom notes

Vln.

pp

Vla.

Vlc.

166 flutter tongue

Fl.

ff

Cl.

ff

Vib.

ff

Pno.

Vln.

ff

fast arpeggio Fast arpeggio from bottom to top (not double stops) doubling the top and bottom notes

Vla.

ff

fast arpeggio Fast arpeggio from bottom to top (not double stops) doubling the top and bottom notes

Vlc.

ff

172

Fl.

Cl.

Vib.

Pno.

Vln.

Vla.

Vlc.

178

Fl.

Cl.

Vib.

♩ = 60

no note, just blowing
air into the flute

ppp

no note, just blowing
air into the clarinet

ppp

Pno.

♩ = 60

ppp

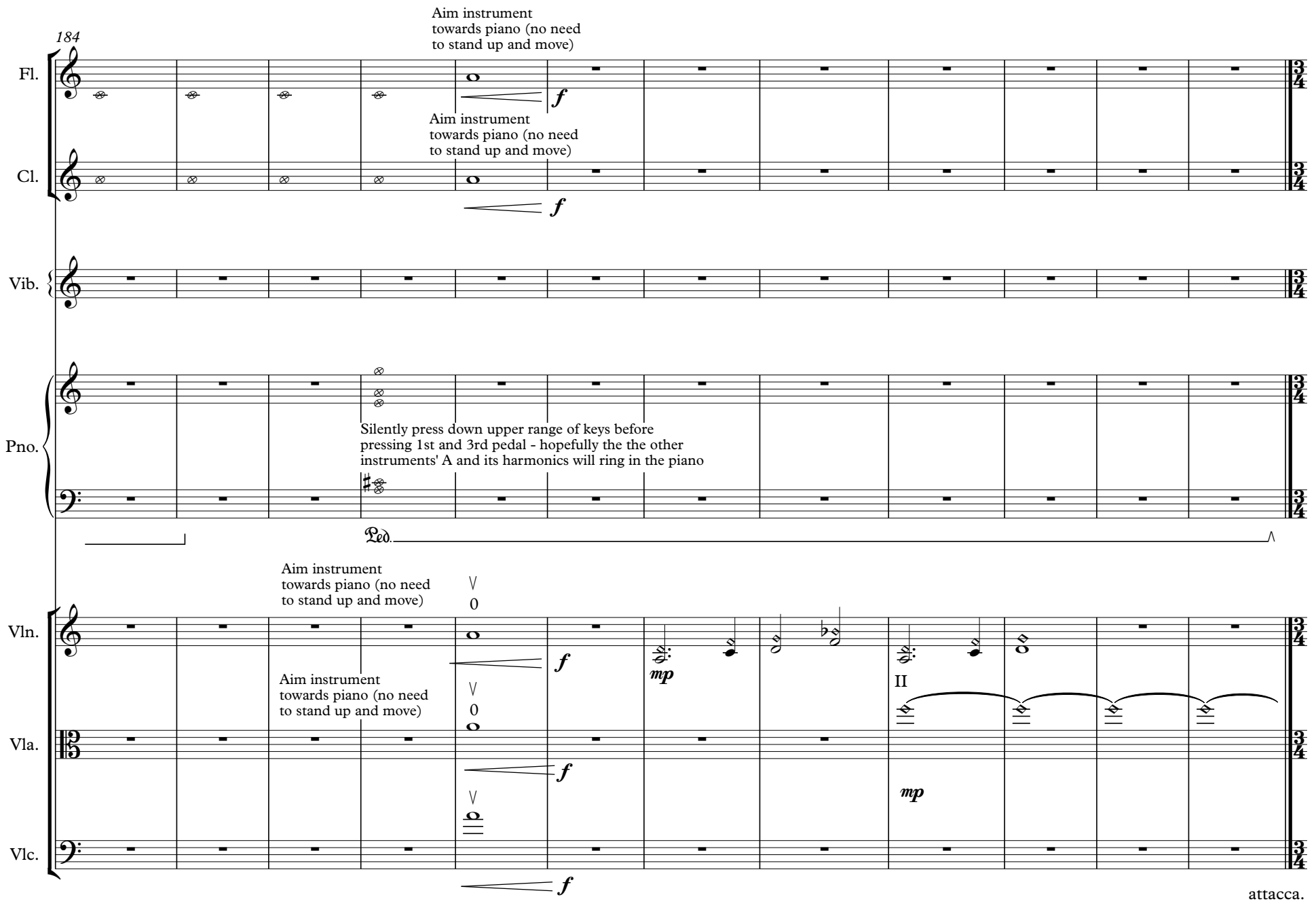
stroke low strings
with hand gently

Ped.

Vln.

Vla.

Vlc.


184
Fl.
Cl.
Vib.
Pno.
Vln.
Vla.
Vlc.
Aim instrument towards piano (no need to stand up and move)
Aim instrument towards piano (no need to stand up and move)
Silently press down upper range of keys before pressing 1st and 3rd pedal - hopefully the the other instruments' A and its harmonics will ring in the piano
Ped.
Aim instrument towards piano (no need to stand up and move)
Aim instrument towards piano (no need to stand up and move)
0
0
f
f
f
f
mp
mp
II
attacca.

Yohor
(Circle Dance)

Instrumentation: Vibraphone, Piano, Violin, Viola
ca. 1.30 minutes

Yohor

♩ = 112

196

Fl.

Cl.

(motor off)

dolce

Vib.

p

l.v.

♩ = 112

Pno.

depress 3rd pedal and place ebow here
(if the note hasn't resonated by bar 203
just leave the ebow on the string so it is heard briefly)

ebow or nylon bow

dolce

sul tasto

Vln.

p ***mp*** ***p***

Vla.

Vlc.

206

Fl.

Cl.

Vib.

Pno.

Vln.

p ***mp*** ***p***

dolce

sul tasto

Vla.

p

Vlc.

216

Fl.

Cl.

Vib.

Pno.

Vln.

Vla.

mp p

p mp

Vlc.

224

Fl.

Cl.

Vib.

Pno.

Press sustain pedal and hold

Ped. *

Vln.

Vla.

p

Vlc.

3. *Forest of Non-Ordinary Reality* (2016)

5 minutes long

First hand experiences of states of non-ordinary reality have influenced all my music, and I feel there is an element of this in every composition. However, *Forest of Non-Ordinary Reality* addresses the idea of crossing the boundary of realities directly. This piece was inspired by Shamanic traditions in the generic sense and does not refer to any specific localised tradition.

The piece starts with only acoustic instruments playing. The idea was that the acoustic part of the piece should represent our normal day-to-day reality – standing outside a forest, hearing and feeling the elements. The shift in reality occurs halfway through, which I attempt to convey by means of mp3s sent out to the mobile phones of members of the audience. *Forest of Non-Ordinary Reality* clearly plays with the idea of boundaries between realities, but it also plays with the boundary between audience and musicians. The phones act like a mini orchestra as a variety of different tracks are relayed, so that the auditorium becomes filled with different sounds emanating from all directions, instead of all the music coming from the stage. The live musicians rest their notes upon this sea of sound and improvise around it. The sub-bass speaker needs to be effectively 'played' – faded in and out sensitively. The musicians improvise along with the phones. It is more effective as a piece when there is a larger audience playing a larger number of mp3s.

I came across the idea of using audience members' mobile phones in a similar way at an event called "Sanctuary" in Galloway Forest Park, Scotland in 2015 in a composition called *Murmurate* by Tim Shaw and Sébastien Piquemal. In this composition, the audience (a group of about 15 people) were taken away from the main camp and guided deep into the forest. The composers asked everyone who was willing to participate to log their phones into the wifi they had set up, and they then proceeded to send different clips of digitised music to everyone's phones. The effect was extremely moving and potent, partly due to the fact that everyone stood in different locations on a large rock overlooking the forest, so the sounds coming from the phones streamed from all directions. The setting was further enhanced that night

by a full blood red moon and a clear cloudless sky. The overall effect was totally magical and it prompted me to experiment with a similar idea myself.

The recording of Forest of Non-Ordinary Reality (in Folder 2) is a live concert which took place on 5th January 2016 in Powis Hall at Bangor University and was performed by Okeanos ensemble with mobile phones belonging to audience members. The sub-bass speaker was controlled by Katherine Betteridge.

Katherine Betteridge

Forest of
Non-Ordinary Reality

For

Shakuhachi
Cello
Koto
Hand Percussion
Mobile Phones

Duration: ca.5 minutes

Painting by Katherine Betteridge

Programme Note

This piece was a commission for the ensemble Okeanos to perform at the joint British Forum for Ethnomusicology and the Royal Music Association postgraduate conference in Bangor 2016.

This composition relates to the experience of entering a forest, but within a dream or an altered state such as in shamanic journeying where aspects of normal reality become surreal and slanted.

The first two and a half minutes of music take place outside the forest looking in – in normal reality, with wind and birdsong. The drumbeat represents a shift in consciousness, and when the phones start playing, the dream reality begins. I imagine within the dream forest there to be unreal elements, such as light coming up from cracks inthe ground or out of trees, and strange, dreamlike beings moving about, just out of sight.

The mp3s played through the phones are representative of the strange ethereal sounds coming from around the forest.

The piece was initially inspired by a walk during a storm. Strong winds and driving rain forced me to move towards a pine forest for shelter. Outside the forest, trees were making a lot of noise as they were battered by the elements, but as I entered the forest I experienced a calm, quiet and surreal atmosphere, with the pine needles on the floor dampening the sound and the encasing of the closely planted trees protecting me. This reminded me of a dream I once had, in which I found myself walking through a forest, with lights shining up from the soft padded mossy floor, in between the large roots of trees and sometimes shining out of the trees themselves. The entry of the phones indicates this shift in reality.

Performance Directions

This composition can be performed purely as an acoustic piece or for acoustic instruments, audience member's mobile phones and a track played through a sub-bass speaker. There are 14 mp3 tracks provided with the composition. Numbers 1 - 13 need to be sent to audience members to load onto their phones in advance of the performance – one track per audience member. If there are more than 13 people in the audience (!), send the higher numbered tracks (from Layer 8 - 13) out to more audience members (the more people have the tracks, the better). The tracks are all different in order to create an orchestra of mobile phones, so if a group of people will be sat together, try to give them all different mp3s. The idea is to have a variety of the different tracks coming from across the room. In the premiere of the piece it was possible to send out emails in advance with the track attached.

If this is also how you intend to share the tracks, please give the following instructions in the email:

- *Please download the track onto your mobile phone and check it plays before the performance.*
- *Turn the volume as high as it will go without distorting*
- *Set your phone to airplane mode so it does not go off mid performance*
- *Bear in mind that once you have pressed play, nothing will happen for 15 - 25 seconds (depending on which track you have been sent) – this is correct*
- *Press play when you are signaled to do so by the oboist – this will be about 2.5 minutes into the piece*
- *A visual signal will be explained and demonstrated before the start of the performance.*

The improvisatory second half, from bar 19 onwards, is open for the performers to play any extra instruments they may have with them. At the point in bar 17 marked with a star, the oboist needs to give the audience a signal to press play on the mp3s on their phones. Explain to the audience before starting the piece what the signal will look like.

Sub-Bass Speaker

There will be someone required to play the sub-bass mp3 which needs to be run from a phone or laptop through a mixing desk or interface to the sub-bass speaker. Press play once the oboist signals for the audience to press play on the phones. This track is purely to create a "rumbling" sound.

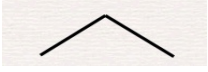
Cello

Bar 15: Lightly and intermittently tap the harmonic nodes shown, alternating between the two strings with the left hand. The bow plays a straight double stop (not tremolo), with a slow, light, airy noise stroke.

*See video demonstrating this technique

Bar 17: Trill between the harmonic and open string. Sometimes other partials may appear – this is fine, in fact, move the bow towards the bridge and then away from it to let other notes come through.

Shakuhachi

Bend note up, then down: 

Whenever there is a glissando, try to make the run smooth with no sounding separate notes – more of a portamento with all the microtones audible.

The two types of vibrato used in this piece are Ttsuki Yuri (wobbling the bamboo) and Yoko Yuri (shaking the head side to side)

Hand Percussion Required:

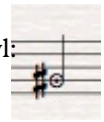
G# & F# Rins
Glass singing bowl (tuned to E)
Antique-cymbal (tuned to F)
Ocean Drum

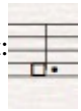
The Oboe and Koto players will need to sit next to one another as they will both be playing the percussion instruments.

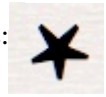
Oboe

You will need: G♯ & F♯ Rin, glass singing bowl and antique-cymbal

The G# & F# Rins, the glass singing bowl (tuned to E), and antique-cymbal (tuned to F) will all need to be within easy reach.

Run mallet around edge of bowl: 

Strike most resonant part of the side of the bowl with the mallet: 

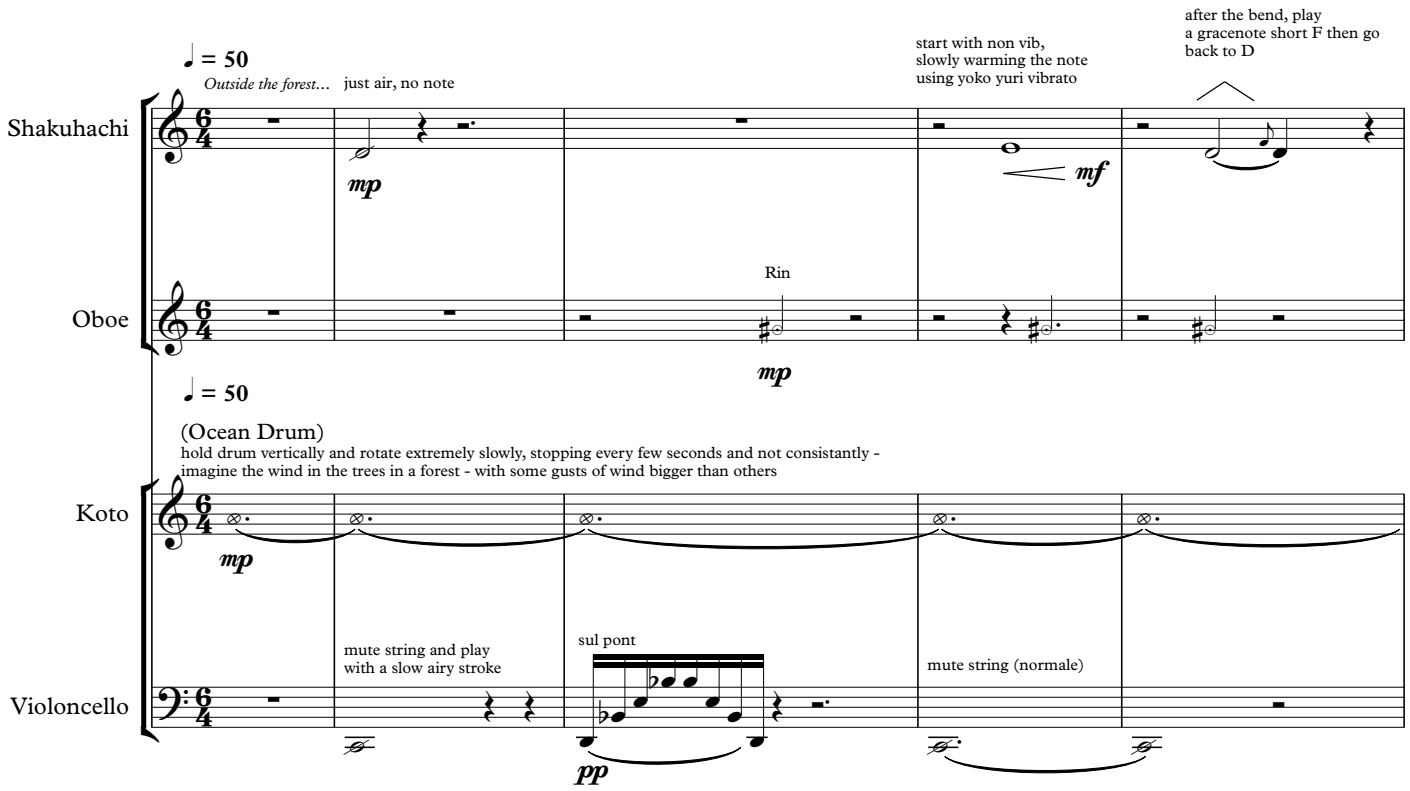
Signal to audience to press play on their phones: 

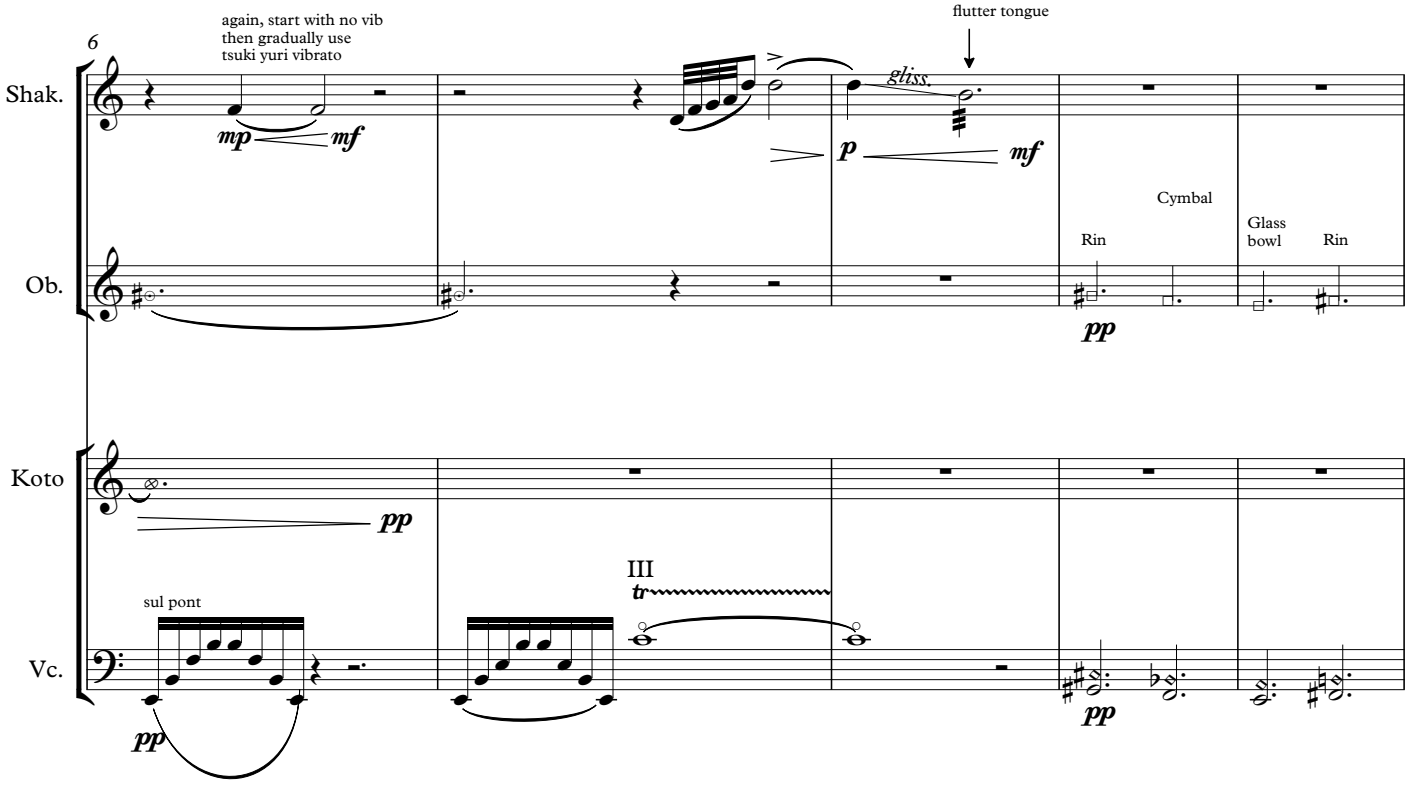
Koto

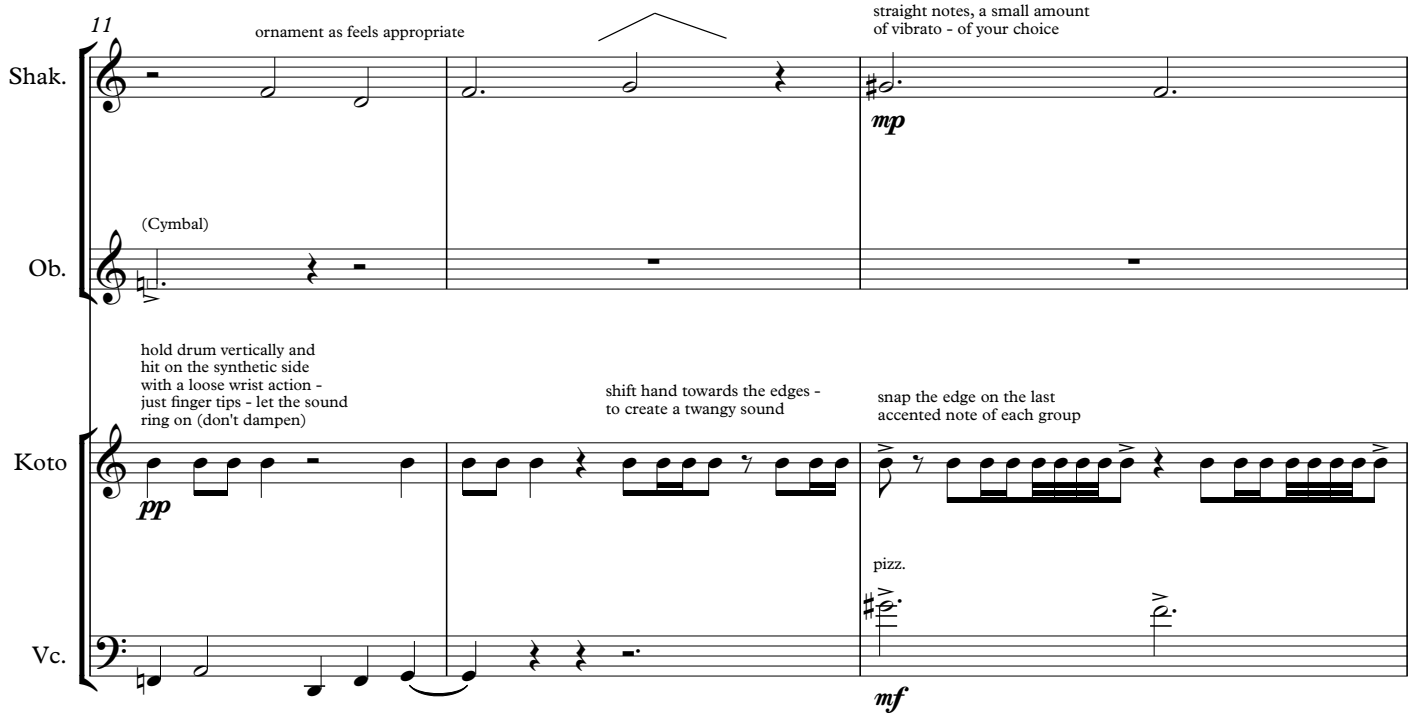
You will need: Rins, cymbal and ocean drum

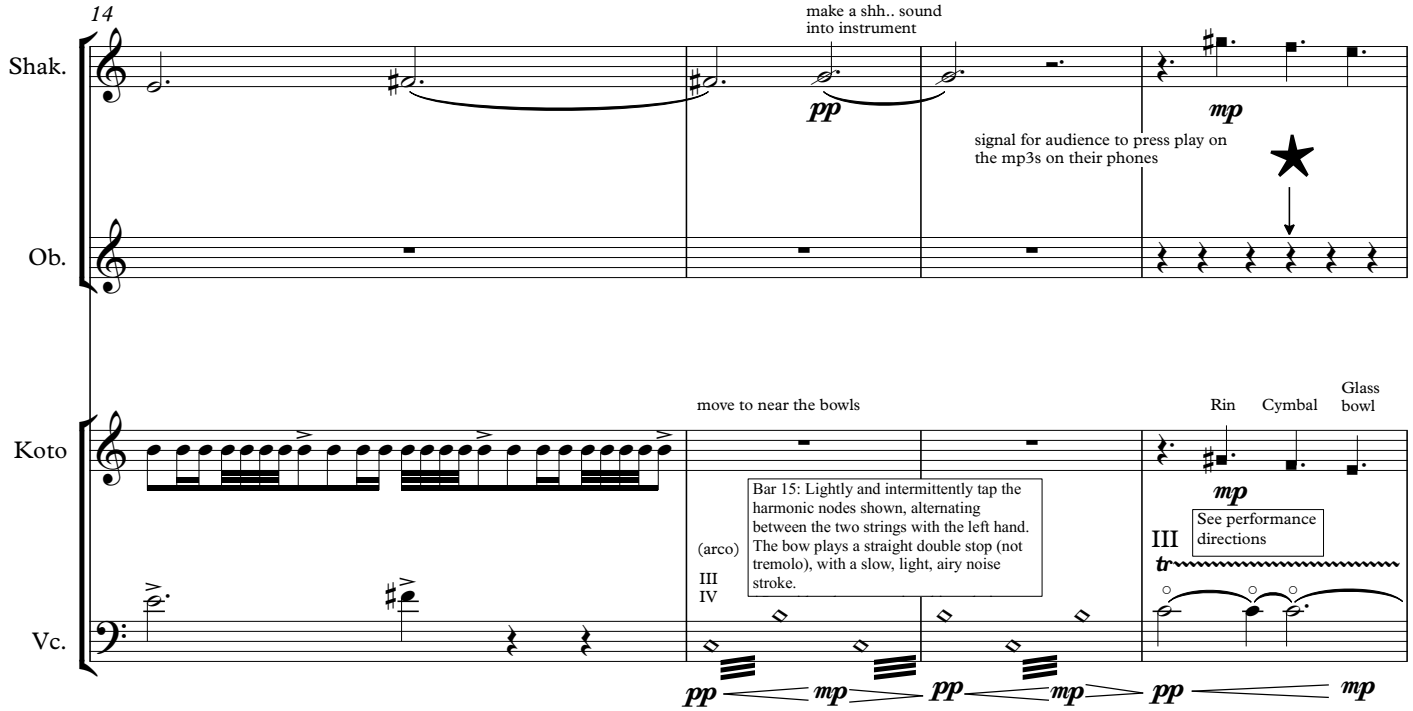
For Okeanos
January 2016

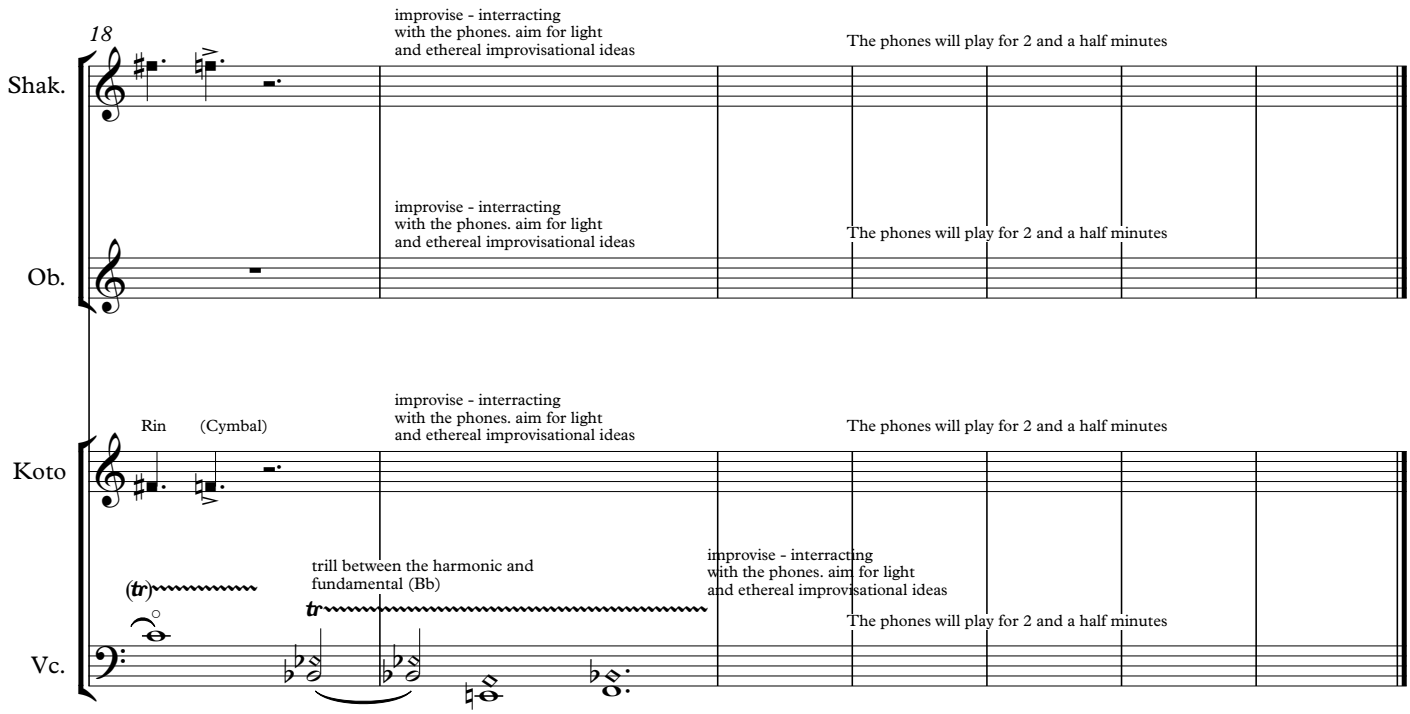
Forest of
Non-Ordinary Reality






11
ornament as feels appropriate
straight notes, a small amount
of vibrato - of your choice
Shak.
mp
(Cymbal)
Ob.
hold drum vertically and
hit on the synthetic side
with a loose wrist action -
just finger tips - let the sound
ring on (don't dampen)
shift hand towards the edges -
to create a twangy sound
snap the edge on the last
accented note of each group
Koto
pp
pizz.
Vc.
mf


14
make a shh.. sound
into instrument
Shak.
pp
mp
signal for audience to press play on
the mp3s on their phones
Ob.
move to near the bowls
Rin
Cymbal
Glass
bowl
Koto
mp
Bar 15: Lightly and intermittently tap the
harmonic nodes shown, alternating
between the two strings with the left hand.
The bow plays a straight double stop (not
tremolo), with a slow, light, airy noise
stroke.
See performance
directions
III
tr
(arco)
III
IV
Vc.
pp
mp
pp
mp
pp
mp


18
Shak.
Ob.
Koto
Vc.
Rin
(Cymbal)
improvise - interracting
with the phones. aim for light
and ethereal improvisational ideas
The phones will play for 2 and a half minutes
improvise - interracting
with the phones. aim for light
and ethereal improvisational ideas
The phones will play for 2 and a half minutes
improvise - interracting
with the phones. aim for light
and ethereal improvisational ideas
The phones will play for 2 and a half minutes
trill between the harmonic and
fundamental (Bb)
improvise - interracting
with the phones. aim for light
and ethereal improvisational ideas
The phones will play for 2 and a half minutes

4. *Elementa* (realisation 2016)

25 minutes long

Movements: Aqua
Ignis
Terra
Ventus

4.1 Aqua

Aqua focuses mainly on the idea of being in a boat out at sea, on a calm, hot day, with the sunlight just catching the lapping waves. This movement uses wine glasses and amplification. I have also included a few experimental techniques, such as blowing on the strings to create a quiet shimmering effect and tapping wine glasses, to represent the literal sound of a boat sail tapping against the mast.

4.2 Ignis

Ignis is the fastest movement in the composition. This movement uses electronics, at the beginning and at the end, to create the sounds of an erupting volcano. I created these sounds with a recording of myself playing a single note on the cello, and added a combination of effects, such as overdrive and extreme distortion. The movement again employs a variety of extended techniques in order to evoke certain aspects of fire or the volcano – aspects that I felt could not be realised using conventional means. "Crackle Technique" is used here in this movement to imitate the sound of smoldering lava burning everything in its path.

Sound is used suggestively here, by means of string trills played over the top of the recording. I have indicated that they should be played with a "gossamer" quality, which was inspired by George Crumb's *Black Angels*. I love the imagery the word "gossamer" creates – delicate, fine, spider web silk. In my quartet the gossamer effect is intended to evoke fine, light embers floating into the air after the volcanic eruption.

4.3 Terra

Terra attempts to create a tonal image of the forest environment, with the ambient noises of birds, insects, trees creaking, leaves rustling, water on leaves and a mixture

of other natural noises. The techniques called "L1" and "L2" are named after techniques used in the piece *Toccatina per Violino Solo* by Helmut Lachenmann. I have used these techniques here in my quartet to represent the sound of droplets of rain falling onto leaves and the leaves shaking under the weight of the water. I borrowed this technique from Lachenmann as I feel it is a good aural representation of the appearance of droplets of water on leaves. This movement comes from the experience of walking in woodlands and forests. L1 and L2 appear between mm. 185 and 207.

4.4 Ventus

When I began composing *Ventus* I attempted to create an impression of the sounds the Northern Lights would make if they made any sounds at all. The Sami people of northern Europe have spoken for years about the sounds of the Northern Lights. Then I discovered that if the radio waves from the lights are recorded, they actually do make an amazing variety of sounds! As also do solar flares. The sounds resemble clapping noises or descending and ascending whistles (known as pops and whistlers). These sounds are recorded using a very low frequency (VLF) radio receiver. I have tried to recreate some of these in a literal way (such as the glissandi from 239 onwards) but have also used actual recordings of the radio waves as part of the composition. The sounds were recorded by the astronomer Thierry Lombry and are included with permission.[6]

There are also evocative and suggestive *visually* inspired sounds of the Lights used between mm. 253 and 299. An attempt has been made to convey the Borealis through string crossings, or, more specifically, with the different effects used whilst the string crossings take place (sul ponticello, sul tasto etc) between mm. 253 and 298. This is intended to evoke different colours, shapes and movement in the sky. The accents shifting from player to player at the beginning of the movement are intended to convey the movement of the Lights across the sky.

The electronics in movements 1, 2 and 3 were created by myself on acoustic instruments with special effects.

[6] Luxorion. n.d. [Online]. http://www.astrosurf.com/luxorion/audiofiles-aurora.htm Accessed 2015

All strings within parts on the recording are also performed by myself

Katherine Betteridge

Elementa

For

Amplified String Quartet
and Electronics

Duration: ca.25 minutes

All instruments are notated at sounding pitch apart from viola in "Ignis"
which is notated at fingered pitch

Programme note

For string quartet, wine glasses and electronics

I chose to write a piece that represents specific examples of the 4 elements: water, fire, earth and air in that order. In the composition the elements are referred to by their Latin names and are represented by specific places and events. Aqua (water) is represented by the sea, Ignis (fire) by Katla – one of the largest and most ferocious volcanoes in Iceland. Terra (earth) is represented by a forest and Ventus (air) by the Aurora Borealis.

Performance directions

Throughout the score, all new or unconventional techniques which have a box around them are also boxed here with an explanation and also demonstrated in the video accompanying this document.

For performance of the piece to be effective and to create the stereo effect intended, particularly in the 4th movement (Ventus), the musicians need to position themselves in this order, stage left to right:

Violin 1 Viola Cello Violin 2

2 speakers are required for this piece and need to be placed at either side of the audience.

It is possible to perform this piece without amplification but the first movement has extremely quiet sections. Either with or without amplification, the performance space for this composition needs to be extremely quiet.

All samples are in the accompanying folder.

All musicians will need a microphone mounted on a microphone stand. The instrument needs to be easily moved away from the microphone, so a pickup microphone is not appropriate. A very small amount of reverb should be added.

Movement 1 – Aqua

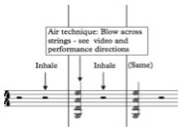
For this movement, the microphone needs to be directed at the part of the strings between the bridge and fingerboard but with the instrument being held in a vertical, upright position on the knee (demonstrated in video). The microphone volume level shown as 0db should be set to make the sounds clearly audible but not especially loud.

Each musician will require one wine glass containing enough water to reach the desired note indicated below (middle C being C4). The 1st violin will also require a spoon or metal object.

Violin 1	Glass tuned to G5
Violin 2	Glass tuned to E5
Viola	Glass tuned to F♯5
Violoncello	Glass tuned to F5

"Air Technique" – Violin 1, 2 & Viola, beginning of movement

See Video

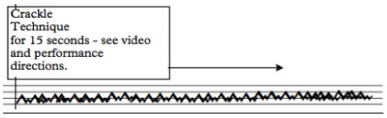


The microphones on the two violins and viola need to be directed at the strings between the bridge and fingerboard and the player needs to blow across the strings up at the top (demonstrated in the video). It will be necessary to try out various methods to find the most resonant place to blow on the strings. The violin/viola will need to be held out in front of the musician. It does not matter which strings ring more than others – it is the overall shimmering effect that wants to be achieved. The blown notes generally need to overlap just enough so there aren't repeated gaps, although this does not need to be uniform and occasional gaps are fine. The technique is also demonstrated in the accompanying video.

Movement 2 - Ignis

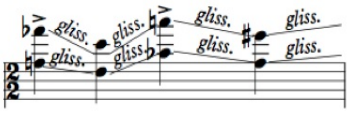
If the piece is being performed unamplified, just miss out the volcano sounds at the beginning.

"Crackle Technique" – Vln 1, 2 & Viola are near beginning of movement, cello in bar 122
See Video



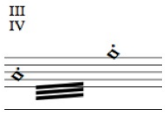
For Ignis, musicians playing the violins and viola will need to lay their instruments on their knees with the strings facing down between the legs to mute them, or alternatively they lay the instrument against their chest as shown in the video. They then hold the bow with one hand holding the frog and the other about 6 inches from the frog - down the wooden part of the bow. Gently press the hair down onto the most hollow part of the back of the instrument and press the bow into the hair, turning the bow gently, forcing the wood towards the hair and rotating the bow as doing so. As the bow turns, the wood creates tension with the hair and creates a crackling sound - like fire. This is a more gentle action than it sounds and will not cause damage to the instrument. The sounds created do not need to adhere to any kind of rhythm, however, the time taken to play the passage is indicated in seconds. This technique is also demonstrated in the accompanying video.

Please see video for how to play the glissandi in the first violin part starting at bar 100:



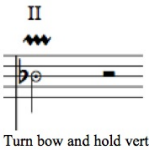
Movement 3 - Terra

"Technique A" – Cello part bar 170
See Video



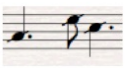
Lightly and intermittently tap the harmonic nodes, alternating between the two strings. The bow plays on the string as a double stop with a light, airy, noisy stroke. This is called "technique A". See accompanying video.

Technique L1 – all instruments, bar 185 onwards
See Video



Turn bow and hold vertically upright and place screw near to string. Put the bow lightly onto the string and pluck string with other hand, then scribble up and down the string with the screw rubbing the string about a centimetre in length. When practising, find the note shown on the score. The outcome of the note will be determined by where the screw is placed. See video.

Technique L2 – Violin 1, 2 & Cello, bar 198 onwards
See Video

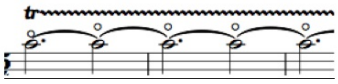


Replace left hand fingerings with the screw from the vertically held bow touching the strings in the places where the left hand fingers would be positioned for the required notes. See video.

Movement 4 - Ventus

Northern Light's Technique – all instruments, beginning of movement

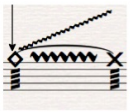
See Video



Trill on the harmonic node initially without bowing, placing the accents in the correct locations in the bar. The accents are intended to represent the movement of the colours in the sky and are placed in a way which shifts from player to player to give the feeling of something moving across the quartet. Please see video.

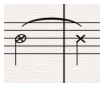
Solar Flare Technique – Vln 1, 2 & Vla, bar 233 onwards

See Video



Fast, excited, wide vibrato whilst playing tremolo with the bow. Left hand also slowly glissandos upwards. Please also see accompanying video.

Other uncommon notations - descriptions are on the score as these are more easily explained

Blow into F hole: 

Used in Movement 1 to indicate the playing of the wine glasses. There are several ways used of playing the wine glasses – all described in the score itself at different points, but this diamond note head is always used to signify that the note is to be performed on the wine glass: 

Draw the bow across the bridge: 

Tap the instrument (tapping either the front or the back is specified at set points, but this is the note head used): 

Elementa

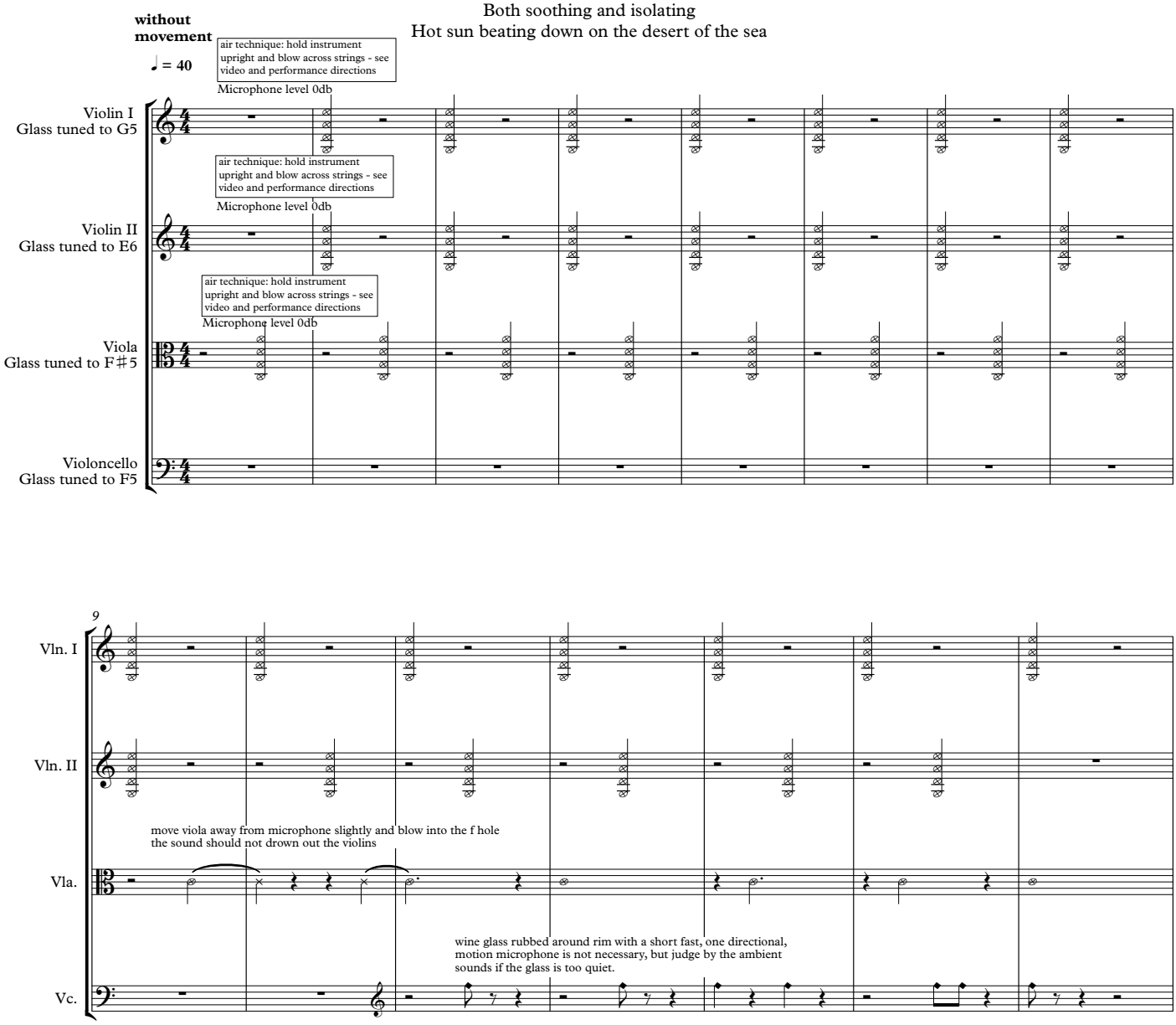
Katherine Betteridge

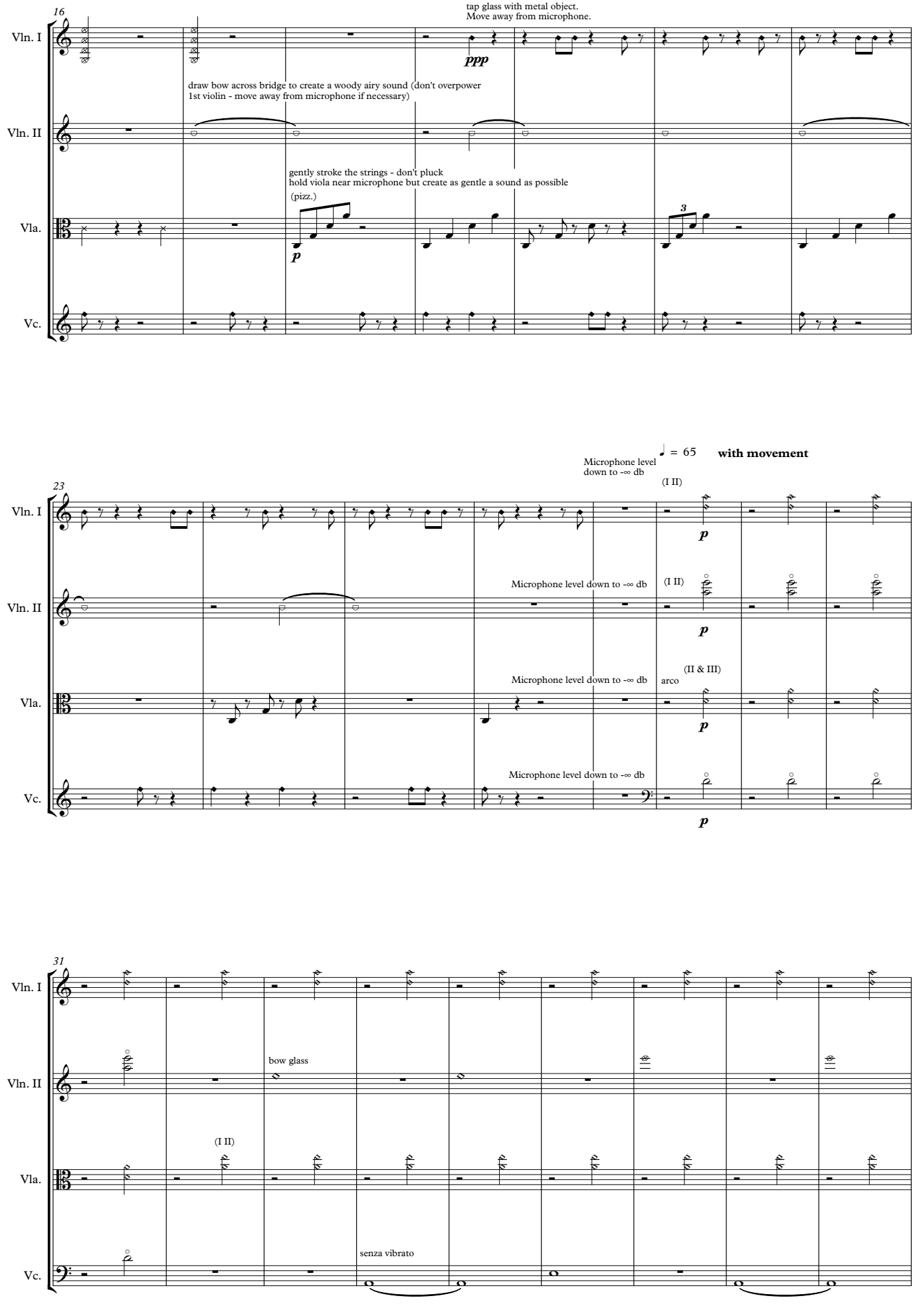
Aqua (Water)

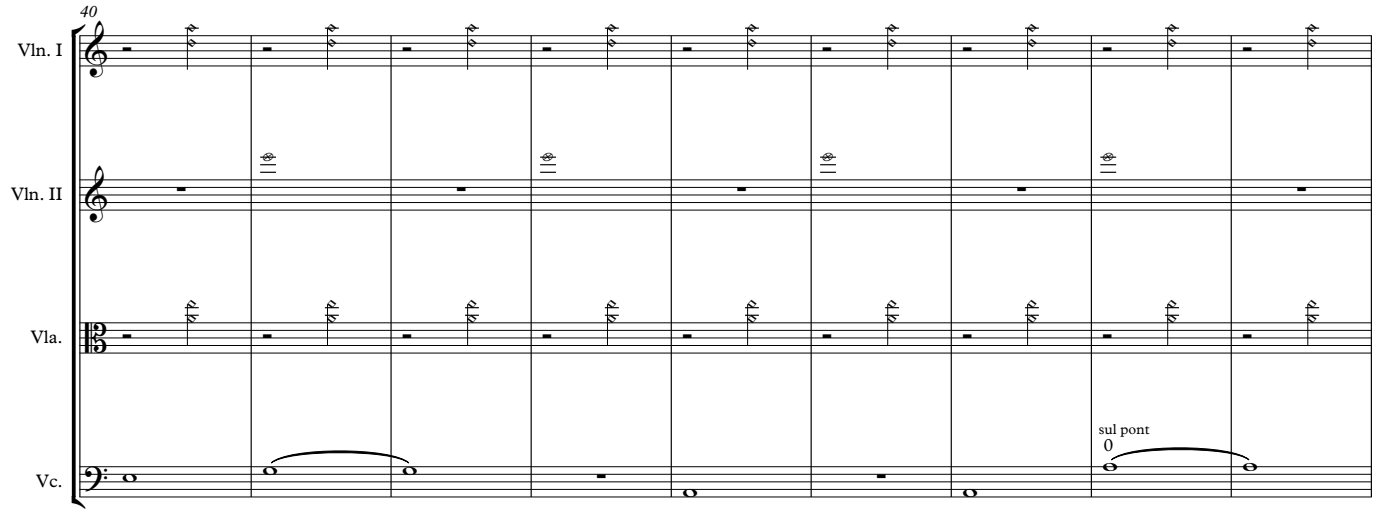
"Far out at sea"

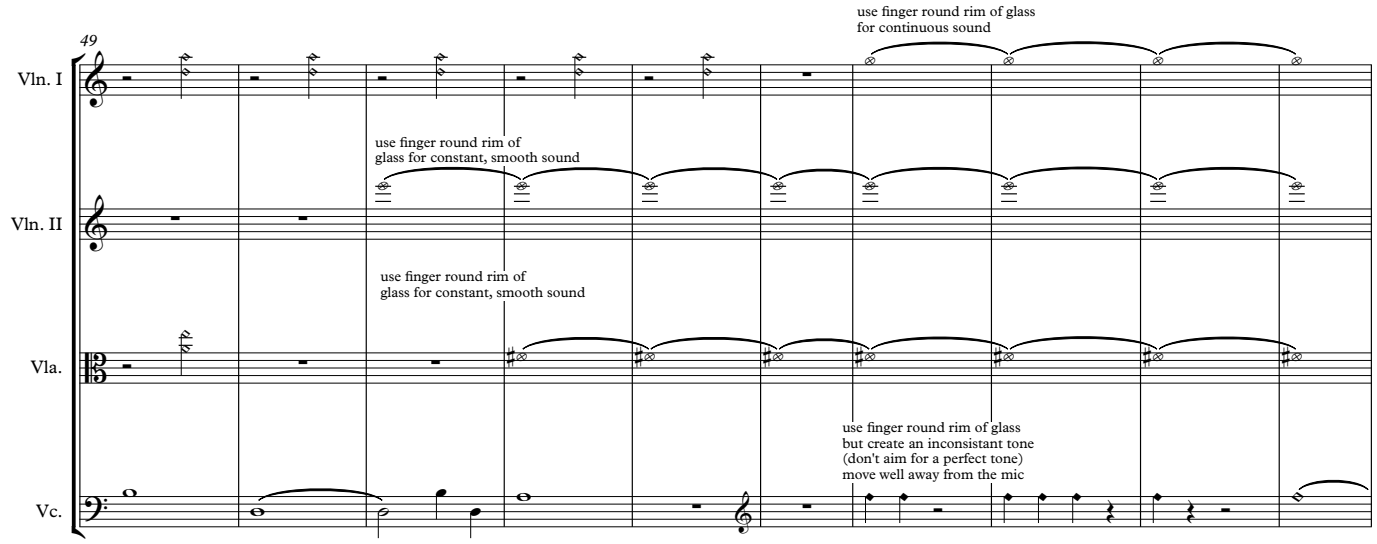
ca.5 minutes

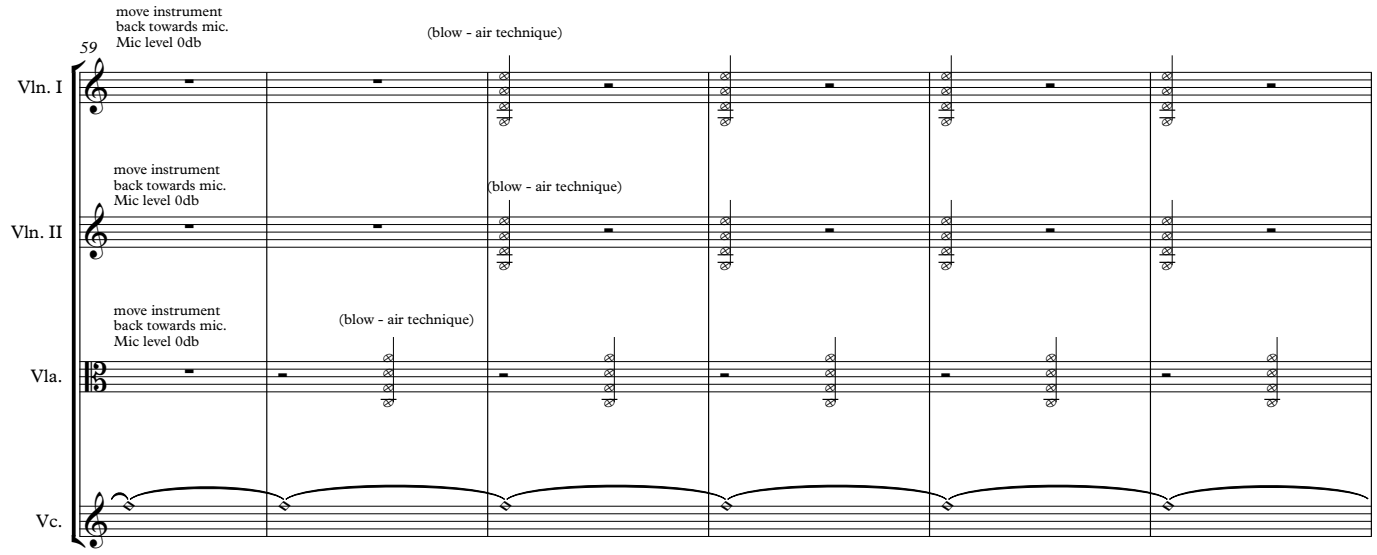
Endless horizon in every direction
Light reflecting off gentle lapping waves
Both soothing and isolating
Hot sun beating down on the desert of the sea

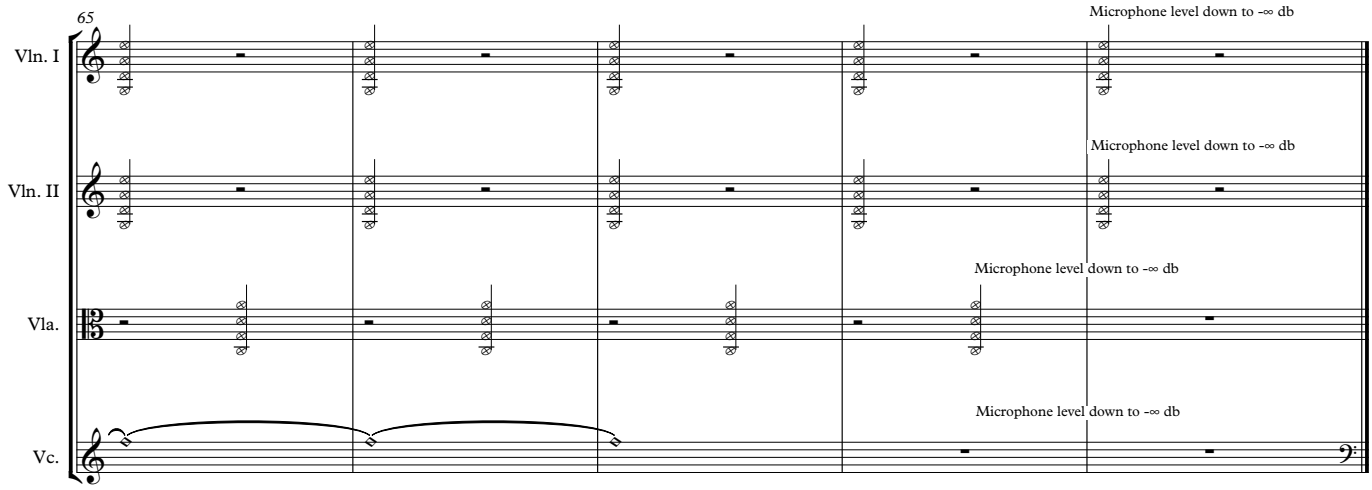



16
Vln. I
Vln. II
Vla.
Vc.
tap glass with metal object.
Move away from microphone.
ppp
draw bow across bridge to create a woody airy sound (don't overpower
1st violin - move away from microphone if necessary)
gently stroke the strings - don't pluck
hold viola near microphone but create as gentle a sound as possible
(pizz.)
p
3
23
♩ = 65
with movement
Microphone level
down to -∞ db
(I II)
Microphone level down to -∞ db
(II & III)
arco
31
bow glass
senza vibrato


40
Vln. I
Vln. II
Vla.
Vc.
sul pont
0


49
Vln. I
Vln. II
Vla.
Vc.
use finger round rim of glass for continuous sound
use finger round rim of glass for constant, smooth sound
use finger round rim of glass for constant, smooth sound
use finger round rim of glass but create an inconsistant tone (don't aim for a perfect tone) move well away from the mic


59
Vln. I
Vln. II
Vla.
Vc.
move instrument back towards mic. Mic level 0db
(blow - air technique)
move instrument back towards mic. Mic level 0db
(blow - air technique)
move instrument back towards mic. Mic level 0db
(blow - air technique)


65
Vln. I
Vln. II
Vla.
Vc.
Microphone level down to -∞ db
Microphone level down to -∞ db
Microphone level down to -∞ db
Microphone level down to -∞ db

Tumultuous vomiting and spewing
Molten searing lava creeping unhurriedly and mercylessly forward
Suffocating black smoke infused with ash
Unrelenting and ferocious
The earth creating itself

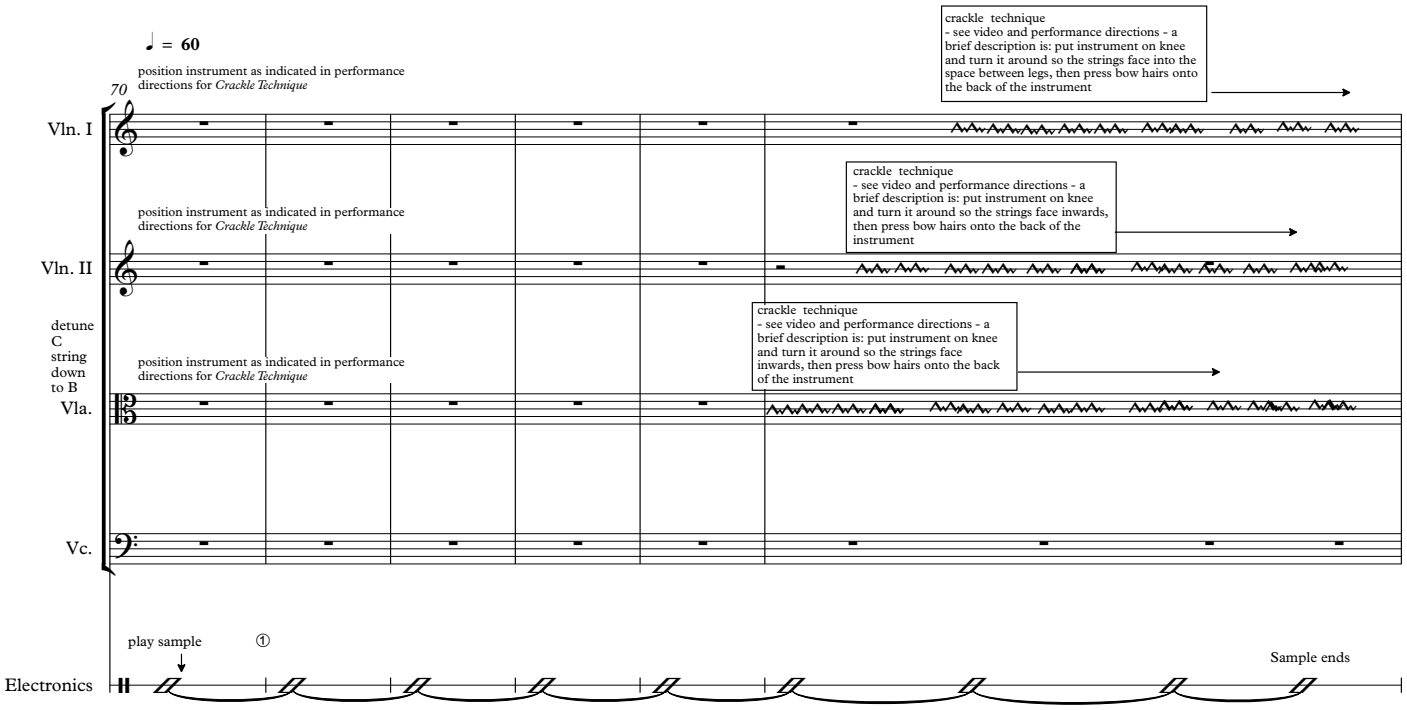
Painting and words by Katherine Betteridge

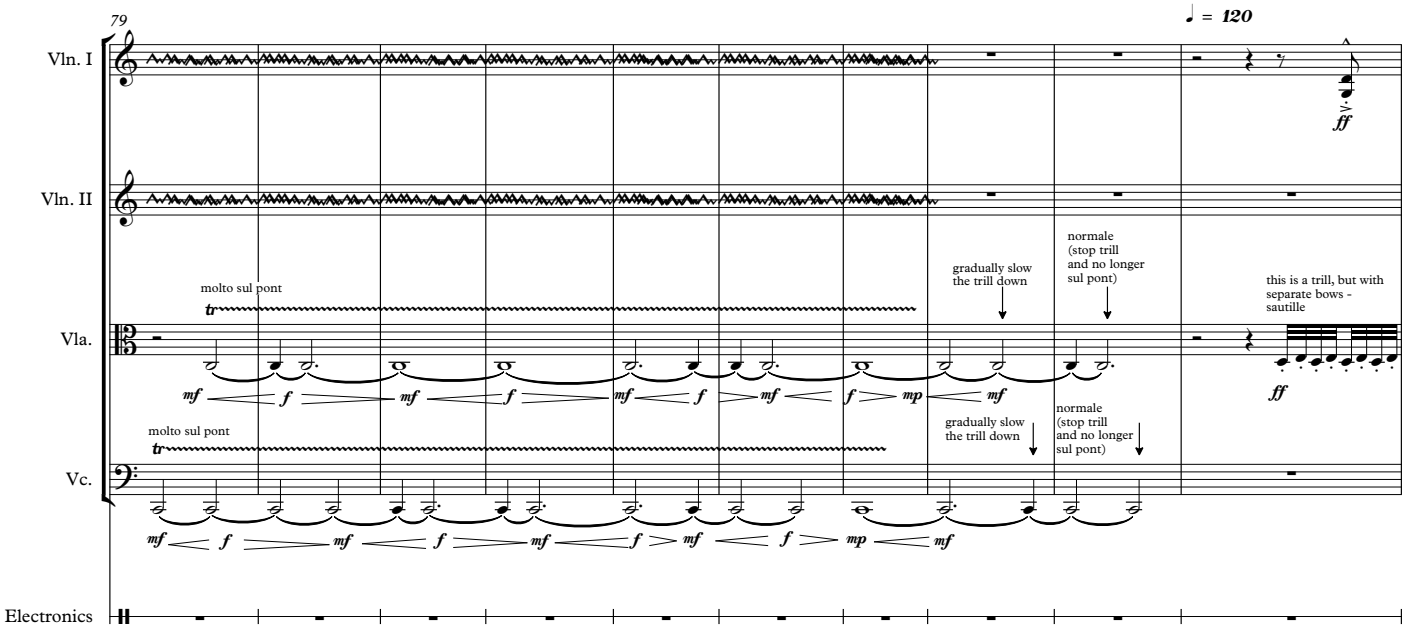
Ignis (Fire)

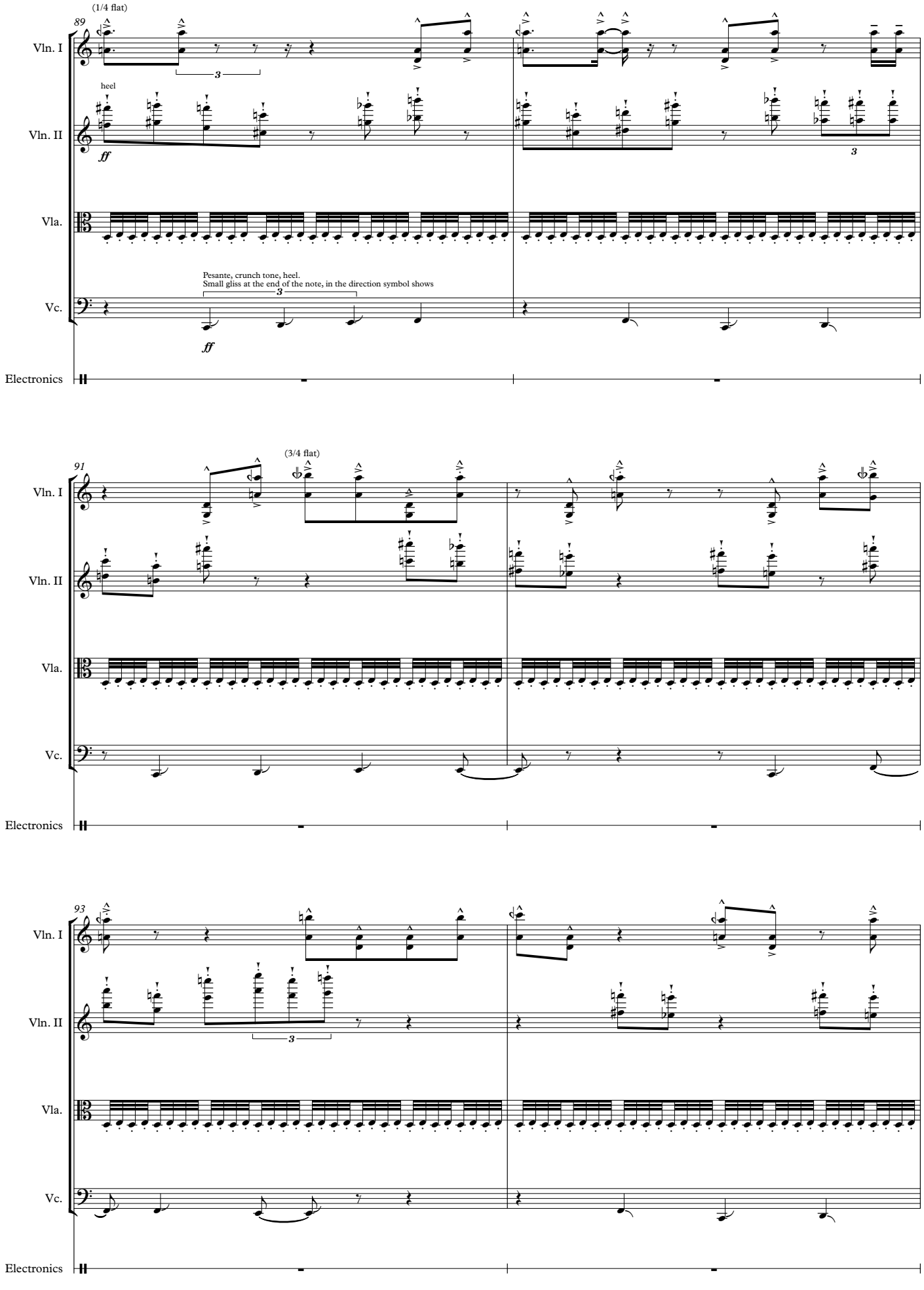
"Katla"

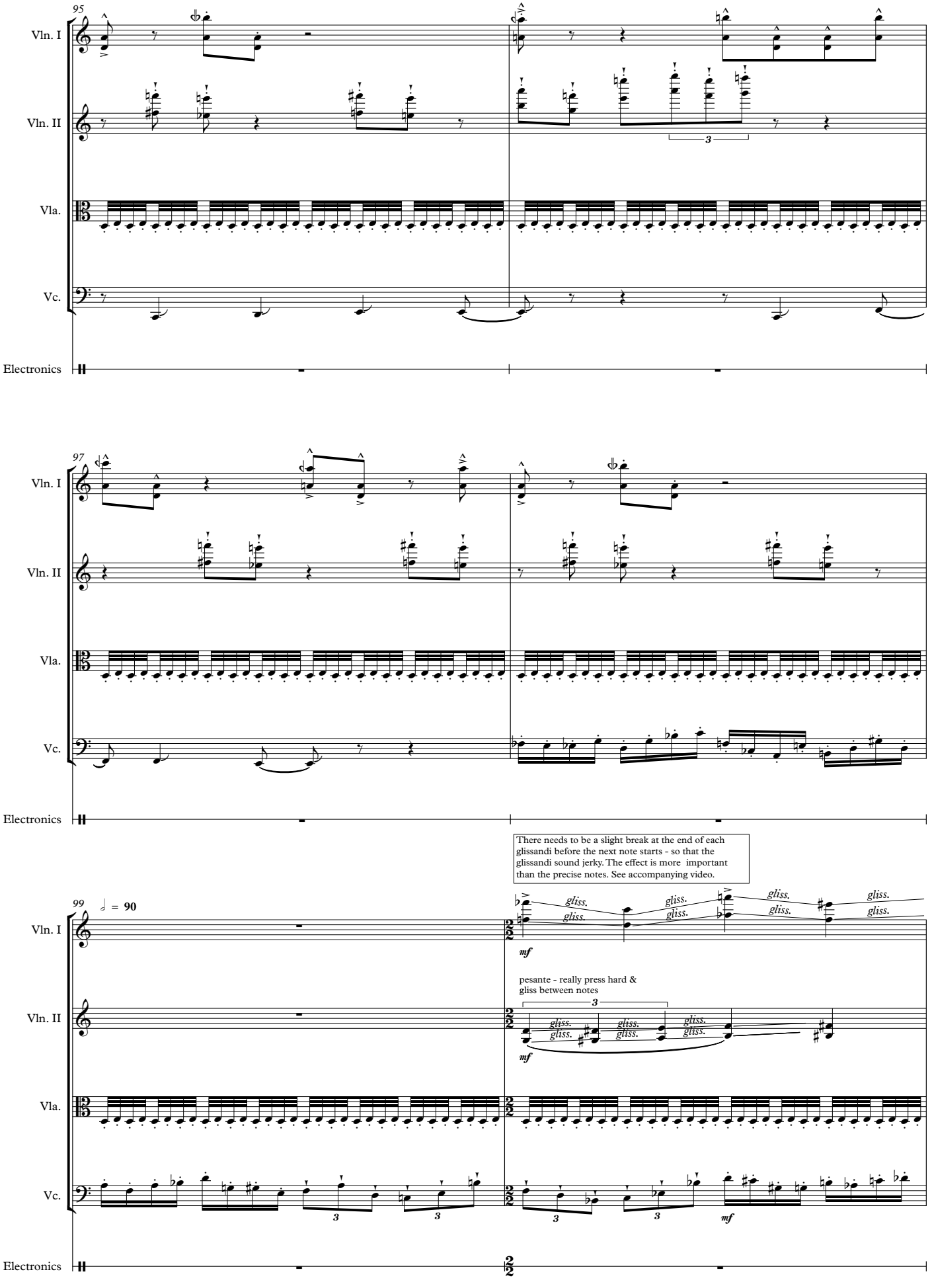
(One of the most ferocious volcanos in Iceland)

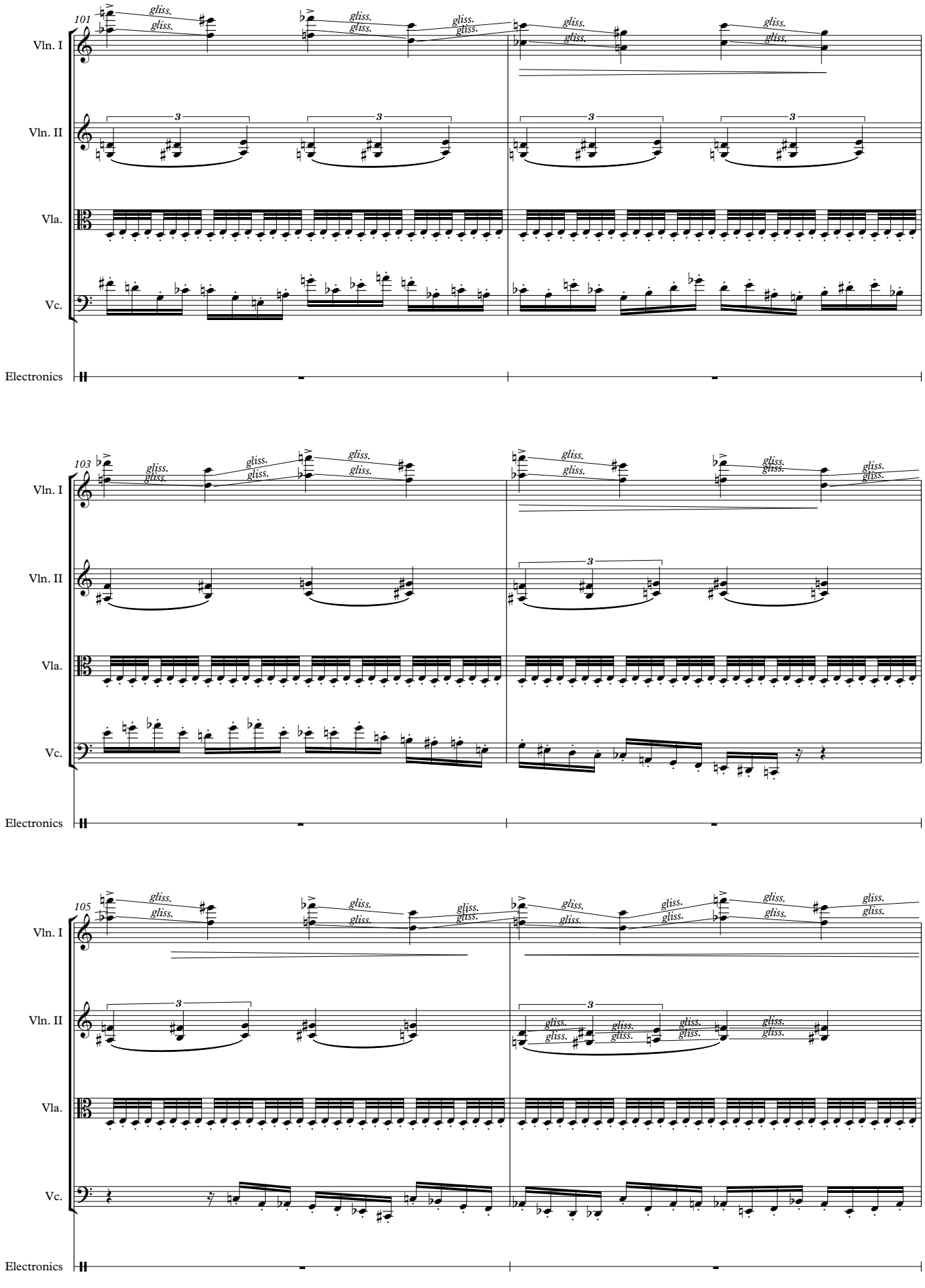
ca. 6 minutes

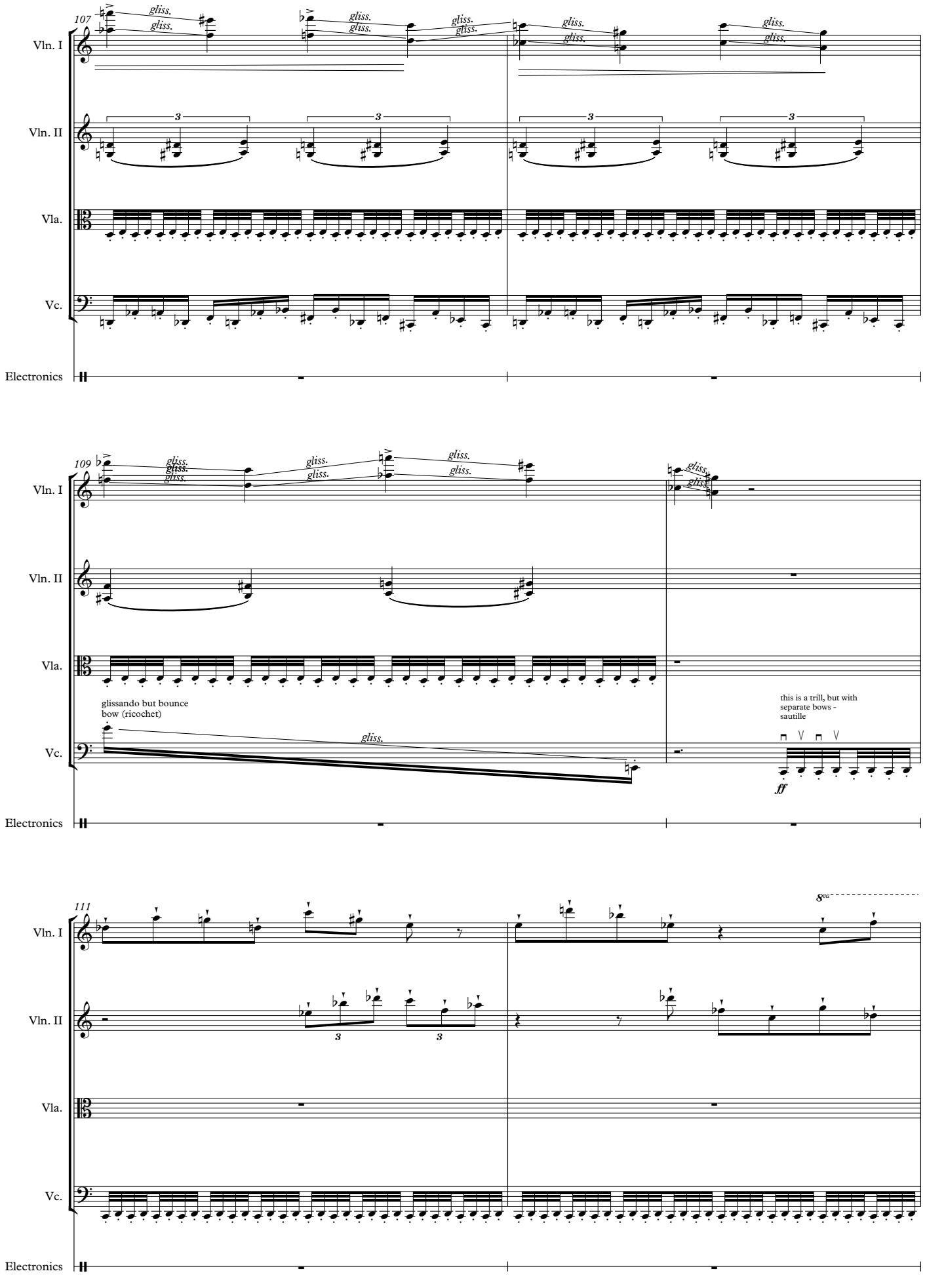


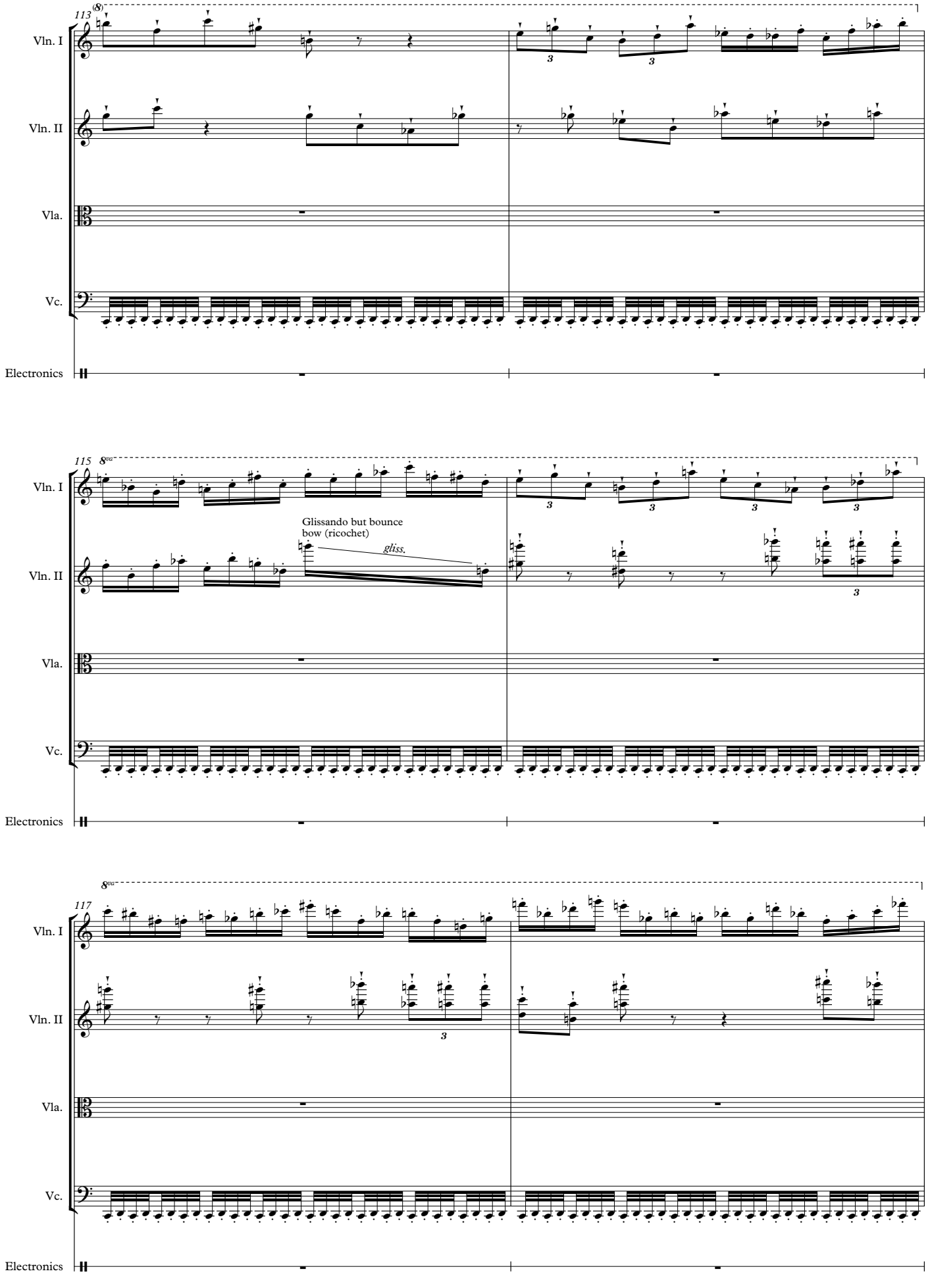


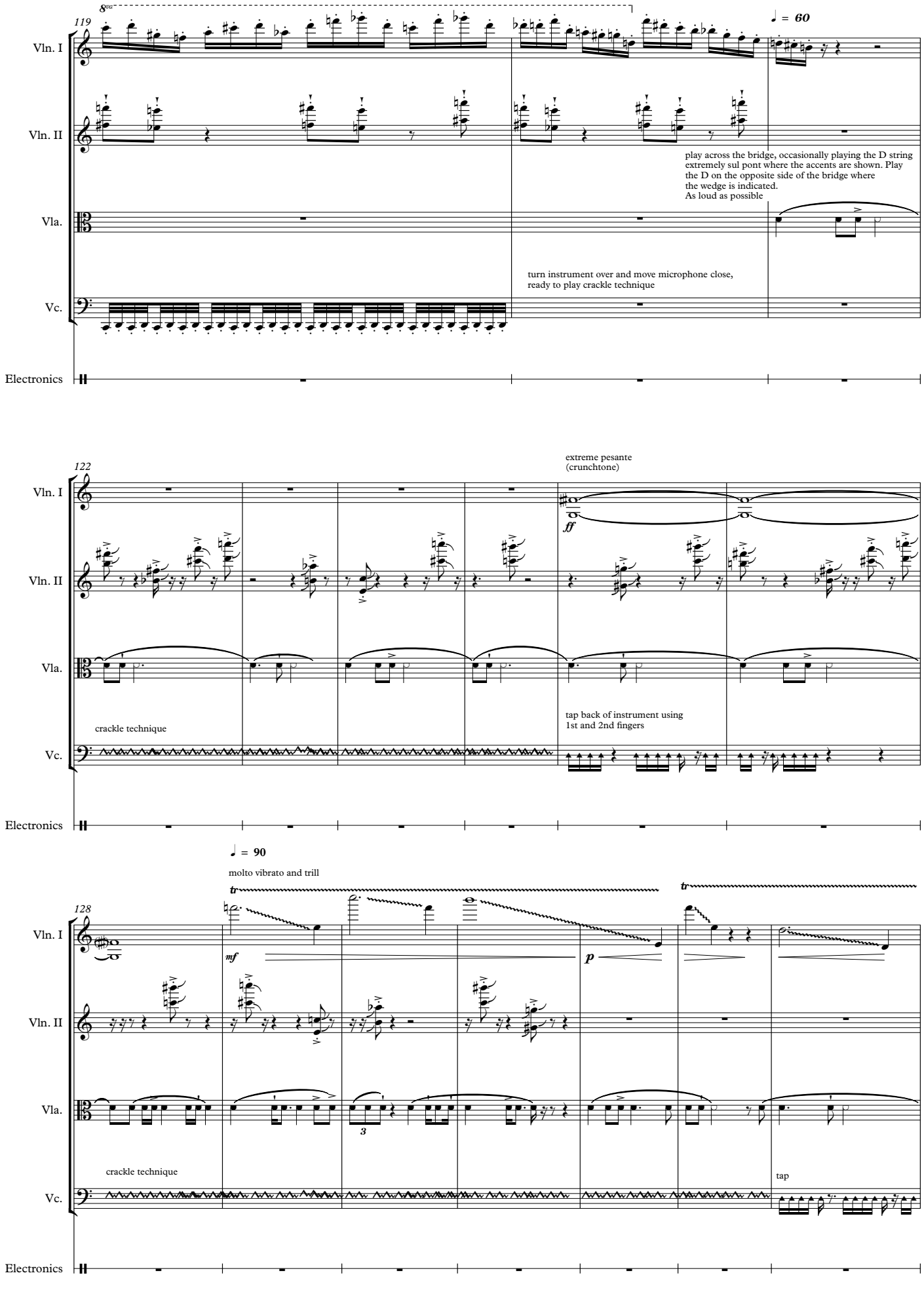

(1/4 flat)
89
Vln. I
heel
Vln. II
ff
Vla.
Pesante, crunch tone, heel.
Small gliss at the end of the note, in the direction symbol shows
Vc.
ff
Electronics
(3/4 flat)
91
Vln. I
Vln. II
Vla.
Vc.
Electronics
93
Vln. I
Vln. II
Vla.
Vc.
Electronics

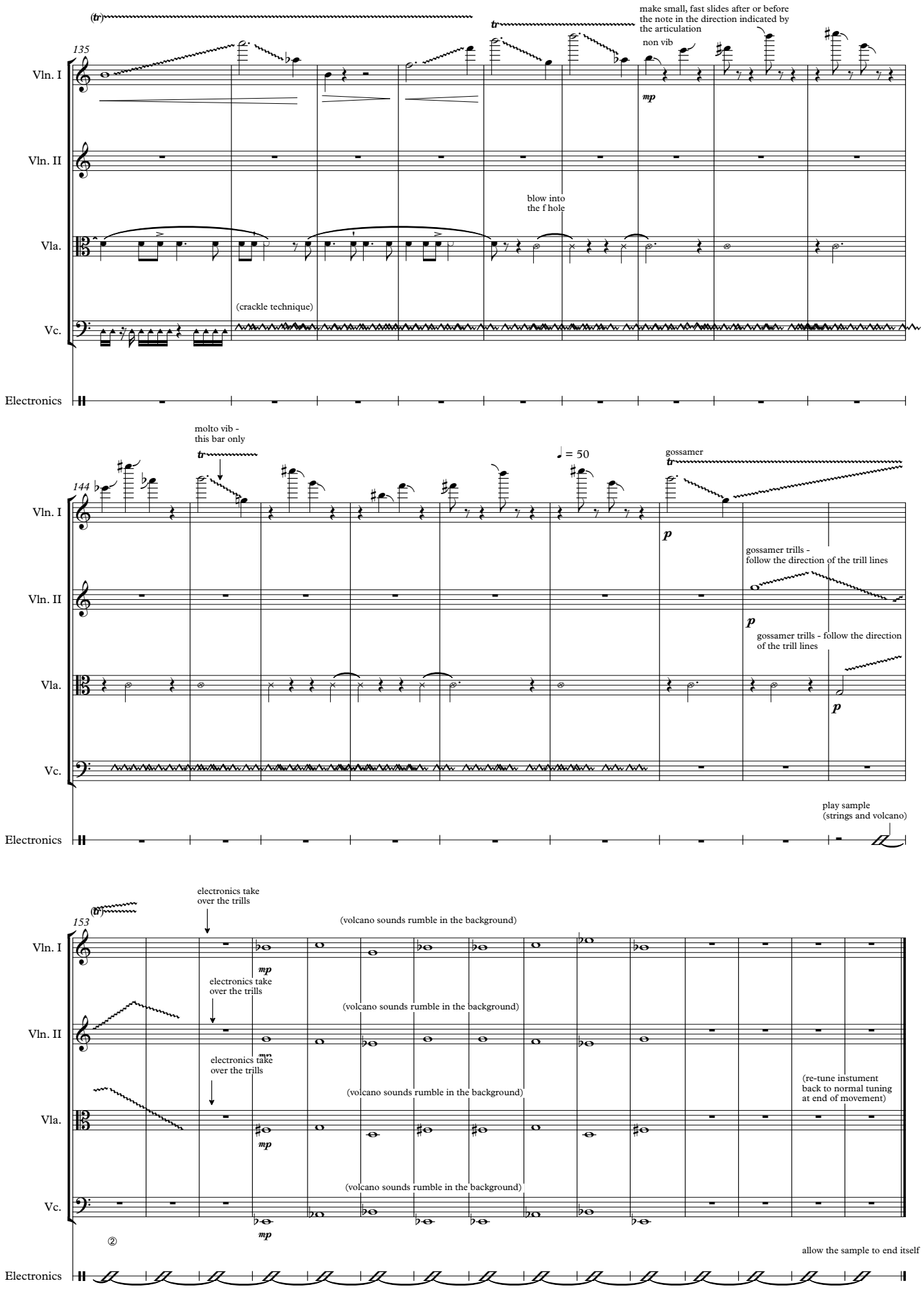

95
Vln. I
Vln. II
Vla.
Vc.
Electronics
97
Vln. I
Vln. II
Vla.
Vc.
Electronics
There needs to be a slight break at the end of each glissandi before the next note starts - so that the glissandi sound jerky. The effect is more important than the precise notes. See accompanying video.
99
♩ = 90
Vln. I
gliss.
mf
Vln. II
pesante - really press hard & gliss between notes
Vla.
Vc.
Electronics


101
Vln. I
Vln. II
Vla.
Vc.
Electronics
gliss.
3
103
105


107
Vln. I
Vln. II
Vla.
Vc.
Electronics
gliss.
3
109
glissando but bounce
bow (ricochet)
this is a trill, but with
separate bows -
sautille
ff
111
8va


113
Vln. I
Vln. II
Vla.
Vc.
Electronics
115
Glissando but bounce
bow (ricochet)
gliss.
117


119
8va
♩ = 60
Vln. I
Vln. II
play across the bridge, occasionally playing the D string extremely sul pont where the accents are shown. Play the D on the opposite side of the bridge where the wedge is indicated.
As loud as possible
Vla.
turn instrument over and move microphone close, ready to play crackle technique
Vc.
Electronics
122
extreme pesante (crunchtone)
ff
crackle technique
tap back of instrument using 1st and 2nd fingers
♩ = 90
molto vibrato and trill
tr
128
mf
p
3
tap

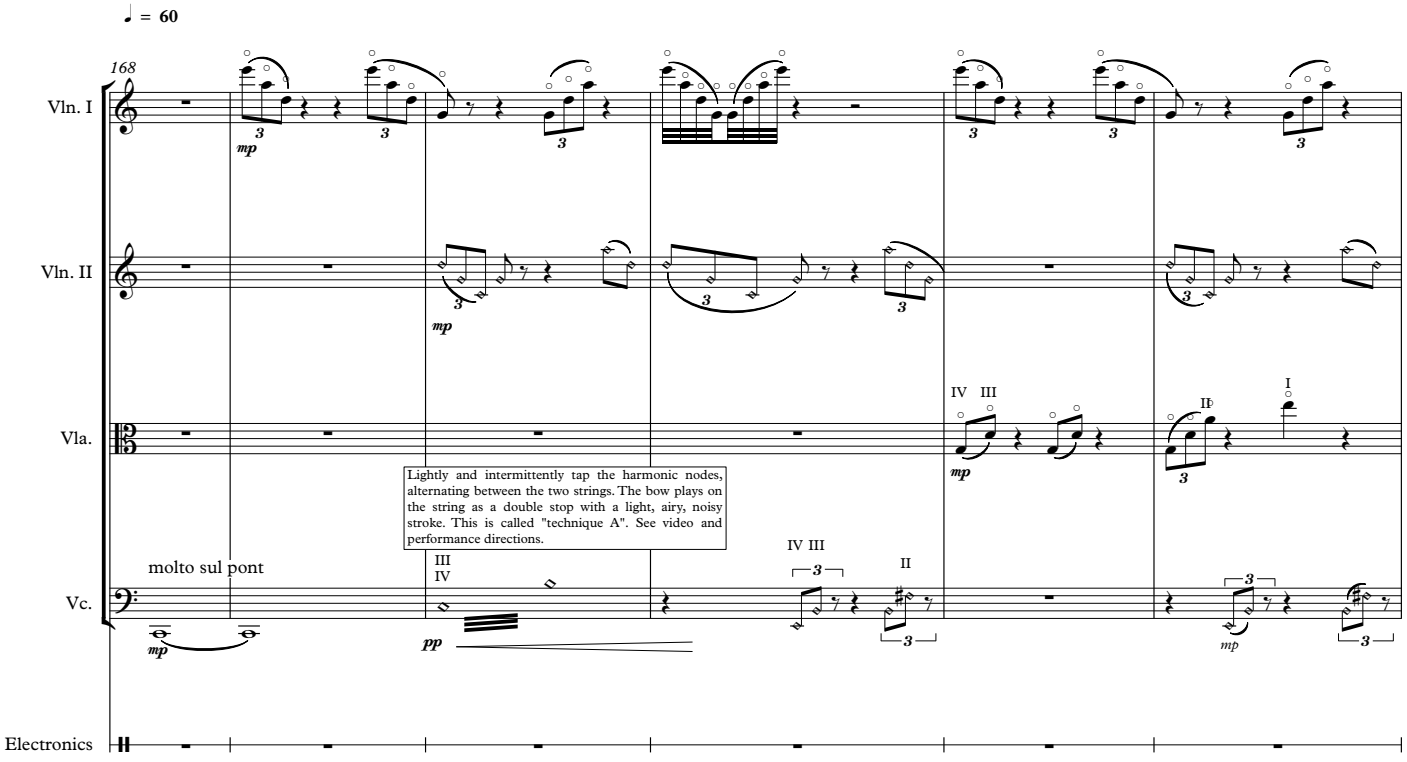

135
Vln. I
Vln. II
Vla.
Vc.
Electronics
make small, fast slides after or before the note in the direction indicated by the articulation
non vib
mp
blow into the f hole
(crackle technique)
144
molto vib - this bar only
♩ = 50
gossamer
p
gossamer trills - follow the direction of the trill lines
gossamer trills - follow the direction of the trill lines
play sample (strings and volcano)
153
electronics take over the trills
(volcano sounds rumble in the background)
(re-tune instument back to normal tuning at end of movement)
allow the sample to end itself

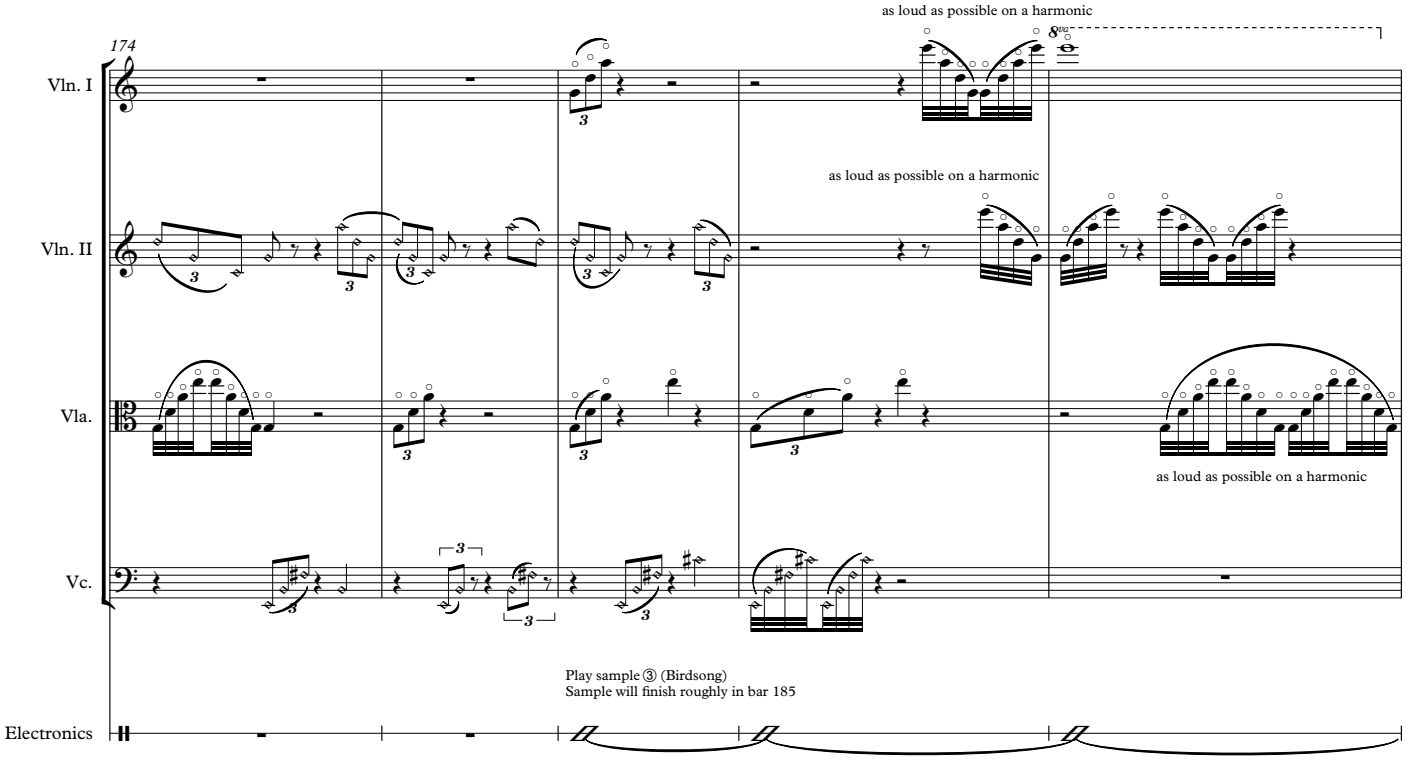
Terra (Earth)

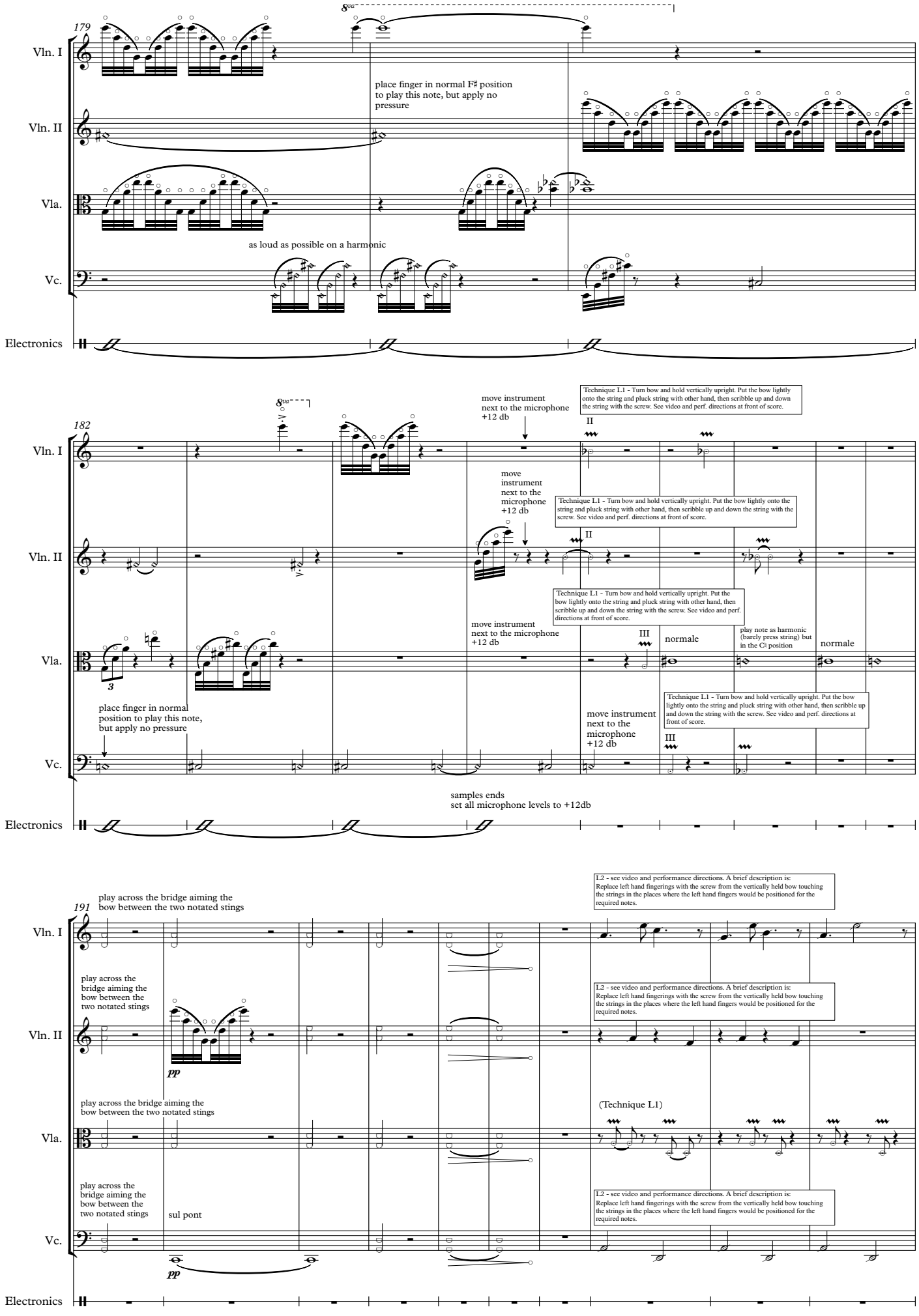
"The Forest"

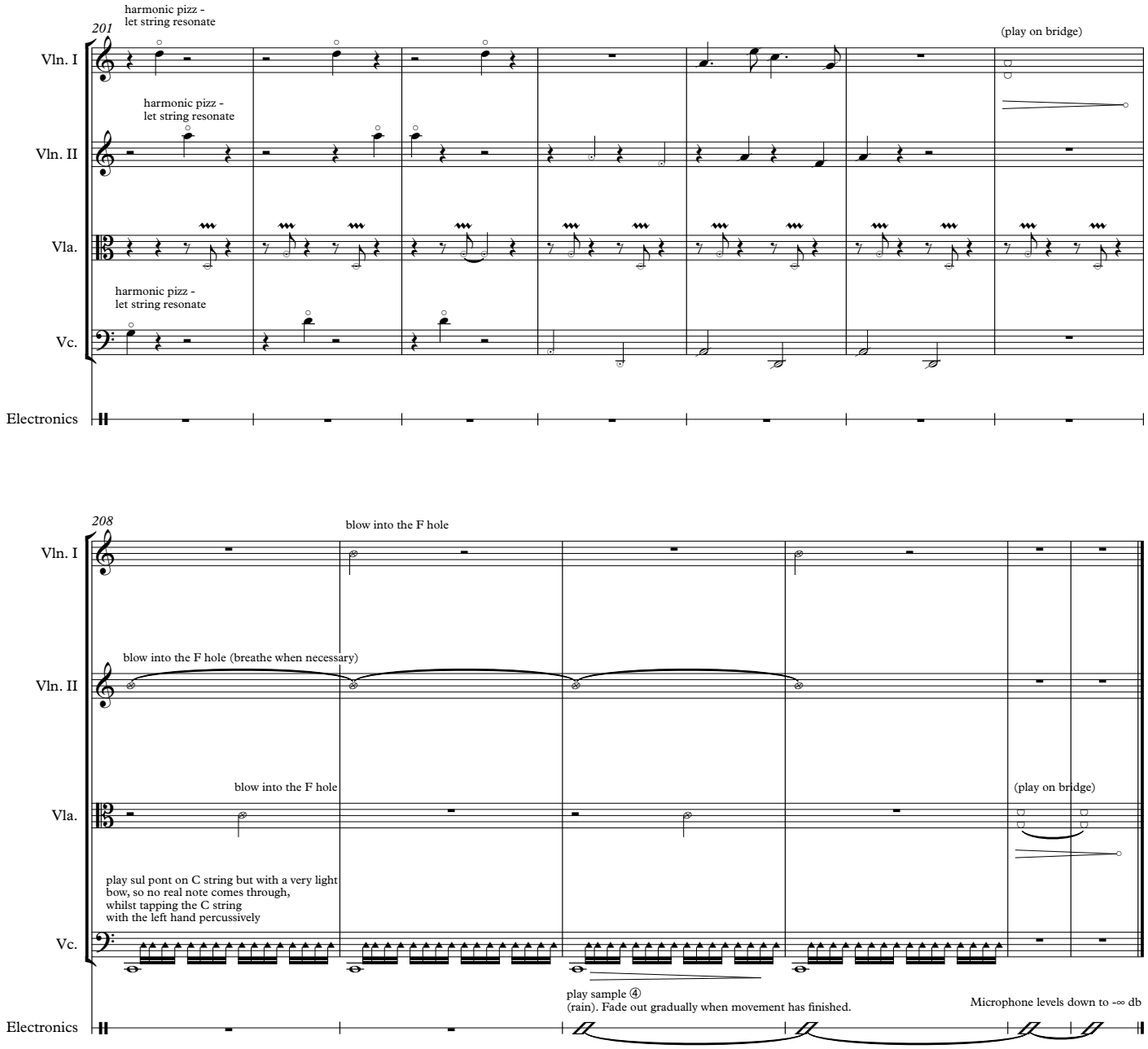
ca.4 minutes

Trees creaking and moaning
Birdsong and Insects calling from every direction
Water tapping against leaves
Wind rustling through branches






179
Vln. I
Vln. II
Vla.
Vc.
Electronics
8va
place finger in normal F♯ position to play this note, but apply no pressure
as loud as possible on a harmonic
182
move instrument next to the microphone +12 db
Technique L1 - Turn bow and hold vertically upright. Put the bow lightly onto the string and pluck string with other hand, then scribble up and down the string with the screw. See video and perf. directions at front of score.
II
III
normale
play note as harmonic (barely press string) but in the C5 position
place finger in normal position to play this note, but apply no pressure
samples ends
set all microphone levels to +12db
191
play across the bridge aiming the bow between the two notated stings
pp
sul pont
L2 - see video and performance directions. A brief description is: Replace left hand fingerings with the screw from the vertically held bow touching the strings in the places where the left hand fingers would be positioned for the required notes.
(Technique L1)


201
harmonic pizz -
let string resonate
(play on bridge)
Vln. I
harmonic pizz -
let string resonate
Vln. II
Vla.
harmonic pizz -
let string resonate
Vc.
Electronics
208
blow into the F hole
Vln. I
blow into the F hole (breathe when necessary)
Vln. II
blow into the F hole
(play on bridge)
Vla.
play sul pont on C string but with a very light
bow, so no real note comes through,
whilst tapping the C string
with the left hand percussively
Vc.
play sample ④
(rain). Fade out gradually when movement has finished.
Microphone levels down to -∞ db
Electronics

"The sight filled the northern sky; the immensity of it was scarcely conceivable. As if heaven itself, great curtains of delicate light hung and trembled. Pale green and rose-pink, and as transparent as the most fragile fabric, and at the bottom edge a profound fiery crimson like the fires of hell, they swung and shimmered loosely with more grace than the most skillful dancer."

Philip Pullman, *The Golden Compass*

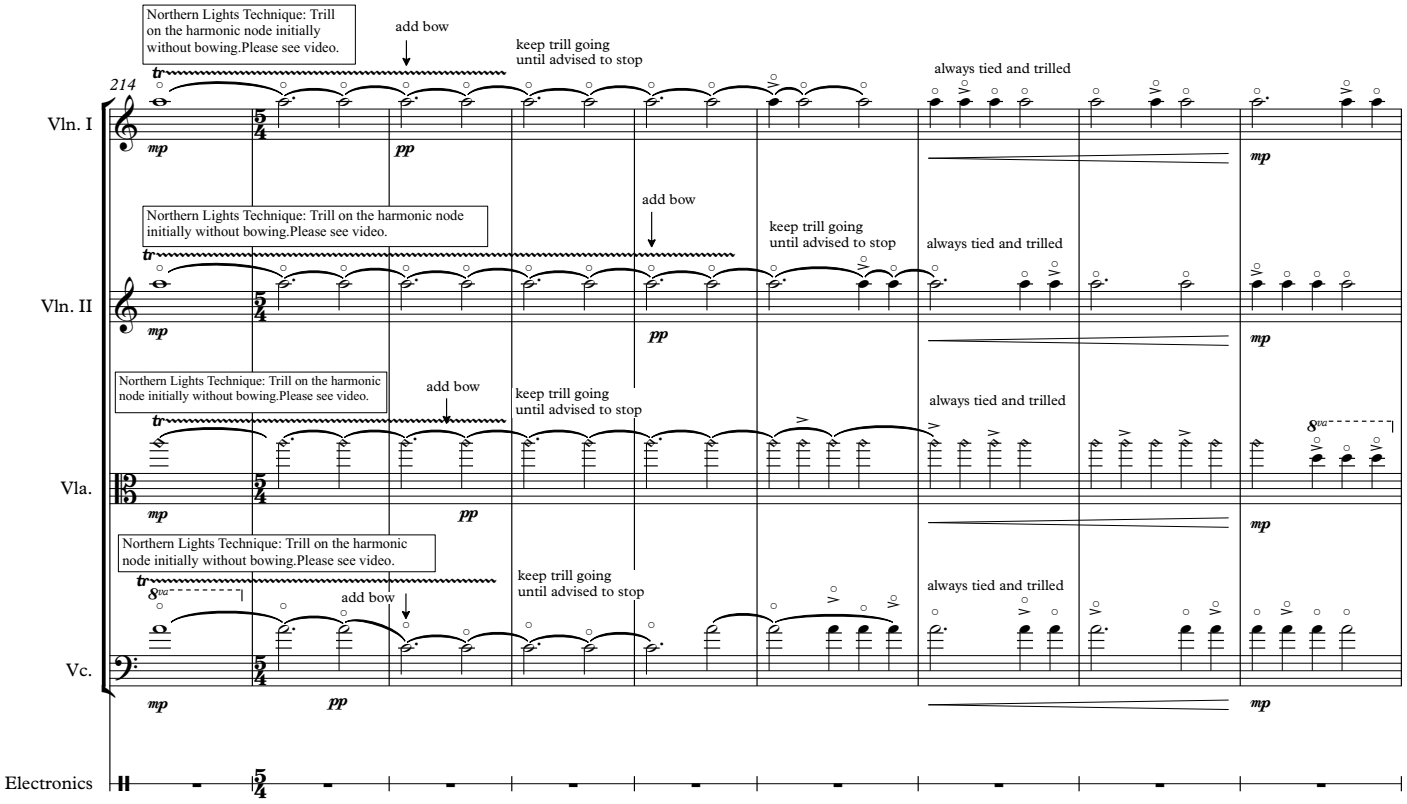
Painting by Katherine Betteridge

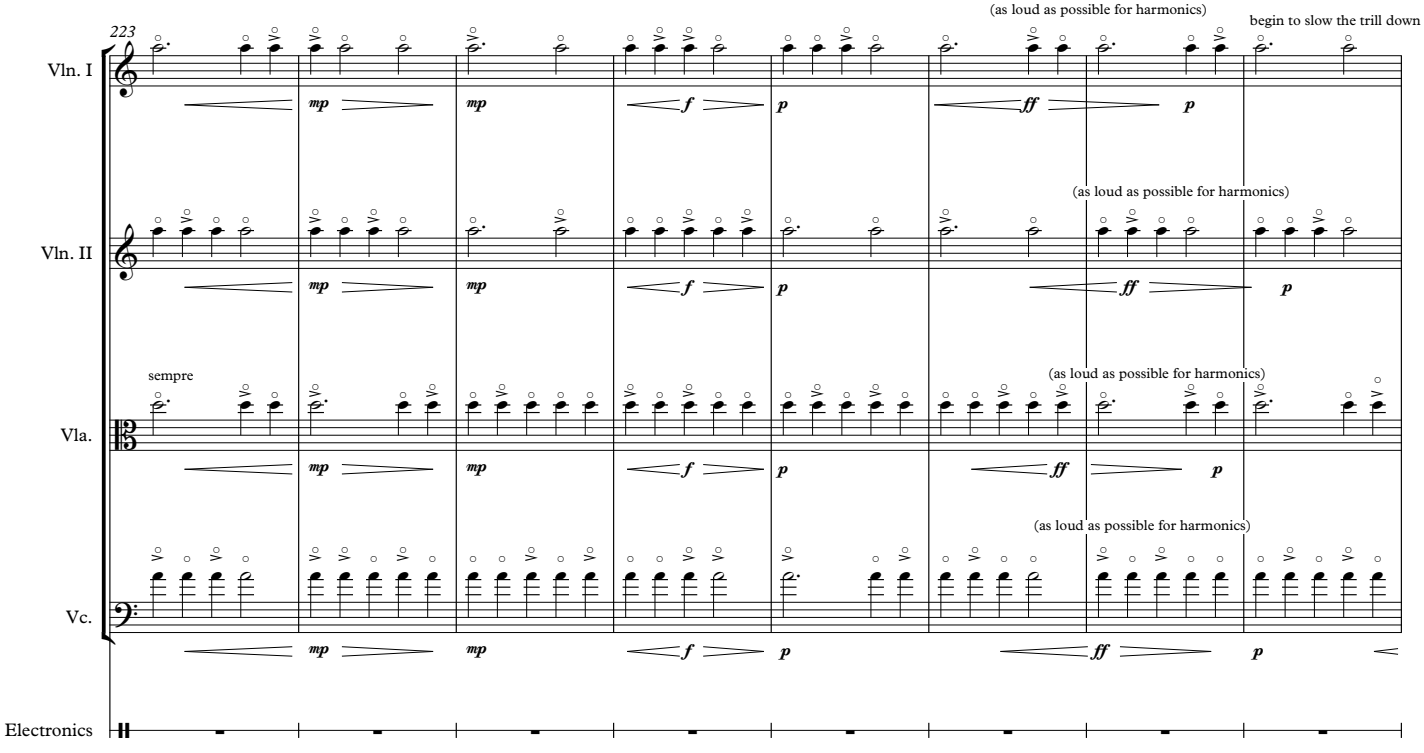
Ventus (Air)

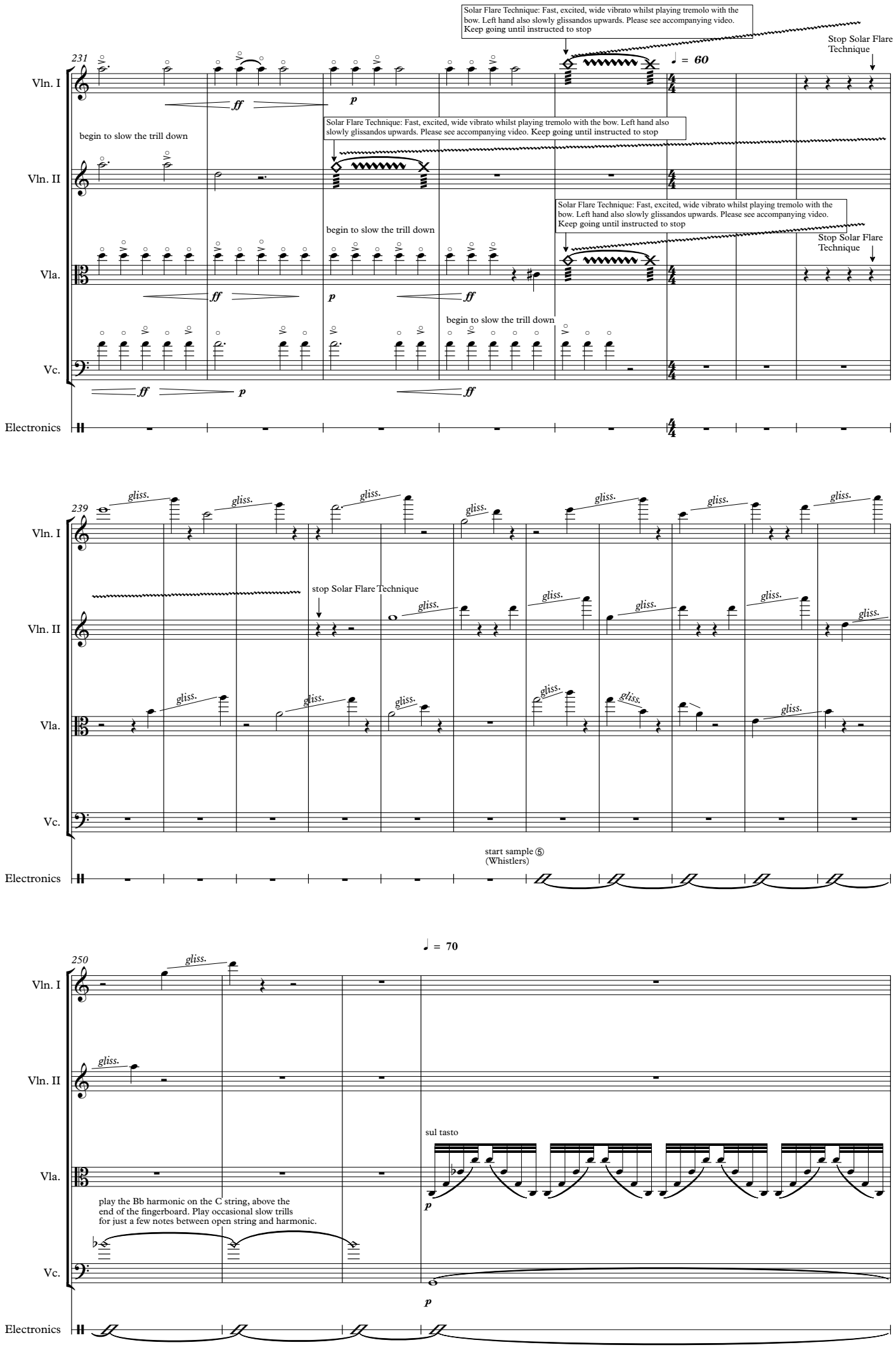
"Aurora Borealis"

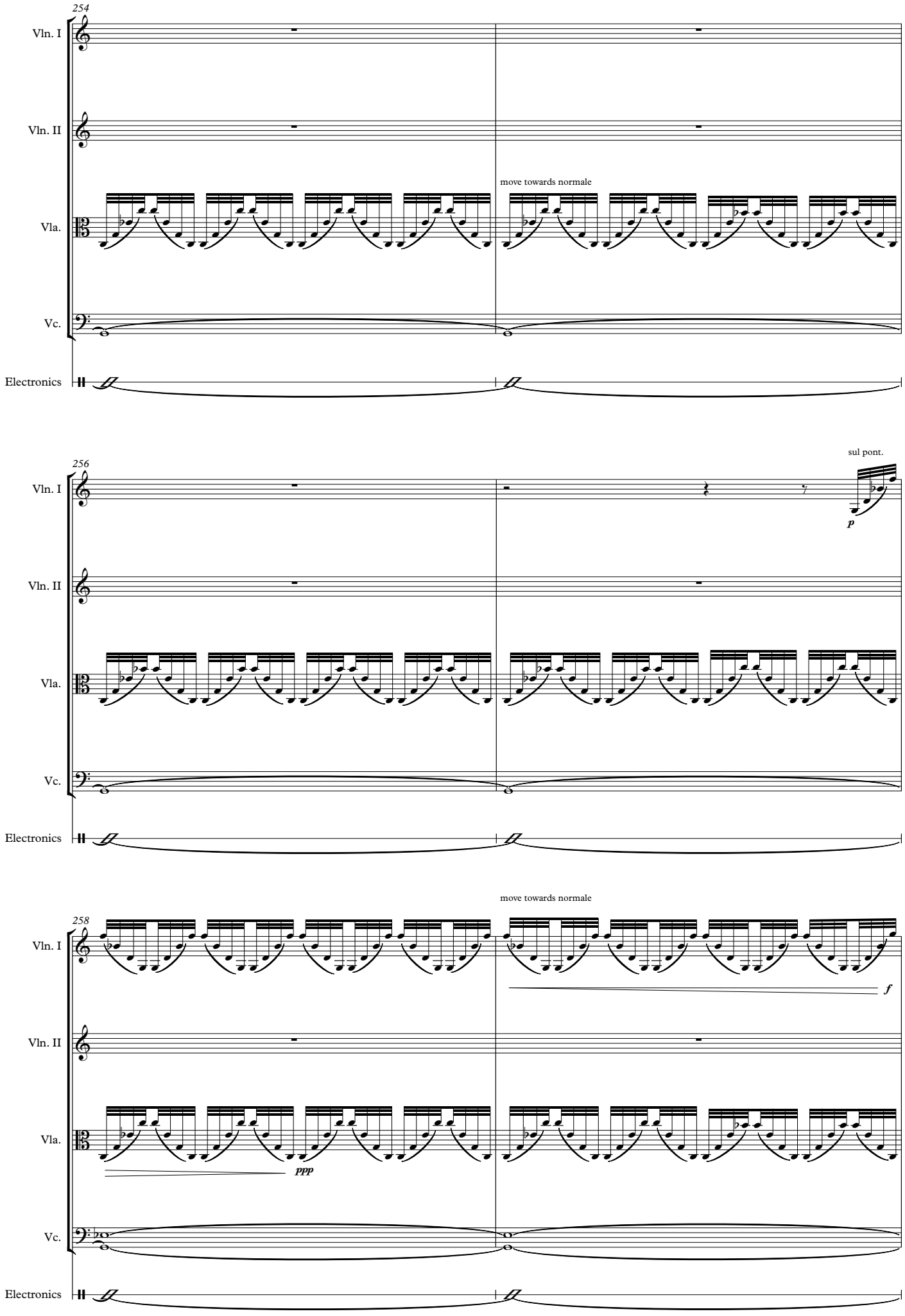
ca.10 minutes

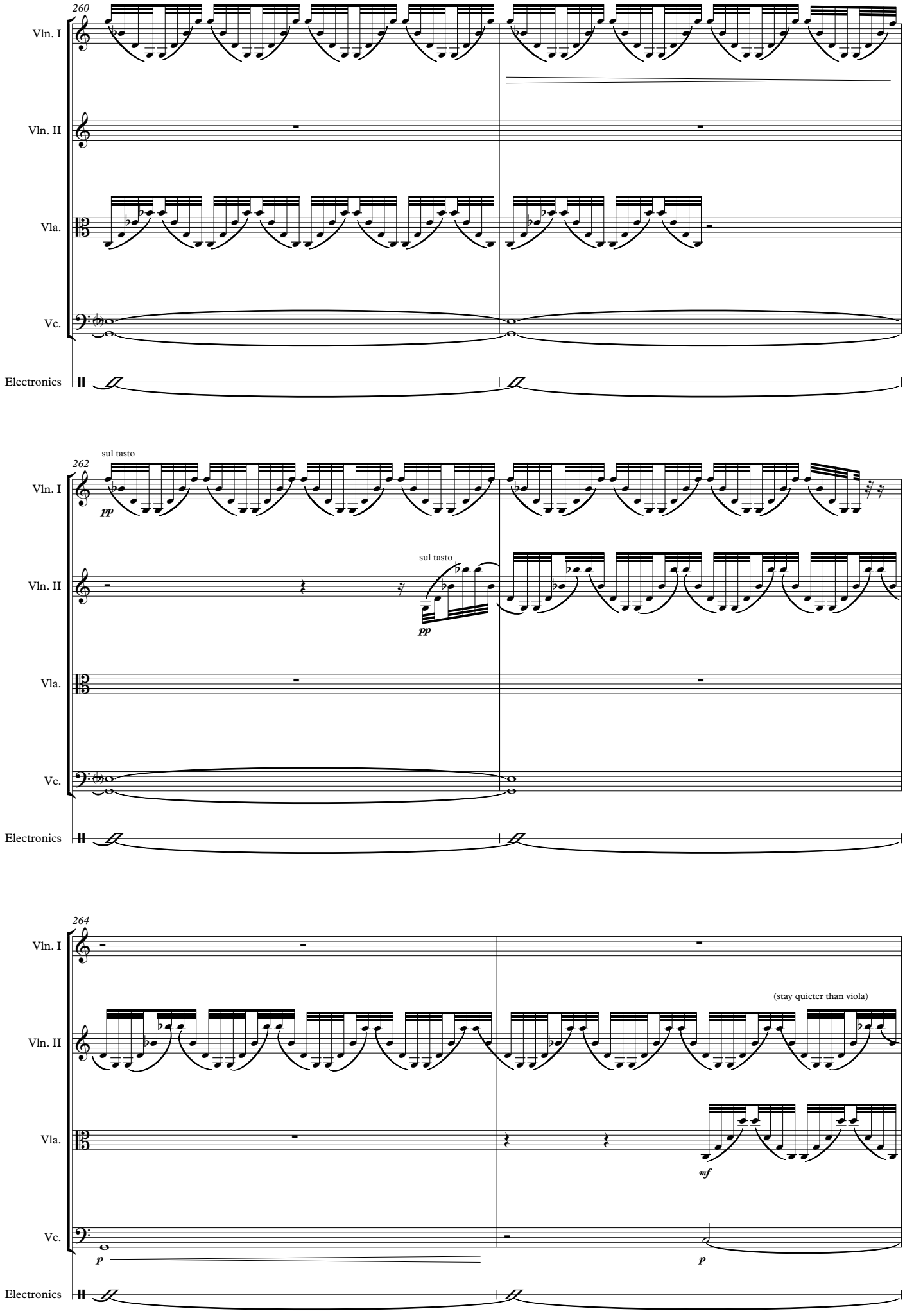
♩ = 90

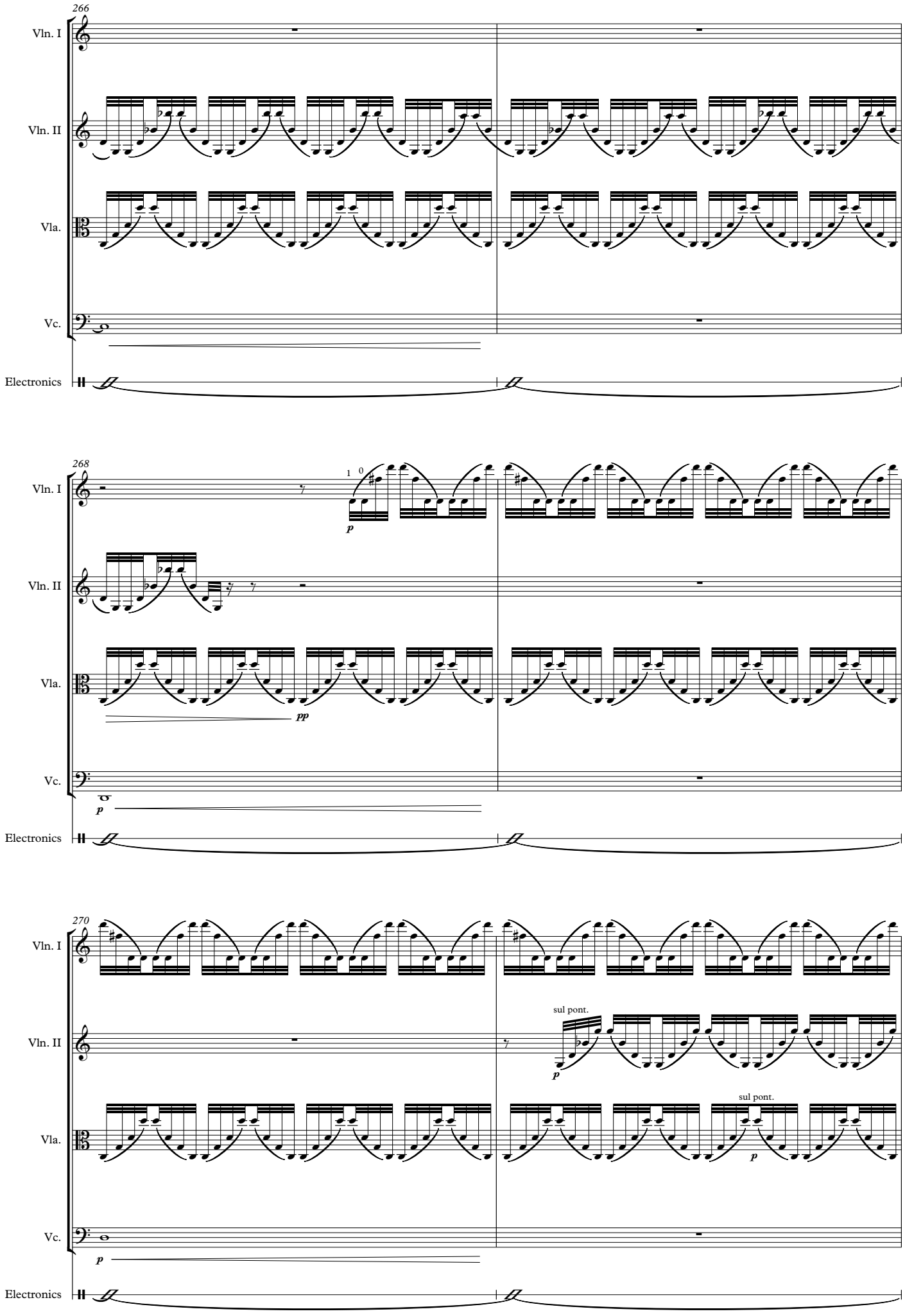


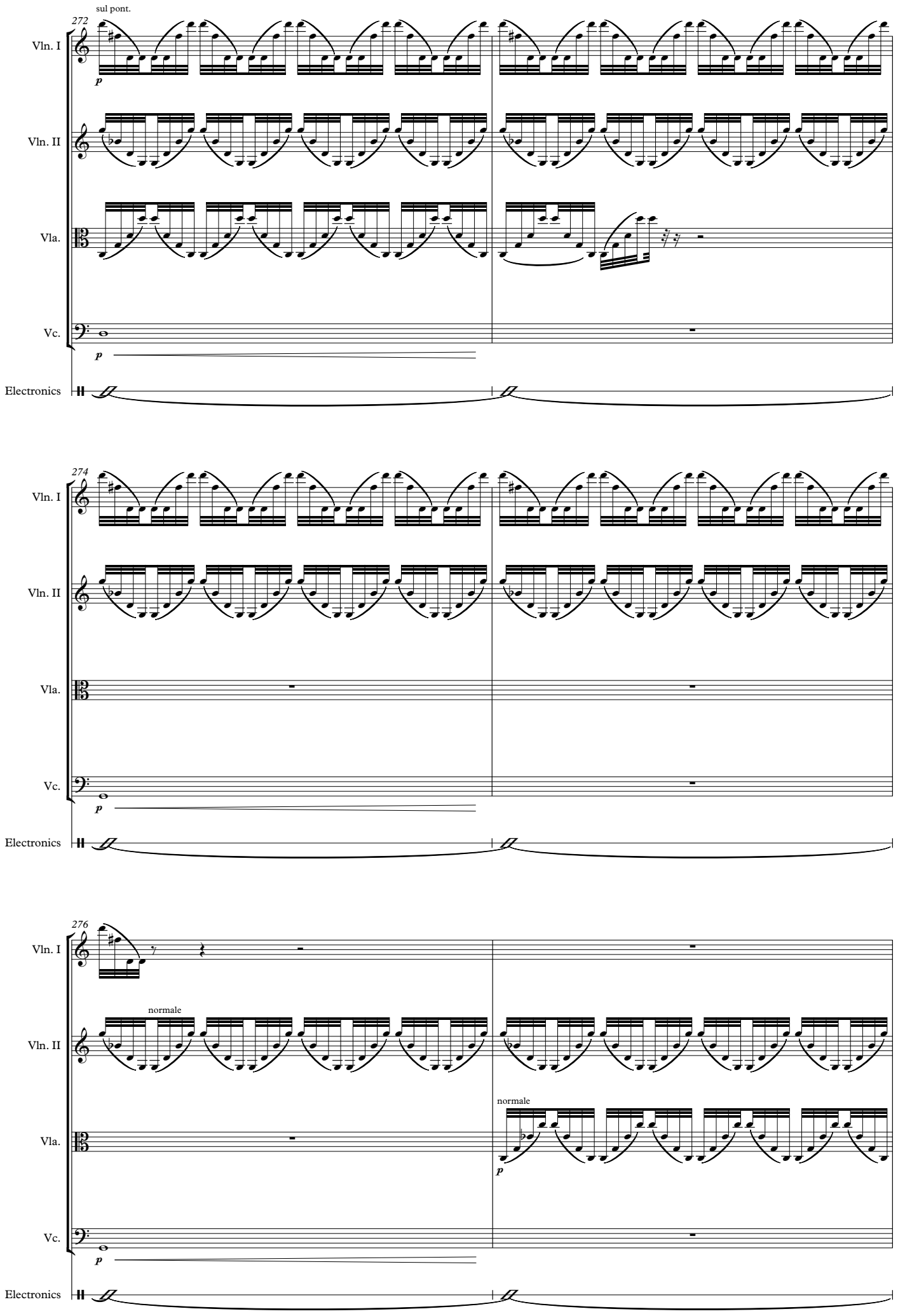


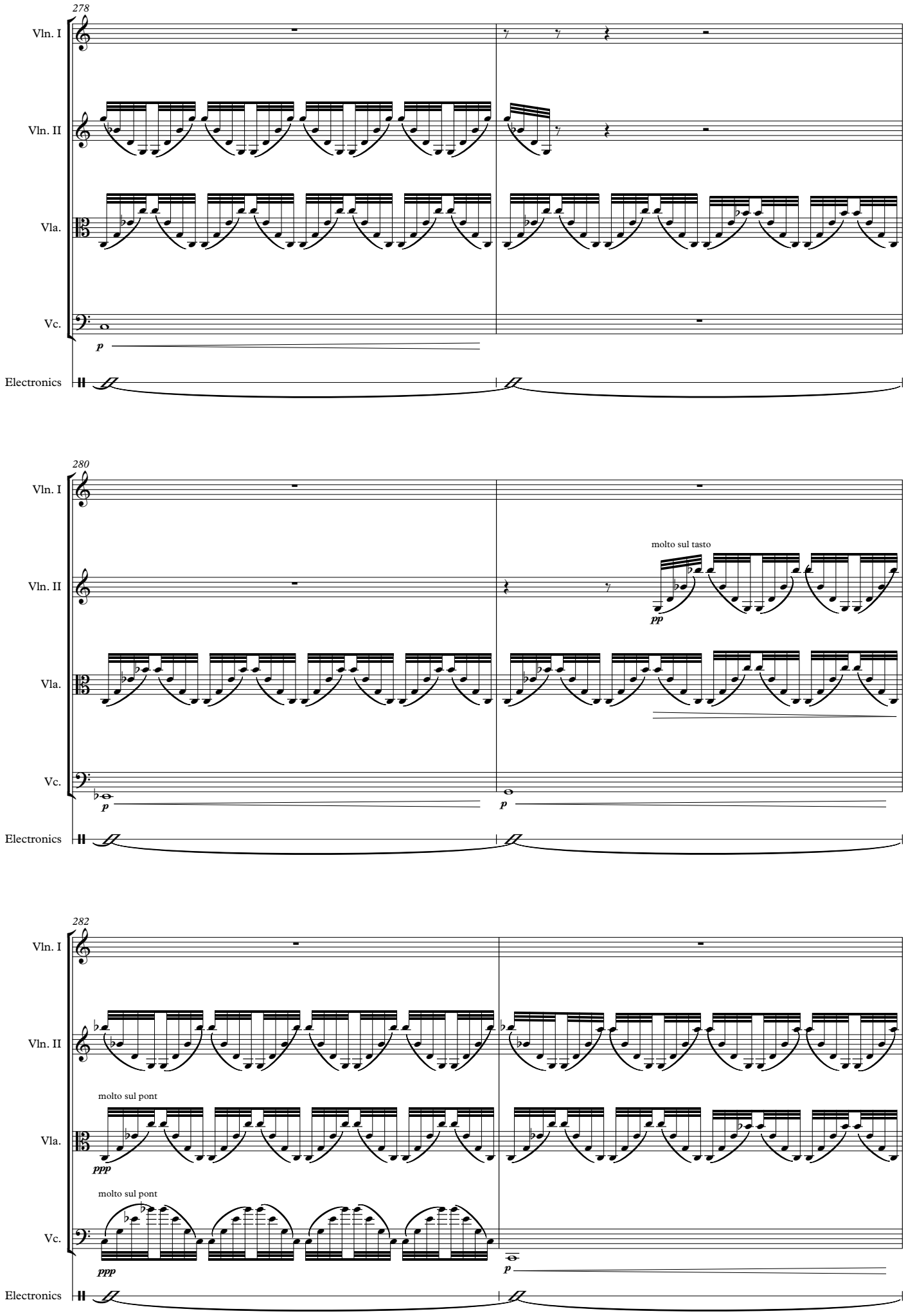

231
Vln. I
Vln. II
Vla.
Vc.
Electronics
Solar Flare Technique: Fast, excited, wide vibrato whilst playing tremolo with the bow. Left hand also slowly glissandos upwards. Please see accompanying video. Keep going until instructed to stop
Stop Solar Flare Technique
♩ = 60
begin to slow the trill down
ff
p
239
gliss.
stop Solar Flare Technique
start sample ⑤
(Whistlers)
♩ = 70
250
sul tasto
play the Bb harmonic on the C string, above the end of the fingerboard. Play occasional slow trills for just a few notes between open string and harmonic.

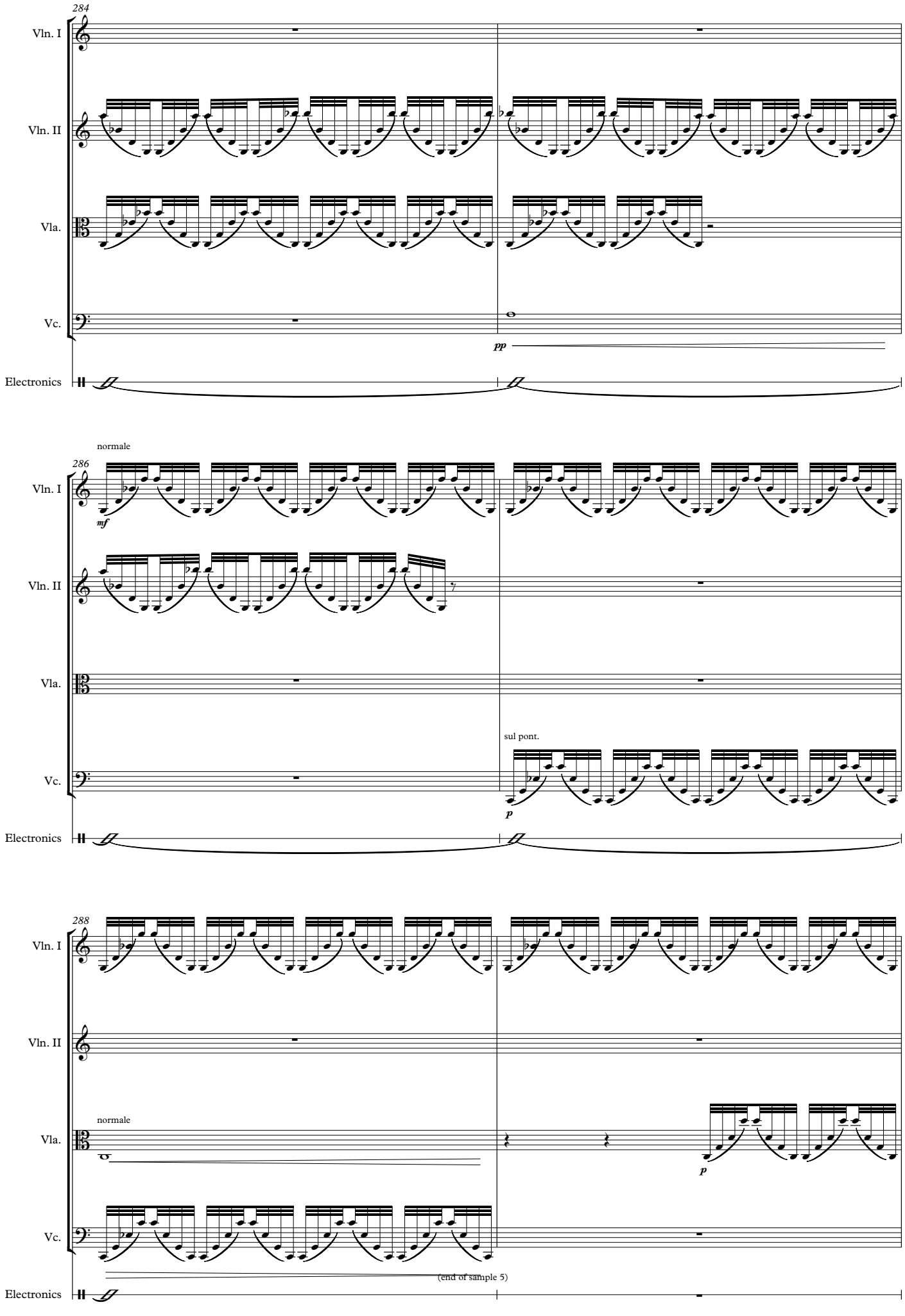

254
Vln. I
Vln. II
Vla.
Vc.
Electronics
move towards normale
256
sul pont.
p
258
ppp
f

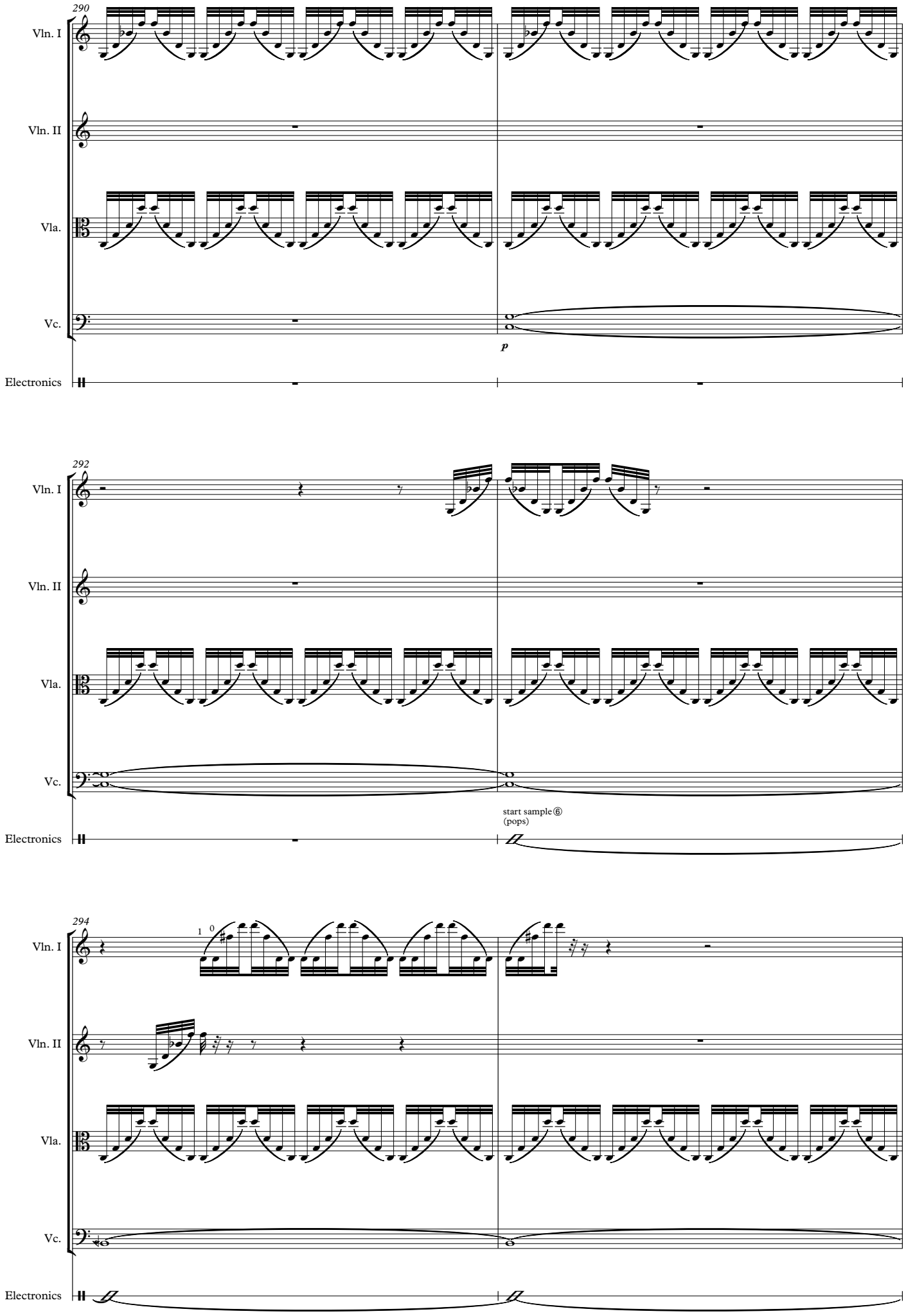

260
Vln. I
Vln. II
Vla.
Vc.
Electronics
sul tasto
262
pp
sul tasto
pp
264
(stay quieter than viola)
mf
p
p

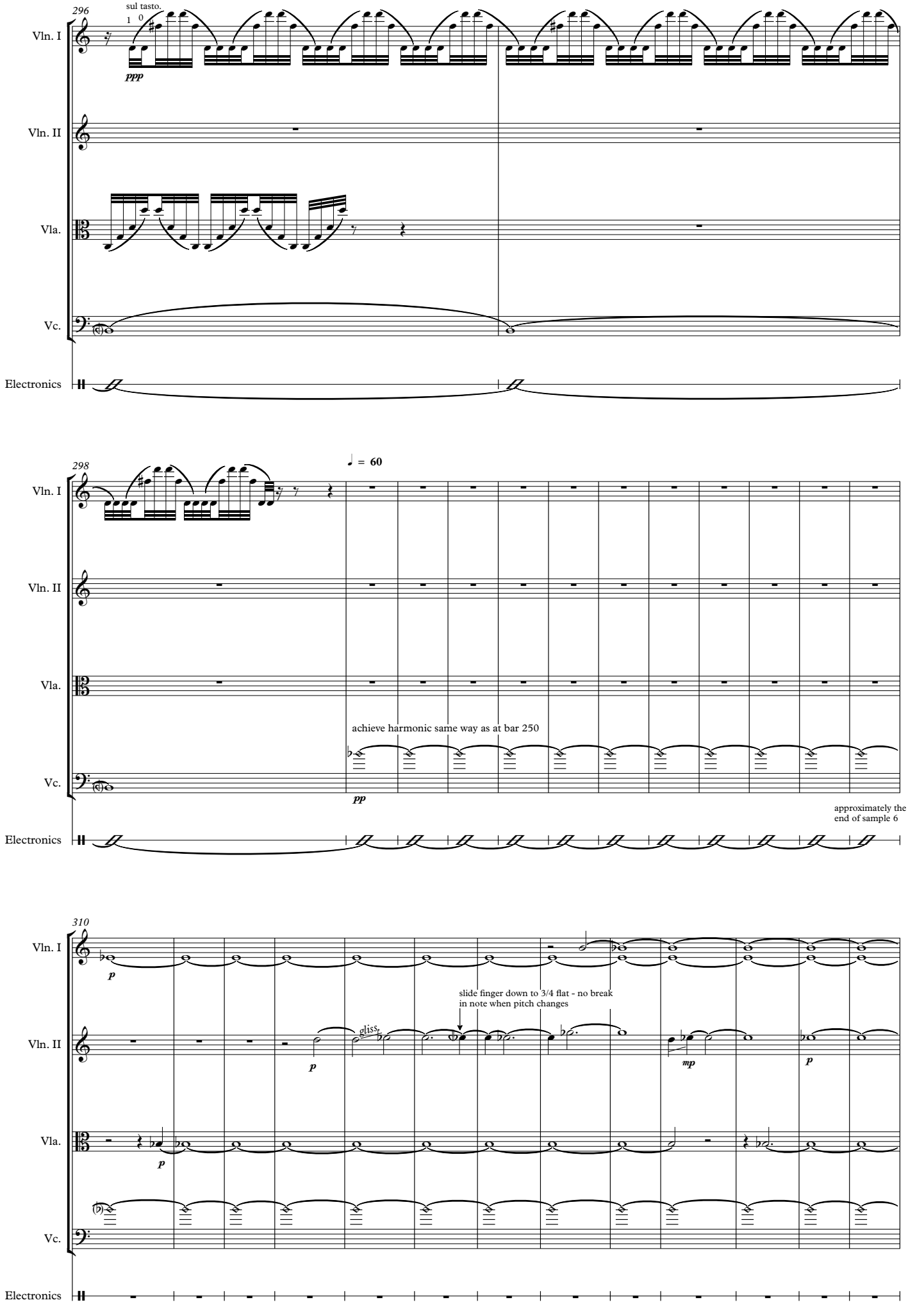

266
Vln. I
Vln. II
Vla.
Vc.
Electronics
268
1 0
p
pp
p
270
sul pont.
p
sul pont.
p
p

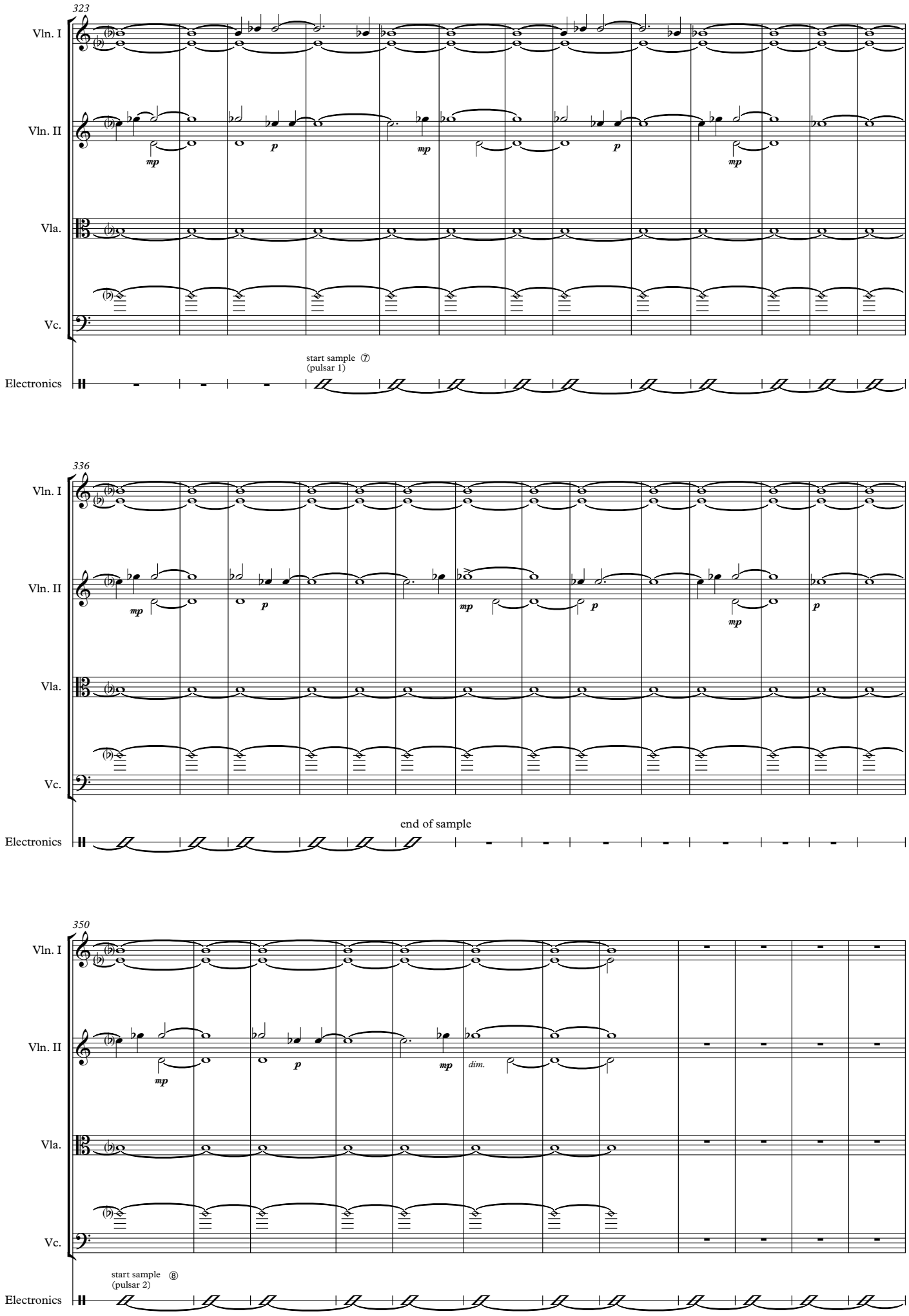

272
sul pont.
Vln. I
Vln. II
Vla.
Vc.
p
Electronics
274
Vln. I
Vln. II
Vla.
Vc.
p
Electronics
276
Vln. I
normale
Vln. II
normale
Vla.
p
Vc.
p
Electronics

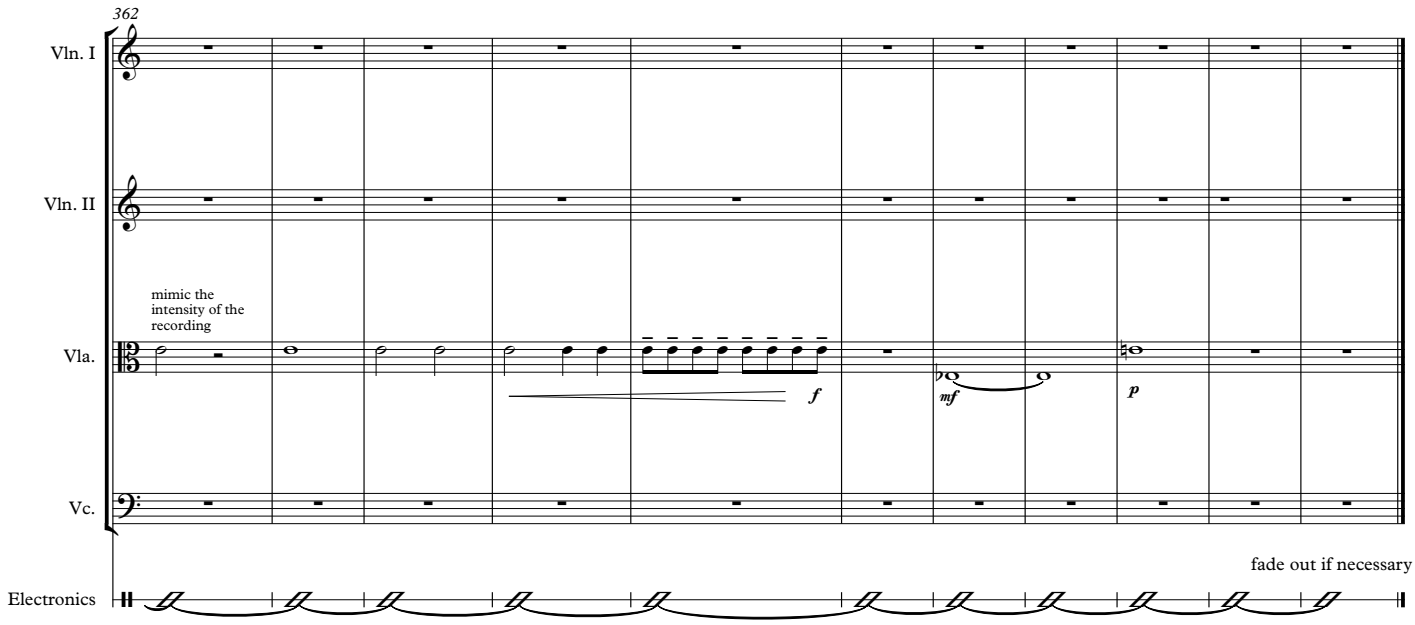

278
Vln. I
Vln. II
Vla.
Vc.
p
Electronics
280
molto sul tasto
pp
282
molto sul pont
ppp


284
Vln. I
Vln. II
Vla.
Vc.
pp
Electronics
normale
286
mf
sul pont.
p
288
normale
p
(end of sample 5)


290
Vln. I
Vln. II
Vla.
Vc.
p
Electronics
292
Vln. I
Vln. II
Vla.
Vc.
start sample⑥
(pops)
Electronics
294
1 0
Vln. I
Vln. II
Vla.
Vc.
Electronics


296
sul tasto.
1 0
ppp
Vln. I
Vln. II
Vla.
Vc.
Electronics
298
♩ = 60
achieve harmonic same way as at bar 250
pp
approximately the
end of sample 6
310
p
slide finger down to 3/4 flat - no break
in note when pitch changes
gliss.
mp


323
Vln. I
Vln. II
Vla.
Vc.
Electronics
mp
p
mp
p
mp
start sample ⑦
(pulsar 1)
336
Vln. I
Vln. II
Vla.
Vc.
Electronics
mp
p
mp
p
mp
p
end of sample
350
Vln. I
Vln. II
Vla.
Vc.
Electronics
mp
p
mp
dim.
start sample ⑧
(pulsar 2)


362
Vln. I
Vln. II
mimic the intensity of the recording
Vla.
Vc.
f
mf
p
fade out if necessary
Electronics

5. *Marie Laveau* (2017)

26 minutes long

Movements: Humidity
Ritual
The Bayou
Tempesta

5.1: Humidity

This movement attempts to convey the dense, humming humidity in Louisiana in summer. There is a dark menacing undertone that appears part way through played by the violas and the accordion sample. For me there is always a darkness lurking just beneath the surface. The percussive sound is the chain gang hammer sample and the female vocals that start at mm. 30 is 'Marie's theme'. This theme appears repeatedly throughout the whole composition. I wanted to include the sound of the accordion in the composition as it plays such a major role within Cajun music, but I could not find any other places beyond this movement where it seemed to fit, so I decided to include a short sample rather than have a musician play live for only a few bars in the first movement and then at no other point in the piece.

5.2: Ritual

The aspect of ceremony is very pronounced in this movement and takes the form of chanting, howling (suggesting altered states of reality and ecstasy), drumming, the pouring of water, and crackling fire sounds.

The movement starts with the ritualistic pouring of water, rattle snake samples, and voices emulating the water and snake sounds. The acoustic and electronic sounds overlap throughout, representing two things simultaneously, such as the snake and water sounds. These mixed sounds are emitted from both electronics and live vocals, blurring boundaries between the original sources of sounds and the way they are expressed. Another example are the shakers mm. 62 and 65. These are representative of the rattle snake's tail, but also the shaker itself is an instrument which might be used in a ritual.

The words spoken are passages from the Lord's Prayer, spoken in French Louisiana Creole alongside the names of Voodoo gods and goddesses. I have combined these as Catholicism and Voodoo have become closely intertwined in many places, and especially in Louisiana. The voices are often doubled by the strings and later doubled by the bongos. The manic vocal sounds are intended to represent altered or ecstatic states of consciousness and in the background are animal and bird sounds.

When I was walking near a waterfall in North Wales during strong winds and rain, I passed underneath the wires running between two pylons and was suddenly able to hear a multitude of multi-tonal microtonal notes. I loved this effect and have tried to recreate it throughout the piece with voices or strings. Mm. 122 is an example of this in the vocal parts. This is a theme which again suggests something hidden beneath the surface. I feel that it represents something unnerving and darkly magical, like the voice of the spirit of the land, reminding us of its continual living presence, watching us and remembering. This musical theme is developed until the end of the movement. "Crackle technique" was used initially in an attempt to emulate the sounds of a fire. But the sound also suggests to me of reality breaking or splitting apart, and of something taking place behind the scenes beyond our control in an alternative reality but one that nevertheless affects this reality. Again the chain gang hammers permeate the music, as if the land remembers the dark history of slavery in the area and is telling us not to forget.

5.3: The Bayou

I have tried to evoke the atmosphere of a swamp by recreating animal sounds, between mm. 203 – 230, with strings imitating frogs, insects and birds, all occupying slightly different registers (as they do in reality). It is at mm. 242 that the first proper encounter with an alligator takes place, with prehistoric sounding snarls, grunts and growls. The recording is to be diffused around the speakers to give the impression of the creature being actually inside the room.

I have made use of mobiles in this movement to try to prevent the players from falling into patterns and rhythms with each other, and for instead each instrument to sing its own autonomous insect-like, frog-like or bird-like song. This autonomy is aided by

the use of the max patch called "swamp"[7] which electronically randomizes the sounds created by second cello and double bass, and will help eliminate the natural habit of musically trained players falling into synch with each other. The fact that cello and bass are electronically forced to play against one another should help the other players also stay out of synch. Each player is instructed, moreover, to use a metronome application on their phone (either on a silent setting or used with earphones) as each player's mobile (musical boxed mobile) is set to completely unrelated speeds to anyone else's. The clashing string chords that keep appearing at intervals from mm. 244 represent swarms of insects.

As the alligator and animal sounds fade away at 263, Marie's warm theme reappears, followed by the gradual emergence of the chain gang sounds, this time revealing the sound of the full song. It was not possible to include actual slave music as the first ethno-musicological recordings were made after slavery was abolished. My aim was to take the listener on a boat down the river, encountering all the animals and reptiles on the way and passing slaves working in the fields. The song fades out and begins to distort as if the boat is moving away from the singers and as if the singers are also moving into the past, but the hammers stay loud and get louder, as if to suggest that history may well be in the past but the echoes of it are still imprinted on the present. The microtonal chords reappear, also reminding us that the land retains elements of the past.

5.4: Tempesta

This movement aims to create an atmosphere of spirits, magic, and dark mystical forces at the onset of a storm, as if the storm itself has been summoned by the women in the choir and is thundering in reply to them. There are women's voices, whisperings and hummings in and amongst the sounds of wind and rain, both in the electronics and also scored for the live performers. It was my intention to make it difficult for the audience to discern whether what they hear are voices, strings, or wind and whether the sounds are live or coming from the electronics. I intended everything to be intertwined and indistinguishable in order to evoke a feeling of spirits, humans and nature closely intertwined, if not, inseparably linked. Within mm.

[7] Created kindly by Chiron Farrimond, a fellow music student in the department at the time.

334 (around the 20 minute mark in the recording) I wanted to give the impression of spirits "whisping" across the room. In the recording at this point are whispers and words from the Lord's Prayer spoken backwards (possibly an influence from having listened to extremely heavy metal as a teenager and discovering satanic messages hidden in songs, only audible when the record was played backwards!).

In this movement, sound is used *literally* at points by both singers and strings. The singers make breathing sounds as the wind starts to pick up at the beginning of the storm (mm. 314), and the string players use their breath on the strings of their instruments in mm. 312, creating a shimmering effect. All of these are literal human versions of the wind. Towards the end, (from 383 onwards) authentic animal recordings can be heard. These sounds come through different speakers, intending to give the impression of the audience being surrounded by creatures. And at the very end of the movement, from mm. 388 onwards, the strings emulate rain, with the "raindrop technique" section, although this may be both suggestive and literal at one and the same time. "Raindrop technique" is a technique I developed which involves creating chords with the left hand whilst pressing the fingertips of the right hand down onto the strings so that when the finger is removed the string gently rebounds with a very gentle twang. With many string instruments doing this simultaneously, whilst shifting through chord progressions at slightly different intervals, I intended to evoke the atmosphere of rain falling with varying degrees of intensity. Over the top of this passage, recordings of real frogs, reptiles, birds and insects are played through the electronics, as are the sounds of a real storm. The harmonics played on first violin at the end are imitations of the call of creatures. At the very end of the piece, the strings are intended to create the sound or even to evoke the *feel* of rain, as a rainstorm finishes, with the droplets falling at a slower rate until they eventually stop.

The sounds used within the electronics of the piece have come from a variety of sources. The storm, bird, insect, frog, snake and some of the alligator sounds either came from loops in Garageband or from the freesound websites in the footnote[8].

[8] *Freesound*. n.d. [Online]. https://freesound.org/ Accessed 2015
freetousesounds. 2019. [Online]. https://freetousesounds.com Accessed 2015
soundideas. 2019. [Online]. https://www.sound-ideas.com/Default.aspx Accessed 2015

Other alligator sounds came from a youtube channel[9]. The Chain gang song is called *Hammer Ring*. It took some time to find a copyright-free piece of chain gang music, but with the help of someone from the PRS I managed to find this song. The song a.k.a. the work, has no copyright, and the recording is out of copyright.

In the recording located in Folder 2, all parts are performed by and recorded in a studio by myself.

[9] https://www.youtube.com/watch?v=Jkh3sknNnkI&t=63s - (Creative Commons Attribution License – re-use allowed). Sound created by Aleksa Mrkela

Katherine Betteridge

Marie Lavaeu

For

Strings,
8-Part Female Voice Choir,
Percussion &
Electronics

Duration: ca. 26 Minutes

All instruments are notated at sounding pitch

Programme note

This piece was initially inspired by the discovery of the Creole voodoo priestess, Marie Laveau, who lived and practiced in and around New Orleans, Louisiana in the late 18th and early 19th Centuries. It is thought that she was a free black woman – unusual for a black woman at that time – and an extremely powerful healer. It is said that thousands of people would come to watch her perform legendary magical ceremonies. In addition to my interest in Laveau herself, I am also intrigued by the area in which she lived particularly the swamps. Swamps seem to be incredibly magical and otherworldly places, teeming with animal and plant life, fascinating sounds and mystery. The frogs, birds, insects and alligators fill the air with sound 24 hours a day and I imagine the atmosphere to hum in a timeless reality during the humid summer months. I am also fascinated by the cultural diversity in New Orleans and the mixture of languages, religions and musics. It seems like a melting pot of humanity.

The composition itself includes recordings of the sounds of animals in the Louisiana swamps, such as the prehistoric rumbling growls of alligators, alongside the sounds of natural phenomena such as storms. There are some early chain gang recordings, intended to be as close a reminder as possible of the slavery from Laveau's period in history. The percussive sound of the chain gang hammers striking the ground occur throughout the entire composition.

This is a composition in four parts:

Part 1: Humidity
Instrumentation: Strings, 8-Part Female Voice Choir, Percussion & Electronics
Duration: ca. 4 minutes

Part 2: Ritual
Instrumentation: Strings, 8-Part Female Voice Choir, Percussion & Electronics
Duration: ca. 9 minutes

Part 3: The Bayou
Instrumentation: Strings, 8-Part Female Voice Choir, Percussion & Electronics
Duration: ca. 6 minutes

Part 4: Tempesta
Instrumentation: Strings, 8-Part Female Voice Choir, Percussion & Electronics
Duration: ca. 7.5 minutes

Performance Directions

Amplification and Electronics

Two engineers will be needed, one per set up. Both set ups are shown on the room layout on page 6. Each engineer requires their own laptop, audio interface and mixing desk in order to be able to have separate control of diffusion for the speaker requirements in the score.

Engineer 1 connects their interface to the speakers coloured in blue in the diagram. Letters are used to indicate specific speakers. Engineer 1 will
also need to be able to run Max MSP. Engineer 2 connects their interface to the red ones. Numbers are used here instead to differentiate the two set ups.

Each engineer has their own stave on the score. If no specific speakers are indicated, leave the diffusion settings to the same setting as the previous sample required. If the instructions are not in a coloured box, then there is nothing to do at that point – the instructions are there at that point purely to clarify what should be happening in the sample.

AS stands for All Speakers – meaning, to have the sample coming equally through all the speakers available to the individual engineer.
If AS is not written, there will be numbers or letters indicated (depending on whether it is engineer 1 or 2) in the coloured boxes on the score.
This refers to the speakers that the sound needs to be diffused to.

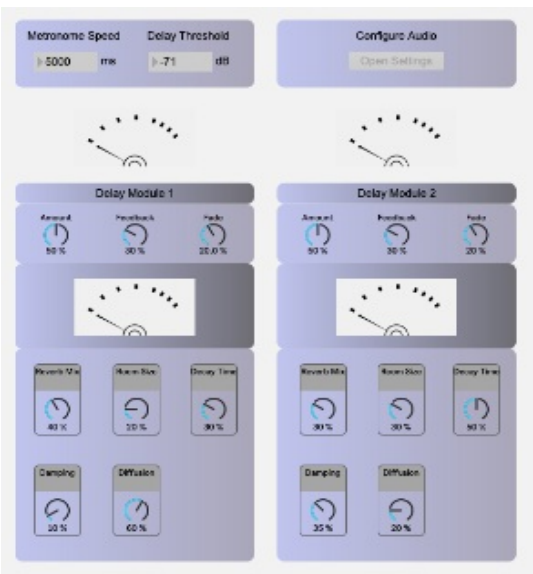
Strings need to be amplified with slight reverb. Two microphones above the strings will be enough.

Singers need to be amplified with slight reverb. Two microphones above the singers will be enough.

The Max MSP patch called Swamp used in part 3 (the Bayou) will need to be on Engineer 1's computer. Double Click on Marie Laveau - Swamp.maxpat once Max has been installed.

In Part 3, Vlc 2 and Db need to be rigged up to their own individual microphones (preferably contact mics) and connected to individual versions of Swamp.

Patch settings are shown in the diagram below:



Percussion

1 Timpanist - Timpani tuned to A

1 Percussionist:

Wind chimes
Broad Cymbal
Concert Bass Drum
Tam Tam

The large different percussion instruments will be placed in different parts of the room, each with their own light which will only come on when
the instrument is in use.
2 different sized Bongos

Also,
Shaker (give to 1st Violin)
Rain stick (give to 1st Alto)
Wooden block (give to 2nd Soprano)

Singers

Props

A table with a plain either black or white table cloth with three large glass jugs filled with water and three empty glass bowls, each being
big enough to hold all the volume of the water from one jug.

- The voices all need to be female, but there will need to be three singers with low enough voices to sing tenor.
- The singers will need to be prepared to move physically about throughout the performance.
- The singers will need to be comfortable acting and making unconventional sounds.
- Need to wear white clothing

Part 2.

2nd Soprano will need a wooden block
1st Alto will need a rain stick

Beginning: Sopranos 1, 2 and 3 slowly walk towards the table on which stand three jugs and bowls. Stand in this order left to right: Sop 3, Sop 2, Sop 1

Soprano one, slowly start to pour water from the jug into the bowl. When soprano 1 is almost finished, soprano 2, begin to do the same. Same for soprano 3 (once sop 2 is almost finished).

*see notes explanation:
If the notes are too low or too high in places like the recurring theme which is first heard at bar 143, liaise with the other singers to all sing roughly in the range indicated but with only microtonal intervals between voices.
Always keep the sound as dissonant as possible with small intervals between notes where marked to do so. Breathe as and when necessary but make sure breathing is as staggered as possible between one another to ensure continuity of sound.

Conductor

You may find it helpful to have two metronomic devices as the timinigs need to be specific in order to co-ordinate with the electronics and jumping from one speed to another would be easier with the second metronome already set, so an immediate and accurate switch is possible.

In part 2, start beating as soon as the first singer starts pouring the water
In part 3, please conduct in crotchet = 60
Part 3, The Bayou, involves everyone working autonomously, with intermittent moments of coming in or off together. I have created a line for you to follow to bring people off and on, irrespective of where they are in their score. Due to every instrument playing at a different metronome speed, it will be necessary to bring people in at many of their entries in this movement (as they wont be able to concentrate on two metronome speeds at once).

Strings

The double Bass needs to be a 5 string bass

Part 1

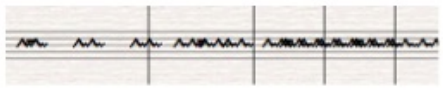
Strings do not need to be amplified for Part 1.

Part 2

All strings need to be amplified for Part 2

Violin 1 will need a shaker

Bar 136: **Crackle Technique**
See video



This involves turning the instrument over and pressing the hairs of the bow onto the back of the instrument. Press hard enough that the wood of the bow *pops* across each hair it comes into contact with. This will not damage the instrument.

Part 3

Vlc 2 and Db need to be rigged up to their own individual microphones (preferably contact mics) which are individually connected to the max patch called *Swamp.*

Every string player will need to download a metronome app onto their phone if they do not already have one.
It needs to be set to a silent setting.
If the silent setting is too difficult to follow as it will be going against everyone else, then the use of earphones plugged into the phone might be helpful. The idea with the first part of this movement is a swamp full of animals.
The animals/birds/reptiles/insects should sound totally a-rhythmical and not at all related to one another (hence everyone being in different metronome speeds). The timing does not need to be rigidly adhered to – it is just to help make the instruments sound like they are imitating animals (each instrument is imitating a specific real actual animal call in this section).
Please play in a free, non- rigid, loose way – this is important for the feel of the movement.
The conductor will keep things together and bring individuals or everyone on or off when necessary.

This section is intended to give the impression of animals in a swamp – birds, reptiles and insects, all singing their autonomous songs, but with occasional moments of coming together and joining in silence.
The max patch called *swamp* provides varying and randomized degrees of delay – evoking a feeling of echoes in the forest and an autonomous cacophony.

Part 4

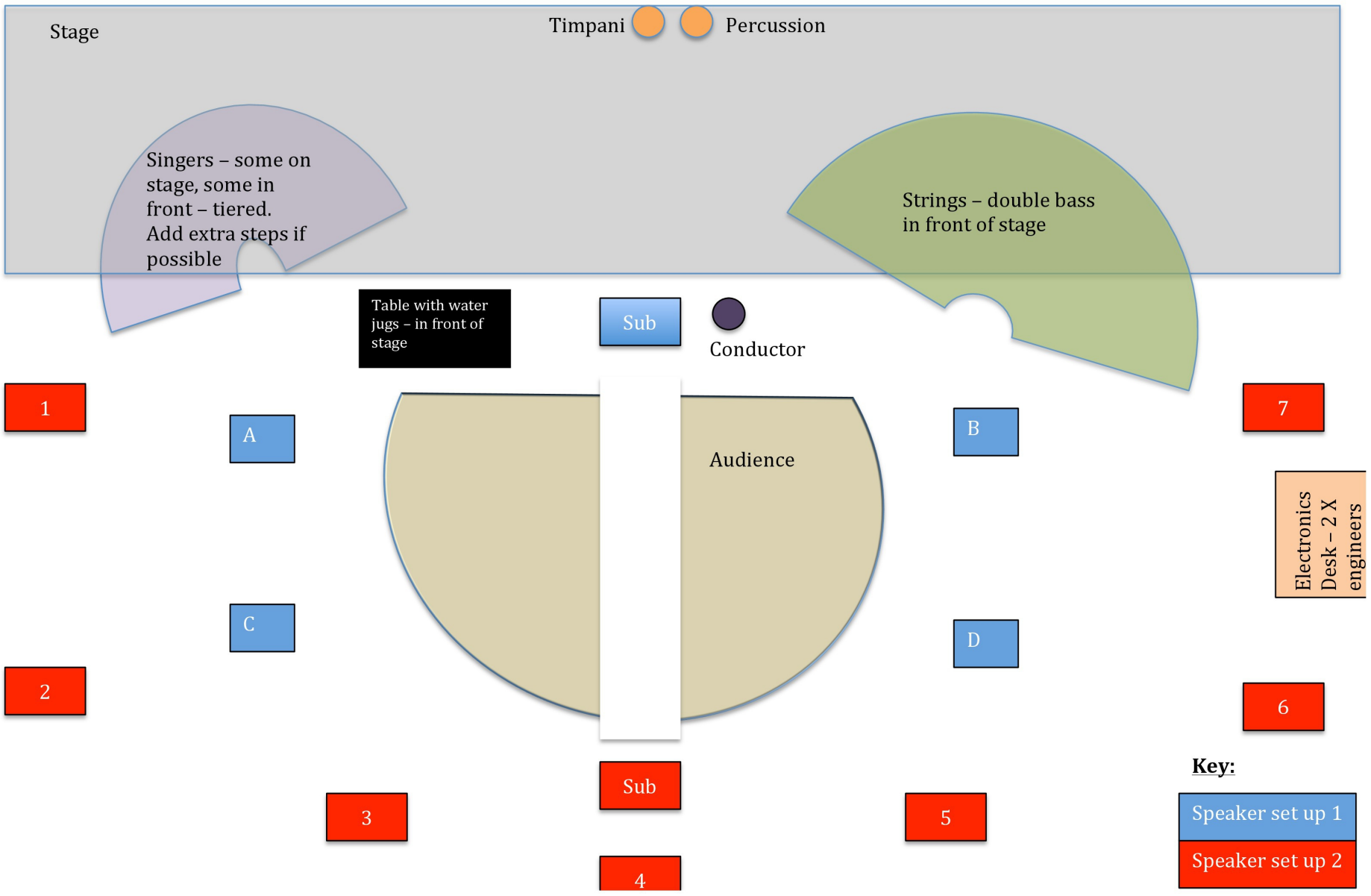
Bar 312: **Air Technique**
See video

This involves holding the section of instrument between the fingerboard and bridge on the Violin or Viola as near to the microphone as possible – holding it upside down might be easiest as the microphone will be overhead – and blowing horizontally across the strings in the area where you play in 1st position. A slight shimmering sound from the open strings can be heard if you hold it at a certain angle.

Bar 387 onwards: **Raindrop Technique**
See video
Create the chord with left hand, and with right hand use several fingers to just apply pressure to both strings and then release in order to create the sound. The sound is created from the *unsticking* of the fingers as they come away from the string. Do this with very fast repeated notes, swapping between the notes in the chord randomly (the same sound will be happening in the electronics as well).

Layout of Strings, Voices, Speakers and Room

(Dependent on the shape and size of the room, but use as a guide)



Part 1: Humidity

Instrumentation: Strings, 8-Part Female Voice Choir, Percussion & Electronics
Duration: ca. 4 minutes

Marie Laveau

Part 1: Humidity

Katherine Betteridge

♩ = 50

Percussion

Soprano 1

Soprano 2

Soprano 3

Alto 1

Alto 2

(Female) Tenor 1

(Female) Tenor 2

(Female) Tenor 3

don't use harmonic, non vib

Violin 1

Violin 2

Violin 3

Viola 1

Viola 2

Violoncello 1

Violoncello 2

5 String Double Bass

p

pp

non vib

p

pp

other side of the bridge, E string (approx F♯)

p

pp

non vib.

slight swell at end of note

p

mp

non vib.

pp

Engineer 1 (Electronics set-up 1)

Engineer 2 (Electronics set-up 2)

A

16

(tam tam)
l.v.

(sempre)

(sempre)

(sempre)

Perc.

pp *p* *mp* *mp*

S.1

S.2

S.3

A.1

A.2

T.1

T.2

T.3

Vln. 1

Vln. 2

Vln. 3

sempre until bar 30

Vla. 1

slight swell
at end of note

sempre until bar 30

Vla. 2

p *mp*

Vc. 1

p

Vc. 2

p

Db.

mp

Start Part 1
Sample 1
AS

sample (of accordion) will start here

chain gang hammer will start here

Sample ends

Elec. 1

Elec. 2

30

Perc.

S.1 — p — Mmm Mmm

S.2 — p — Mmm Mmm

S.3 — p — Mmm Mmm

A.1 — p — Mmm Mmm Mmm

A.2 — p — Mmm Mmm Mmm Mmm Mmm Mmm Mmm

T.1 — p — Mmm Mmm Mmm Mmm Mmm Mmm Mmm

T.2 — p — Mmm Mmm Mmm Mmm Mmm Mmm Mmm

T.3 — p — Mmm Mmm Mmm Mmm Mmm Mmm Mmm

Vln. 1

Vln. 2

Vln. 3

Vla. 1 — no swell

Vla. 2 — no swell

Vc. 1

Vc. 2

Db.

Elec. 1

Elec. 2

Part 2: Ritual

Instrumentation: Strings, 8-Part Female Voice Choir, Percussion & Electronics
Duration: ca. 9 minutes

Part 2: Ritual

♩ = 86

45

A

Perc.

Timp.

S.1 — see "Part 2" in performance directions

S.2 — see "Part 2" in performance directions

S.3

A.1 — once water has started being poured, start making a quiet hissing sound until the main theme starts in bar 66 — slowly tilt rain stick — same

A.2 — once water has started being poured, start making a quiet hissing sound. After 30 seconds make a quiet high pitched giggle. Do this again approximately 10 seconds later.

T.1 — once water has started being poured, start making a quiet hissing sound until the main theme starts in bar 66

T.2

T.3

Vln. 1 — have shaker ready — shaker

Vln. 2

Vln. 3

Vla. 1

Vla. 2

Vc. 1 — have shaker ready — shaker (cue) — shaker (not cue)

Vc. 2

Db.

Start Part 2
Sample 1
AS

Elec. 1 — Sssssssss... (snake, water dripping and vocals - vocals include sssss and occasional quiet giggles)

Elec. 2

B

66 (Bass drum)

Perc.

ff

Timp.

ff

S.1

S.2

S.3

A.1

A.2

T.1

T.2

T.3

Vln. 1

Vln. 2

Vln. 3

notes need to sound
messy - slightly out of tune
and with a scratchy tone.

gliss. *gliss.* *gliss.* *gliss.* *gliss.* *gliss.*

ff

Vla. 1

pizz.

ff

Vla. 2

pizz.

ff

notes need to sound
messy - slightly out of tune
and with a scratchy tone.

Vc. 1

ff

Vc. 2

pizz.

ff

Db.

pizz.

ff

Sample finishes here

Elec. 1

Elec. 2

C

76

Perc.

Timp.

ff

ff

spoken - slightly shouted

S.1

Nou zòt Po-pá ki dan syèl lá

S.2

Nou zòt Po-pá ki dan syèl lá

S.3

Nou zòt Po-pá ki dan syèl lá

A.1

Nou zòt Po-pá ki dan syèl lá

A.2

Nou zòt Po-pá ki dan syèl lá

loudly whispered

T.1

Nou zòt Po-pá ki dan syèl lá

T.2

Nou zòt Po-pá ki dan syèl lá

T.3

Nou zòt Po-pá ki dan syèl lá

martele bowing and play near to fingerboard to create an "ugly" tone

Vln. 1

mf

pizz.

ff

Vln. 2

mf

pizz.

ff

Vln. 3

mf

tr gliss. *f*

tr gliss.

tr gliss.

play all notes with one finger (drunk sounding)

III

Vla. 1

arco

Vla. 2

arco

Vc. 1

pizz.

ff

arco

Vc. 2

ff

arco

Db.

ff

Elec. 1

Start Part 2
Sample 1
Speaker 1

Elec. 2

"Goto goto goto…"

D

86

Perc.

Timp.

S.1

S.2

S.3

A.1

A.2

T.1

T.2

T.3

Vln. 1

Vln. 2

Vln. 3

Vla. 1

Vla. 2

Vc. 1

Vc. 2

Db.

Elec. 1

Elec. 2

mp *f*

mf

whispered make slight accent at the end
- make the shhh very deliberate sounding

Shhhhhhhh

mf

aw-ow - wah

roll the 'r'

Brrrr ah!

spoken sprechstimme-style
but with an uncertain tone

mp

Mé dé-liv - ré

nou - zòt di mal

spoken with an
upbeat tone

Mé dé-liv - ré

make a sound somewhere
between crying and laughing.

whispered make accent at the end
- make the shhh very deliberate sounding

Shhhhhhhh

spoken - very deadpan

To-kin nom li sink-tif-yé n'ap spé-ré pou to r-way-omm a - ri-vé

arco
play with one finger -
drunken sounding -
seperate bows
III

mp

(normale)

mf

mp

3 *"tico tico tico"*

7 *"Goto goto goto"*

5 echoey laughing

94

E

Perc.

Timp.

S.1

S.2

S.3

A.1

spoken with a light happy tone

spoken with a quick, stunted fearful tone

spoken with a heldback, uncertain tone

nou-zòt di mal Mé dé-liv-ré nou-zòt di mal Mé dé-liv-ré nou-zòt di mal Mé dé-liv-ré nou-zòt

A.2

sempre

only weeping this time

T.1

T.2

Shhhh.... Shhhh....

T.3

é n'a fé ça t'ole dan sy èl pa-rèy si la tèr don-né-nou ojor-di di-**pin** tou yé jou é par-donné nou-zòt pé-sché pa ré nou par-donne lê moun ki-fé

Vln. 1

Vln. 2

disjointed, spikey, jagged

Vln. 3

Vla. 1

pizz.

Vla. 2

pizz.

scratchy sound as before

arco

Vc. 1

pizz.

Vc. 2

pizz.

Db.

pizz.

Elec. 1

4 Howl

2 Loon call

7 Echoey laughing

Elec. 2

101

Perc.

Timp.

S.1

(sung)

f

i - eeeeeeee...

aggressively (roll the r)

Brrrr ah!

S.2

rattle stick inside wooden block

whispered loudly

Dan ge- ba -we

S.3

whispered loudly

Dan ge-bow-ie Ge ru... da!

A.1

sing note indicated, with a childish, whining, forced tone

spoken with a soft, kind, warm tone

di mal nou-zòt di mal Mé dé-liv-ré **nou**-zòt di mal Mé dé-liv-ré nou-zòt di mal

A.2

T.1

T.2

T.3

nou - zòt mal pa ki-té nou-zòt si - kom - bé ten - ta - sy on la Mé dé-liv-ré nou-zòt di mal

Vln. 1

f

gliss.

use one finger (III)

Vln. 2

use one finger

mf

Vln. 3

use one finger (III)

Vla. 1

Vla. 2

Vc. 1

Vc. 2

Db.

Elec. 1

Elec. 2

4 Loon call

109

♩ = 75

F

Perc.

sfz

(do not dampen)

Timp.

(do not dampen)

S.1

(whispered)

Dam bah la

loud whisper

I ya-ta wé-do dam-bah-la I-yi-san

quietly spoken

Dan ge - ba-we ag-we Ge-ru-da Dam-bah-la Ge-ru-da A

S.2

(whispered)

Dam bah la

quietly spoken

I ya-ta wé-do dam-bah-la I-yi-san Dan ge - ba-we ag-we Ge-ru-da Dam-bah-la Ge-ru-da A

S.3

(whispered)

Dam bah la

loud whisper

I ya-ta wé-do dam-bah-la I-yi-san Dan ge - ba-we ag-we Ge-ru-da Dam-bah-la Ge-ru-da A

A.1

seductive tone

di mal di mal di mal

loud whisper

I ya-ta wé-do dam-bah-la I-yi-san

quietly spoken

Dan ge - ba-we ag-we Ge-ru-da Dam-bah-la Ge-ru-da A

A.2

spoken

wé-do wé-do

T.1

T.2

di mal di mal

T.3

di mal di mal di mal

Vln. 1

normale

ff

Vln. 2

ff

Vln. 3

normale

ff

Vla. 1

arco

sfz

Vla. 2

arco

sfz

Vc. 1

Vc. 2

sfz

Db.

sfz

Elec. 1

3 Loon call

7 Laughing, sample ends

Elec. 2

G

♩ = 120 quicker, change of pace
lively

Bongos

120

Perc.

Timp.

quicker, change of pace
loudly, assertively spoken

S.1 zu-li Ge-ru-da O-gun Ge-ru-da Ge-de I - ya - ta Wé-do Dam-bah - la I - yi-san Dan - ge-ba-we

S.2 zu-li Ge-ru-da O-gun Ge-ru-da Ge-de I - ya - ta Wé-do Dam-bah - la I - yi-san Dan - ge-ba-we

S.3 zu-li Ge-ru-da O-gun Ge-ru-da Ge-de I - ya - ta Wé-do Dam-bah - la I - yi-san Dan - ge-ba-we

A.1 zu-li Ge-ru-da O-gun Ge-ru-da Ge-de I - ya - ta Wé-do Dam-bah - la I - yi-san Dan - ge-ba-we

A.2 I - ya - ta Wé-do Dam-bah - la I - yi-san Dan - ge-ba-we

T.1 I - ya - ta Wé-do Dam-bah - la I - yi-san Dan - ge-ba-we

T.2 I - ya - ta Wé-do Dam-bah - la I - yi-san Dan - ge-ba-we

T.3 I - ya - ta Wé-do Dam-bah - la I - yi-san Dan - ge-ba-we

shaker

quicker, change of pace
lively

Vln. 1

Vln. 2

Vln. 3

Vla. 1

Vla. 2

Vc. 1

Vc. 2

Db.

quicker, change of pace

Elec. 1

Elec. 2

129

Perc.

Timp.

S.1 Ge-ru - da Ag - we Ge-ru - da Dam-bah - la Ge-ru - da A-zu - li Ge-ru - da O-

S.2 Ge-ru - da Ag - we Ge-ru - da Dam-bah - la Ge-ru - da A-zu - li Ge-ru - da O-

S.3 Ge-ru - da Ag - we Ge-ru - da Dam-bah - la Ge-ru - da A-zu - li Ge-ru - da O-

A.1 Ge-ru - da Ag - we Ge-ru - da Dam-bah - la Ge-ru - da A-zu - li Ge-ru - da O-

A.2 Ge-ru - da Ag - we Ge-ru - da Dam-bah - la Ge-ru - da A-zu - li Ge-ru - da O-

T.1 Ge-ru - da Ag - we Ge-ru - da Dam-bah - la Ge-ru - da A-zu - li Ge-ru - da O-

T.2 Ge-ru - da Ag - we Ge-ru - da Dam-bah - la Ge-ru - da A-zu - li Ge-ru - da O-

T.3 Ge-ru - da Ag - we Ge-ru - da Dam-bah - la Ge-ru - da A-zu - li Ge-ru - da O-

Vln. 1

Vln. 2

Vln. 3

Vla. 1

Vla. 2

Vc. 1

Vc. 2

Db.

Crackle technique - turn violin over and press bow hairs down onto the back of the instrument - see notes and video

Elec. 1

Elec. 2

137

♩ = 60

H

Perc.

Timp.

S.1 — gun Ge-ru - da Ge-de

S.2 — gun Ge-ru - da Mè-si

S.3 — gun Ge-ru - da Ge-de

A.1 — gun Ge-ru - da Mè-si

A.2 — gun Ge-ru - da Ge-de

T.1 — gun Ge-ru - da Mè-si

T.2 — gun Ge-ru - da Ge-de

T.3 — gun Ge-ru - da Mè-si

*see notes

(breathe when necessary. stagger breathing with other singers)

Mmm...

Crackle technique - turn violin over and press bow hairs down onto the back of the instrument - see notes and video

nat.

Vln. 1

Vln. 2

Vln. 3

Vla. 1

Vla. 2

Vc. 1

Vc. 2

Db.

Start Part 2 Sample 2 AS

chaingang hammers

electronics echo singers "Mmmm's" and rumbling synth

(chaingang hammers)

Elec. 1

Elec. 2

Perc.

Timp.

S.1

S.2

S.3

A.1

A.2

T.1

T.2

T.3

Vln. 1

Vln. 2

Vln. 3

Vla. 1

Vla. 2

Vc. 1

Vc. 2

Db.

Elec. 1

Elec. 2

mf Ahhhh...

mp Ahhhh...

mf Ahhhh...

mf Ahhhhh...

p *gliss.*

mp *gliss.*

(chaingang hammers)

electronics echo singers "ah's" (getting louder)

(chaingang hammers)

high Ahhhhs

hammers but very compressed

low mmm's start

ppp

I

175

Perc.

Timp.

sing as low and as quietly as possible (any note - keep dissonant with the other singers)

S.1 — *p* — Mmmm...

S.2 — *p* — Mmmm...

S.3 — *p* — Mmmm...

A.1 — *p* — Mmmm...

A.2 — *p* — Mmmm...

T.1 — *p* — Mmmm...

T.2 — *p* — Mmmm...

T.3 — *p* — Mmmm...

Vln. 1 — *gliss.*

Vln. 2 — *p* — *gliss.*

Vln. 3 — *p* — *gliss.*

Vla. 1 — *gliss.*

Vla. 2 — *gliss.*

Vc. 1 — *p* — *gliss.*

Vc. 2

Db.

Elec. 1

Elec. 2

Perc.

Timp.

If this note is too low, just sing as near to it as possible

S.1 *p* Mmm...

S.2 *p* Mmm...

S.3 *p* Mmm...

A.1 *p* Mmm...

A.2 *p* Mmm...

T.1 *p* Mmm...

T.2 *p* Mmm...

T.3 *p* Mmm...

Vln. 1 *gliss.* *pp*

Vln. 2 *gliss.* *pp*

Vln. 3 *gliss.* *pp*

Vla. 1 *gliss.* *pp*

Vla. 2 *gliss.* *pp*

Vc. 1 *gliss.* *pp*

Vc. 2 *pp*

Db.

Elec. 1

Elec. 2

Part 3: The Bayou

Instrumentation: Strings, 8-Part Female Voice Choir, Percussion & Electronics
Duration: ca. 6 minutes

Part 3: The Bayou

♩ = 60

203

Timp.

S.1

S.2

S.3

A.1

A.2

T.1

T.2

T.3

Play three note mobile intermittently at first, but over 25 seconds decrease the spaces between repetitions so the rhythm is eventually heard non-stop. The conductor will signal when to stop (the 25 seconds is only a guideline).

spritely and light
play near tip of bow
c.110

mp

Vln. 1

Vln. 2

Vln. 3

Vla. 1

Vla. 2

Vc. 1

excited
c.125

Play three note mobile constantly repeating at first, but over 10 seconds, create intermittent gaps. The conductor will signal when to stop (the 10 seconds is only a guideline).

mp

3

Please see notes re max patch instructions.
Play notes in the mobile at approximately met mark 90 but play in a free, relaxed way

arco
c.90 Play on or near the harmonic nodes - the specific notes are not important. Try to create multiphonics where possible by pressing near to the bridge (molto pont). Create a raspy sound.

Vc. 2

Please see notes re max patch instructions
arco, molto pont (detaché) raspy sound
I

"bow sweep"

ord

mp

Db.

♩ = 60

Switch Db. and Vlc. 2 Max Patches on Db. to speaker D, Vlc. to speaker A

Elec. 1

Elec. 2

217

Timp.

S.1

S.2

S.3

A.1

A.2

T.1

T.2

T.3

Vln. 1

play at tip of bow, same speed as before
watch conductor for entry - keep repeating

mp

watch conductor for entry, but
then repeat randomly. Same speed
as before

mp

conductor will only bring Vln 3 off here.
Immediately start diminuendo

mf

Vln. 2

c.110 play at tip of bow

mp

conductor will bring Vln 3 off here
immediately start diminuendo

mf

Vln. 3

c.96

mf

repeat (including rests) until conductor brings you off

Vla. 1

c.110 play at tip of bow - only play mobile once here

mf

play at tip of bow - only play mobile once
c.110

mf

Vla. 2

same speed as before
watch conductor for entry

mp

repeat randomly same speed as before

mp

conductor will bring Vln 3 off here
immediately start diminuendo

Vc. 1

slide up to the notes
from slightly below

still c.90 - keep repeating mobile until conductor
stops everyone

Vc. 2

pp

Db.

make the tone as raspy as possible - still molto pont

Switch patches off

Switch both
patches back on
after GP

Switch Db. patch off

Elec. 1

GP

**Start Part 3
Sample 1
speakers 3 & 4**

Alligator Hiss
6

Elec. 2

GP

alligator growl

A

228

Timp.

pp

S.1 pp mp Mmm...

S.2 pp mp Mmm...

S.3 pp mp Mmm...

A.1 pp mp Mmm...

A.2 pp mp Mmm...

T.1 pp mp Mmm...

T.2 pp mp Mmm...

T.3 pp mp Mmm...

Vln. 1 ppp mp gliss. gliss. gliss. gliss. gliss. gliss. very slow gliss over 1 minute rising to D5 (til bar 257) f

Vln. 2 ppp mp gliss. f

Vln. 3 mp f

Vla. 1 mp f

Vla. 2 ppp mp f

Vc. 1 mp mp

Vc. 2 mp f

Db. pizz. mp

Switch Vlc. patch off

Start Part 3 Sample 1 AS - on very quiet setting

very quiet recording of string animal sounds

Elec. 1

Alligator sounds
Slowly move sound from speakers 1 then 2 then 3 etc to 7 - as if the alligator were walking around the back of the audience (long sample)

Elec. 2

245

B

Timp.

Make a long croaking sound. Do this by pushing your voice as low as it will go but with no actual note, just a broken croaking sound. Stagger breathing with other singers. The accompanying video demonstrates this sound.

S.1

S.2

S.3

A.1

A.2

T.1

T.2

T.3

Vln. 1

Vln. 2

gliss.

gliss.

(gliss ends)

Vln. 3

Vla. 1

Vla. 2

rit. (it is only Vc1 that is rit so just start to pull the notes back but stop when DB starts pizz.

(DB pizz. cue)

Vc. 1

Vc. 2

raspy tone again (molto pont.)

arco.

pizz.

Db.

switch Db. patch on - it might comes through all spoeakers due to the setting of the sample currently playing - this is fine

switch Db. patch off

Elec. 1

Elec. 2

258

C Più mosso

♩ = 80

Timp.

S.1

Più mosso

♩ = 80

S.2

S.3

A.1

A.2

T.1

T.2

T.3

soothingly

Vln. 1

soothingly

Vln. 2

Vln. 3

Vla. 1

Vla. 2

Vc. 1

Vc. 2

arco.

Db.

Start Part 3 Sample 2
AS, but heavily into sub bass speaker

low synth humm

Elec. 1

Chain gang song. Initially, diffuse very slowly to 7, then 6, then 5 over the first minute. Then at one minute, bring the rest of the speakers' volumes up so the sound fills the room.

Elec. 2

275

Timp.

S.1

S.2

S.3

A.1

A.2

T.1

T.2

T.3

Vln. 1

Vln. 2

Vln. 3

Vla. 1

Vla. 2

Vc. 1

Vc. 2

Db.

Start Part 4 Sample 1 (compressed voices and strings)

8/1

Elec. 1

chaingang stops here (but sample continues til end of movement)

Elec. 2

Part 4: Tempesta

Instrumentation: Strings, 8-Part Female Voice Choir, Percussion & Electronics
Duration: ca. 7.5 minutes

Part 4: Tempesta

294

Cymbal & Tam Tam

♩ = 60

A

Perc. — l.v. pp — same

Timp. — l.v. pp — same

S.1 — sing as low as possible (sing any note - keep dissonant with the other singers) — ppp p — Mmmm... — Slow exhale breath sound with mouth open

S.2 — ppp p — Mmmm... — Slow exhale breath sound with mouth open - loose mouth shape to create sound similar to the electronics

S.3 — ppp p — Mmmm...

A.1 — ppp p — Mmmm...

A.2 — ppp p — Mmmm...

T.1 — ppp p — Mmmm...

T.2 — ppp p — Mmmm...

T.3 — ppp p — Mmmm...

Vln. 1 — pp — *Air technique* - hold instrument vertically in front of body and blow across strings (see perf. dir and video)

Vln. 2 — pp

Vln. 3 — pp

Vla. 1 — pp

Vla. 2 — pp

Vc. 1 — pp

Vc. 2 — pp

Db. — pp

Elec. 1 — Synth Rumble finishes If it hasn't finished, phase it out. — **Start Part 4 Sample 1 Female exhalation breathing sounds 3 & 4.** — Female exhalation breathing sounds (6 & 7) — **Start Part 4 Sample 1 AS** — More breath sounds Randomised slow phasing from speakers positioned far apart from each other — Female breath sounds and string shimmering breath sounds

Elec. 2

Perc.

Timp.

S.1
two sharp intakes of breath as if crying
(same)
fast exhale breath/whisper sound
Ha

S.2
same
same, but cresc to as loud as possible
exhale breath/whisper sound vowel shape "O"
Ho

S.3
same
same, but cresc to as loud as possible
fast exhale breath /whisper sound vowel shape "I", as in "hit"
Hii

A.1
same
same, but cresc to as loud as possible
*Rain stick - slowly rotate once hold near microphone
same but faster rotations
slower rotation
with each rotation make the velocity and speed faster
whispered throaty sound
Hur

A.2
slow exhale breath sound with mouth open - loose mouth shape to create sound similar to the electronics
same
same, but cresc to as loud as possible

T.1
same
same, but cresc to as loud as possible

T.2
same
as loud as possible

T.3
same
as loud as possible

Vln. 1
stop
other side of the bridge
pp
same
pp

Vln. 2
stop

Vln. 3
stop

Vla. 1
stop

Vla. 2
stop

Vc. 1

Vc. 2

Db.

Elec. 1
Alligator hiss
Snake hiss C
Snake hiss B
Rattle snake rattle A

Elec. 2
Long quiet exhale (lasts 5 bars)
1 then 2 then 3 etc - moves slowly around to 7

332

B

Perc.

Timp.

like a diminishing whispered laugh,
right from the back of the throat

h h h h h h h h h h h h h h h h h h h h h h h h

S.1

whispered wind sound - like the wind. Make a large
"O" shape with the lips and push air through

S.2

S.3

whispered wind sound - like the wind. Make a large
"O" shape with the lips and push air through

A.1

Whispered wind sound - like the wind. Make
a large "O" shape with lips and push air through

A.2

Whispered wind sound - like the wind. Make
a large "O" shape with lips and push air through

Inaudible nonsensical whispers using the consonant "S" a lot -
make sure your volume increases with the volume of the storm,
interspersed with giggles

T.1

Whispered wind sound - like the wind. Make
a large "O" shape with the lips and push air through

T.2

Whispered wind sound - like the wind. Make
a large "O" shape with the lips and push air through

T.3

Same

pp

Vln. 1

Vln. 2

Vln. 3

Vla. 1

Vla. 2

Vc. 1

Vc. 2

Db.

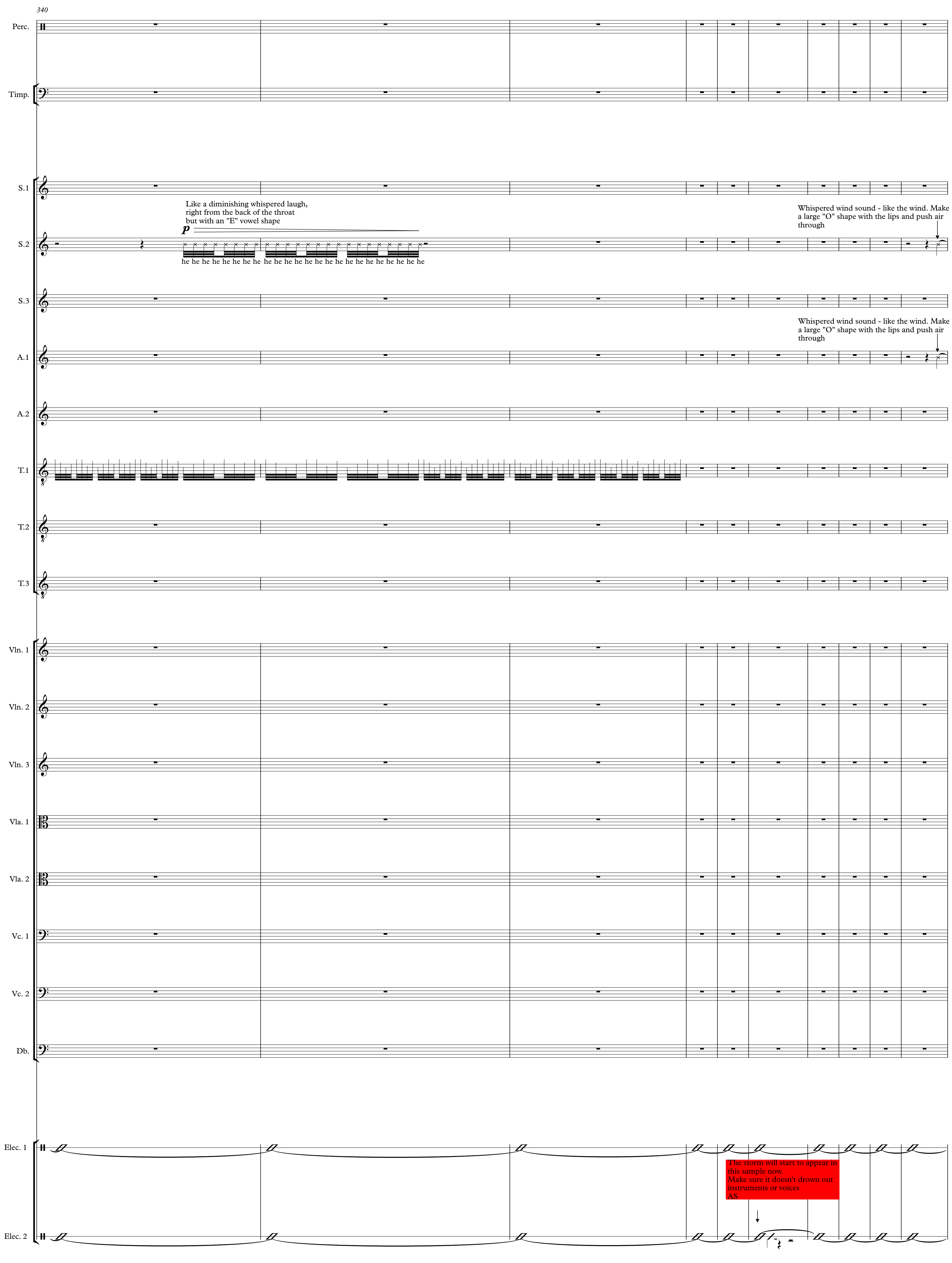
Recording of storm (very long sample)
Ensure it doesn't drown out Elec 2 or the voices
AS

Alligator hiss
C

Elec. 1

Whispers
1, then phase slowly to 5, then phase slowly to 3. Keep phasing very gradually from
one to another (ad lib), but go to speakers a long way apart from each other

Elec. 2


340
Perc.
Timp.
S.1
Like a diminishing whispered laugh, right from the back of the throat but with an "E" vowel shape
p
S.2
he he he he he he he he he he he he he he he he he he he he he he he he
Whispered wind sound - like the wind. Make a large "O" shape with the lips and push air through
S.3
Whispered wind sound - like the wind. Make a large "O" shape with the lips and push air through
A.1
A.2
T.1
T.2
T.3
Vln. 1
Vln. 2
Vln. 3
Vla. 1
Vla. 2
Vc. 1
Vc. 2
Db.
Elec. 1
The storm will start to appear in this sample now.
Make sure it doesn't drown out instruments or voices
AS
Elec. 2

Perc.

Timp.

S.1

same as before

pp

h h h h h h h h h h h h h h h h h h h h h h h h

S.2

S.3

pronounce as in the start of "hot" - as loud as possible

Ho

like a diminishing whispered laugh, right from the back of the throat but with an "O" vowel shape, as in the word "hot"

mp

ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho

*Rain stick - slowly rotate once hold near microphone

A.1

mp

ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho ho

(whispered - start of word "rain")

pronounce as in the start of "hot" - as loud as possible (whispered)

A.2

same

Rai....

whispered - start of word "hit" - tighten throat to make slightly strangled sound

Rai....

whispered - start of word "rain"still with tightened throat

Ho

pronounce as in the start of "hot" - as loud as possible (whispered)

whispered laugh, right from the back of the throat - loose mouth shape

h h h h h h h h h h h h h h h h h h h h h h h h

T.1

Hiii

Rai....

Ho

pronounce as in the start of "hot" - as loud as possible (but whispered)

T.2

Rai....

Ho

T.3

whispered - start of word "rain" - tighten throat to make strangled sound

Rai....

pronounce as in the start of "hot" - as loud as possible (but whispered)

Ho

Vln. 1

Vln. 2

Vln. 3

Vla. 1

Vla. 2

Vc. 1

Vc. 2

Db.

(Storm has now moved to elec. 2)

Low female humm AS

Elec. 1

Elec. 2

357

Wind chime - gently
and intermittently tinkle

C

increase sound and speed

(Cymbal)
start with slow cymbal scrape
then accelerate towards end of
note - sound should synch with
electronics

Perc.

pp

ff

Timp.

p

fff

inaudible nonsensical whispers using the
consonant "S" a lot - make sure your volume
increases with the volume of the storm, interspersed
with giggles

S.1

S.2

S.3

A.1

A.2

h h h h h h h h

T.1

T.2

T.3

Vln. 1

Vln. 2

Vln. 3

Vla. 1

Vla. 2

randomly pluck the strings on the
opposite side of the bridge fast - overlap
notes by plucking with several fingers

Vc. 1

ppp *pp*

Vc. 2

ppp *pp*

Db.

ppp *pp*

Elec. 1

Thunder roll
then clap
AS

Elec. 2

362

Wind chime gently tinkle intermittently until the * sign

D

l.v.

Perc.

Timp.

pp

p

sing as low and as quietly as possible - faint hum under the storm (sing any note - keep dissonant with the other singers)

slightly louder and slightly higher pitch - stay dissonant with other singers

for the glissandi, make the sound an open-throated cry with an "A" vowel shape. Adjust volume to be equal to strings and electronics

normal (non open-throated) singing

S.1

S.2

S.3

A.1

A.2

T.1

T.2

T.3

Mmmm...

Ahhhh...

gliss.

Ahhhhhh

Ahhh

open-throated cry

mf

slowly turn rainstick over once

sing as near to the range the sopranos are singing in as possible but stay dissonant. Normal, non open-throated singing

faint hum under the storm - adjust volume according to singers and electronics

Vln. 1

Vln. 2

Vln. 3

Vla. 1

Vla. 2

Vc. 1

Vc. 2

Db.

low, quiet female ahhh's (still AS)

Elec. 1

Elec. 2

382

E

Wind chime
gently tinkle
intermittently
for 3 bars

Perc.

Timp.

S.1

S.2

S.3

A.1

A.2

T.1 — *pp* — Mmmm...

T.2 — *pp* — Mmmm...

T.3 — *pp* — Mmmm...

Vln. 1 — (II) (IV) (II) — *mp*

Raindrop Technique - create chord with left hand and gently press and release strings with right hand fingers (please see perf. directions and video)

Vln. 2 — *gliss.* — *f*

Vln. 3 — *gliss.* *gliss.* — *f*

Vla. 1 — *gliss.* *gliss.* — *f*

Vla. 2 — *gliss.* *gliss.* — *f*

Vc. 1 — *mf* *gliss.* *gliss.* *f*

Vc. 2 — *mf* *gliss.* *gliss.* *f*

Db. — *f*

Elec. 1 — insect and animal sounds (long sample) (still AS); strings - raindrop technique rec.; if necessary, fade rain sounds to low level so the insects, instruments and voices can be heard

Elec. 2 — storm dies out

400

Perc.

Timp.

S.1

S.2

S.3

A.1

A.2

T.1

T.2

T.3

(IV)

(IV)

(IV)

Vln. 1

Vln. 2

Vln. 3

Vla. 1

Vla. 2

Vc. 1

Vc. 2

Db.

Elec. 1

Elec. 2

420

Perc.

Timp.

S.1

S.2

S.3

A.1

A.2

T.1

T.2

T.3

(IV)

IV

IV

Vln. 1

Vln. 2

Vln. 3

Vla. 1

Vla. 2

Vc. 1

Vc. 2

Db.

Elec. 1

sample ends

Elec. 2

Perc.

Timp.

S.1

S.2

S.3

A.1

A.2

T.1

T.2

T.3

Vln. 1

mp

gradually slow down the
notes to an extremely
slow speed. Think drips of water

Vln. 2

Vln. 3

Vla. 1

Vla. 2

Vc. 1

Vc. 2

fff

Db.

allow insect sounds to continue
until the sample finishes

Elec. 1

Elec. 2

6. *Suite for the Seasons* (2017)

Undefined performance length time, although a typical performance would probably last from between 20 to 30 minutes.

Programme Note

Suite for the Seasons explores the journey a plant makes throughout its yearly lifespan. The composition is in 4 parts – Spring, Summer, Autumn and Winter, with different musicians playing each season.

The performers are required to enter meditative states before playing.

I created this composition during the summer of 2017, whilst living on a farm in rural North Wales. I started writing *Suite for the Seasons* outdoors during a sunny spring day, whilst sitting in a field. The direct experience of noticing the crops pushing through the soil and feeling the first flush of warmth in the air after winter, triggered in me an awareness of my own inner spring awakening. It made me realize how similar was my response to the seasons and to the crops. I noticed that I had been 'closing up' and going inward, retreating into a state of hibernation and introspection during the winter months, and that I became more extroverted with outward moving energy during spring and summer. I was very involved with meditation and Shamanism at this time, which heightened my sense of self-awareness and nature-awareness.

The effect of the cycle of the seasons on me personally, alongside lunar and menstrual cycles, was a focus of a large part of the Shamanic work I was doing. This all tied in with my desire to explore musically nature's connection to our spirit. I have attempted this by suggesting that, before starting to play, the performers meditate on particular themes suggested in the score. All the music is improvised and spontaneous. The piece requires a deep level of connection between the performer and his or her inner world.

The scores for *Suite for the Seasons* are 3D graphic scores, and in some ways are organic due to the use of real plant seeds, the stems of plants and also dried leaves. I wanted to connect the performer to something more visceral than paper and ink as the piece depends very much on stimulating the performer's internal world. I enjoy painting, and feel that the visual impact of a picture/painting/photograph or the texture of something can influence a performer's interpretation of how they play a piece of music. For the purposes of this portfolio, photographs of the original scores have been used.

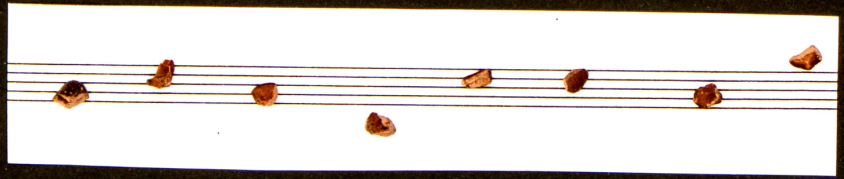
Katherine Betteridge

Suite for the Seasons

Winter

Before performing, meditate on these concepts:
Introspection, withdrawing into the shadows, self evaluation, reflection, peace, geotation, taking root, darkness, quiet, stillness, calm, hibernation

Play each note thoughtfully and slowly, leaving enough space for each sound to take root. Consider after each note, was it planted in a way that it can and has the potential to grow? Was it planted deep enough?



Katherine Betteridge

Suite for the Seasons
Spring

Before performing, meditate on these concepts: The impermanence of darkness, resurrection, the certainty of nature's cycles, creation, the expression after a period of gestation of an idea, growth, renewal, quietness, gentleness, the beginnings, transition

Choose one of the seeds planted in Winter. Consider your choice. Nurture it and begin to develop it. Only develop it in its beginning stages. It is not yet ready for full expression.

Katherine Betteridge

Suite for the Seasons
Summer

Before performing, meditate on these concepts:

High energy, full expression, flourishing inwards and outwards, abundance, colour, textures, height, occupying all the space required for full expression, bursting forth, radiating.

Take the seed which was at its beginnings in Spring and develop it to its full capacity. Use your own inner nature as a guide as to what "full capacity" means for you. Occupy as much physical and environmental space as you need.

Katherine Betteridge

Suite for the Seasons
Autumn

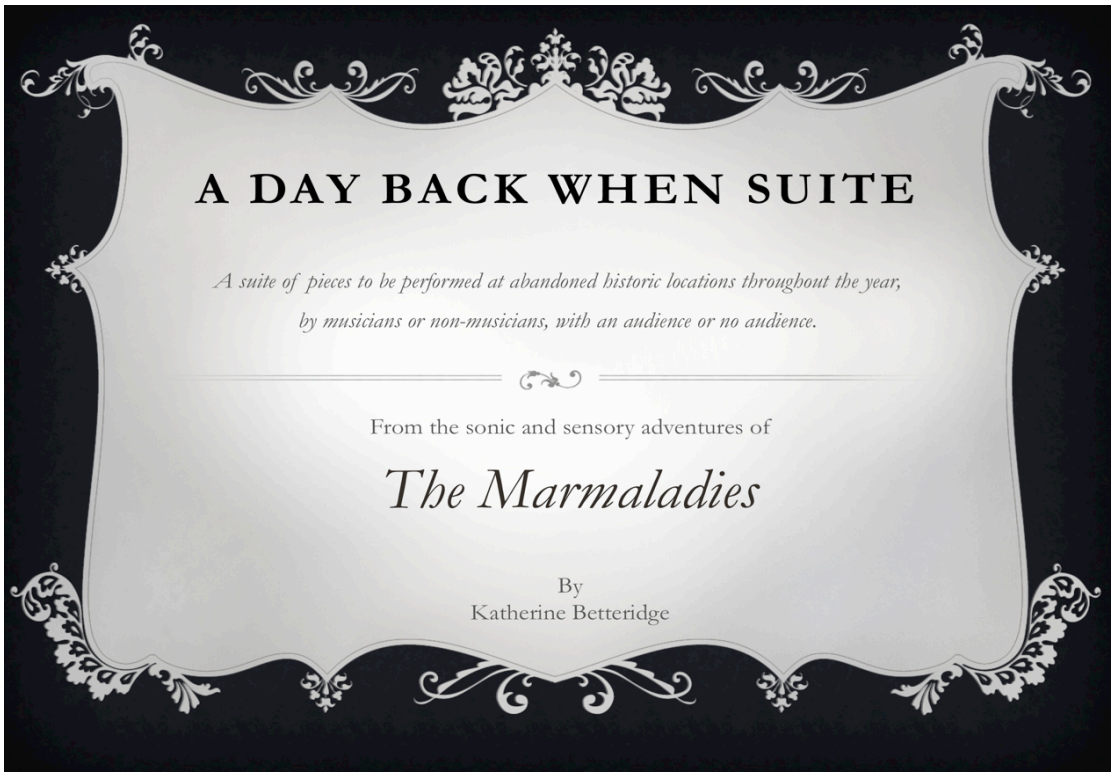
Before performing, meditate on these concepts:

the inevitability of death, the beauty involved in letting go, release, closing down, resting, transition, the approach of darkness, impermanence, withdrawing into the self, nature's cycles, balancing light and dark

Take the musical expressions from summer and begin to allow it to disintegrate, close the ideas down and let them fall away, slowly and gradually. Watch your inner responses to these ideas.

7. *A Day Back When Suite* (2017)

Undefined performance length time, although a typical performance would last around 2 hours. This excludes the time taken to explore and vet the buildings and also excludes the gaps between pieces (as they all happen at different locations and some need to take place at different times of year).



This composition is the outcome of a variety of adventures undertaken by The Marmaladies (Sarah Brook, Sioned Eleri Roberts and myself). The score was created retrospectively after our adventures in order to provide opportunities for others to re-create similar sonic and sensory events themselves. The intended audience can be either academic or non-academic – it does not matter. This score, along with *Suite for the Seasons*, was developed with a much freer approach to music-making in mind, inspired by the adventures with the Marmaladies. Although this score appears to be quite different to the majority of scores within the portfolio, it still has the same essence, focusing on the themes of nature and magic, the nature we encountered that had taken over the derelict buildings, and the magic we felt when stepping into these forgotten places. In the other works in this portfolio I used my imagination to create in my mind the realities I wanted to create musically on the page, whereas with *A Day*

Back When Suite I sought direct contact with the natural world, allowing the experience to guide the shaping of the improvised music. If someone were to play the music in this portfolio, it is hoped that *A Day Back When Suite* would encourage them to explore the nature and magic within themselves whilst out in nature, a necessary pre-requisite for any authentic performance of the works within the suite.

The experiences we had during our adventures, our performances in non-conventional settings and our direct engagement with nature and history opened our eyes to their potential impact on our personal and social wellbeing. An element of meditative guidance is included in the text of each piece**,** to enable the musicians or non-musicians involved to tune into their inner being and to the environment before starting to perform. For a definition of non-musician please see the score.

There are prompts in each of the pieces which remind the player to tune into the feelings in the body. It is important to stay with the feelings, the sensations and emotions within the body without it becoming too cerebral. If the mind is allowed to take over, the music may just become more of an intellectual and superficial exercise. In fact, if fear is the main emotion being experienced and if the mind is allowed to completely take hold, the music might actually become impossible to perform at all.

All of the pieces in the suite are to be performed at specific times of the day, or even specific times of the year. They are all intended to be performed in interesting locations, and the important element of *intention* needs to be very present in order to make the performances worthwhile experiences. Intention changes the entire way we experience something, and could also be said to be one of the main components to make a ritual a ritual.

Within the pieces in this suite, it is important to allow random sounds in the environment to become a part of the experience rather than trying to avoid or control these aspects of the sonic environment.

There are video and audio versions of this score in the appendices but some are under different names:

- *Voices from the Deep* is the same in the suite and the video
- *Artillery Chamber Music* is also the same for both
- *Tunnel Vision* is the same for both, but there is only an audio version of this piece (there is no video)
- *Seeking an Asylum* is the same for the suite and video
- *Anarchic Aristocratics: Night Music* in the suite is called *Baron Hill Night* in the video
- *Anarchic Aristocratics: Dawn Music* in the suite is called *Baron Hill Dawn* in the video

A DAY BACK WHEN SUITE

A suite of pieces to be performed at abandoned historic locations throughout the year, by musicians or non-musicians, with an audience or no audience.

From the sonic and sensory adventures of

The Marmaladies

By
Katherine Betteridge

*The composer accepts no liability for any accidents caused as a result of participation or performances of any of the compositions within this suite. All decisions taken therein are the responsibility of the participants.

A Day Back When Suite

INTERPRETATION AND PERFORMANCE

Performance of this work should be rooted in a joint exploration and interpretation of the guidelines set out at the beginning of each piece. Each performer should read through these guidelines, discuss them with other performers and plan a performance based on a collective response. The aim should be to use the words as inspiration for musical improvisation, rather than reducing them to strict notation. They should not be perceived as a formulaic recipe or template. Each player should attempt to create an authentic individual performance whilst responding intuitively and sensitively to other players. The aim should be to create music that is grounded in a meaningful and enriching interpersonal dynamic that opens the door to unpredictable and surprising outcomes.

These pieces are designed as a musical and sensory experience, as much for the performers as for an audience. The presence of an audience is not essential and the performance has been a 'success' if the performers (and audience if present) have enjoyed the experience and/or gained something from it.

DEFINITION OF TERMS

"Non-musician" refers to a person who (a) has never learned to play an instrument or to sing and/or (b) self-identifies as non-musical.

"Interact musically" refers to the act of listening and responding in a sensitive manner to other musicians, for example, copying or replying to a phrase, or choosing to play a different phrase or sound. The main aim is to tune into other players in a sensitive manner.

"When it feels right" refers to using one's own personal sense, judgement and intuition as a barometer of how, when and what to play.

"Cacophony" in this context refers to sounds becoming so confusing due to the immensity of the echoes in a chamber, that individual sounds lose their individuality and the entire array of sounds becomes one large, loud, indefinable sonic entity.

Contents

Voices from the Deep

Go to a rural location and find an abandoned mine with an underground lake. This performance should take place on the midwinter solstice.

Requirements

- Musical instruments (baring in mind that mines are damp places, so non-precious or plastic instruments might be most suitable). Each person can experiment with more than one instrument to find out what suits the player and also the spaces
- 2 Performers (musicians or non-musicians)
- Victorian costumes
- An inflatable boat and black or dark material to cover the boat if it is a bright colour + rope to tether the boat
- 20 or more tea lights or free-standing candles
- Torches and head torches – enough for everyone to make their way safely through the mine
- Portable chargeable bright lights (ready charged) to illuminate the players whilst performing (in addition to tea lights)
- Wellies for everyone (disused mineshafts often have pools of water that must be waded through in order to go deeper into the mine)
- Warm clothing for everyone (thermals will be especially effective and can be worn under the Victorian costumes)
- Waterproof clothing (mines are usually very wet places with a lot of water in the air)
- Some pieces of veil-like, semi-opaque material
- Several lighters
- An audience or no audience

Once a suitable area has been found, inflate the boat and cover it with the black material if necessary then put it on the lake and tether it to something. Set up three varied performance spaces, one of which should be next to the lake (near where the boat is tethered) the others could be in different chambers and cavers and/or on different tiers. Distribute tea lights to add ambience and pieces of material to create an interesting-looking environment – do this by draping the material from pieces of rock above head height to create curtain-like veils. Set up the bright lights in such a way that the physical lights are concealed but that the light from them illuminates where the performers intend to stand.

The performance

The performance will have three movements each one taking place in a different location, the final location for the final movement being the boat. The locations should be chosen in accordance to the way that they make you feel in relationship to their corresponding movement. The movements should be as follows and in this order:

1. Slow
2. Fast moving to frenetic
3. Dream-like

Move to the first chosen performance location and listen to the space, focusing on the experience of the space, smelling the air, feeling the edges of the darkness beyond the lights, then, when you feel ready, begin to improvise, actively responding to the space, tuning into the self to find out how the space is reflected within, then reflecting this back out through your music. Do not think too hard about this though; it should be a feeling process, not a thinking one; simply set the intention. Allow the music to be shaped by how the space makes you feel and how the acoustic affects the sound.

Interweave and interact musically and theatrically with the other performer but in a way that is sensitive and respectful of the space. After the first movement, whilst moving to the second space, mindfully sink into the self to fully engage and be present with the experience of changing environment. Do the same active response to the space in the second and third movements that you did with the first. When each of the first two movements feel to have come to a natural end, both performers board the boat and be seated and improvise the third movement whilst floating around the lake, responding to how the experience makes you feel. The performance will finish naturally once the performers feel that they have fully explored and expressed their inner response to the environment.

Artillery Chamber Music

Find an abandoned WWII artillery chamber. It is preferable that the building has impressive and exceptionally echoey acoustics and interesting graffiti throughout, both from the modern day and also from the 1940s. This adds to the atmosphere of the building environment. This performance can take place at any time of year. If the chamber has places where daylight can get in, the performance should take place at night.

Requirements

- Minimum of two performers (musicians or non-musicians) (no maximum)
- Non-precious musical instruments (voices can also be used). Each person can experiment with more than one instrument to find out what suits the player and also the space
- Enough head torches for torches for everyone
- Portable chargeable bright lights (ready charged) to illuminate the players whilst performing
- Dark hoodies and dark clothing
- Warm clothing and thermals
- Wellies (in case of pools of water which need to be passed through)
- 20 or more tea lights or free-standing candles
- Several lighters
- An audience or no audience

Scan around the building and look for a suitable area to perform in. Once found, set up a performance space, distributing tea lights around to add ambience. Set up the bright lights in discreet positions, so that the physical lights are concealed but the light from them illuminates where the performers intend to stand.

The performance

All players begin to improvise, actively responding to the space, tuning into the self to find out how the space is reflected within, then reflecting this back out through your music, however, do not think too hard about this; it should be a feeling process, not a thinking one; simply set the intention.

If the space is particularly echoic, allow sound to very slowly develop and evaporate, unless you intentionally would like moments of cacophony, which can also be interesting. Allow the music to be shaped by how the space makes you feel, and by how the acoustic affects the sound. Interweave and interact musically with the other performer/s but in a way that is sensitive to and respectful of the space. Play one long movement in one mood that feels right, but moving organically through different moods if that also feels right. Perform for however long it takes to sonically explore the potential of the space. The performance will finish naturally once the performers feel that they have fully explored and expressed their inner response to the environment.

Tunnel Vision

Find an abandoned, long railway tunnel in a secluded location. Preferably one used for the transportation of slate or coal to the coast so that the memory of some sort of mining history is stored within its walls.

Requirements

- Minimum of two performers (no maximum), one of whom should be a clarinetist or saxophonist capable of circular breathing. For this piece it is also particularly important to include non-musicians as well as musicians
- Non-precious musical instruments (voices and percussion instruments should be included). Each person can experiment with more than one instrument to find out what suits the player and also the space
- Long flexible piping from a DIY store, the correct width to fit a clarinet or saxophone mouthpiece in one end (also bring the mouthpiece)
- Enough head torches or torches for everyone
- Warm clothing and thermals – no particular costumes are necessary for this composition
- Wellies (in case of pools of water which need to be passed through)
- 20 or more tea lights or free-standing candles
- Tissue paper or very thin paper
- Several lighters
- An audience or no audience

Walk along the tunnel, repeatedly testing the acoustic (by singing) until you find the area around about halfway through where overtones can be heard along with the notes you are singing. This will be your performance location. If unable to find this place in the tunnel, just estimate a point halfway along. Set up the candles, if there are alcoves (as most railway tunnels have), distribute most of the candles in these as through draughts will blow the candles out. The performers do not need to be well lit for this piece. The performer who will be working with the tissue paper needs to stand down wind of the other players and audience members. The saxophonist/clarinetist will be playing the piping. Depending on the length of pipe this will create a drone-like tone.

The performance

All players begin to improvise, actively responding to the space, tuning into the self to find out how the space is reflected within then reflecting this back out through your music. However, do not think too hard about this; it should be a feeling process, not a thinking one; simply set the intention. Allow the music to be shaped by how the space makes you feel and how the acoustic affects the sound. Experiment in particular with the overtones and harmonics created by the tunnel. Interweave and interact musically with the other performer/s in a way that is sensitive and respectful of the space. When the moment feels right, the person with the tissue paper should light one sheet at a time of the paper and allow the wind to carry the lit paper down the tunnel. The performance will finish naturally once the performers feel that they have fully explored and expressed their inner response to the environment.

Seeking an Asylum

Find an abandoned, derelict “mental asylum” in a remote location. Visit in mid to late autumn, when the leaves have already begun to fall from the trees and the days are shorter. Visit before daybreak, but aim to be playing by the time light has begun to creep through the building.

Requirements

- Minimum of two musicians or non-musicians (no maximum)
- Non-precious musical instruments. Each person can experiment with more than one instrument to find out what suits the player and also the different spaces.
- A battery-controlled transistor radio
- Enough head torches or torches for everyone
- Warm clothing/thermals underneath if necessary
- Wellies (in case of pools of water and boggy areas)
- No audience – unless you can gather a few people who you can trust to behave with deep respect and who will adhere to being in a state of quiet calm and non-sensationalising at all times whilst on the property.

Whilst walking around the building and the grounds, it is important to hold the correct intention. This is a sensitive venture and should be done with a very respectful attitude and state of mind. Walking around the building may at times be disturbing as many atrocities against particularly vulnerable people are likely to have taken place there. Keep tuning into the body and not the mind as the mind may try to sensationalise the experience. Some areas in the building may feel particularly dark and oppressive, and some areas will be dangerous to walk in (due to collapsing ceilings and floors). Have an agreement with the other performers to all be tuned into what feels right and what does not feel right, and to keep quietly consulting with one another as to whether everyone feels ok about entering rooms and to not cross any personal boundaries that feel might make one physically unsafe or potentially damaging to the psyche. Also, whilst on the property, have an agreement to speak in low voices or whispers at all times.

Find an area or room that feels like it contains enough space for your being and for your music to be able to breathe through the atmosphere. Set up the space ready for performance.

The Performance

After a few moments have passed and the time feels right, all players begin to improvise, actively responding to the space, tuning into the self to find out how the space is reflected within, then reflect this back out through your music. Do not think too hard about this; it should be a feeling process, not a thinking one; simply set the intention. Use the radio as an instrument, performing the white noise and vaguely tuning in and out of stations. After playing one piece, if it feels right, move to another location in the building and play another piece. Play as many times as feels accepted by the building. You will know when it is time to leave.

Anarchic Aristocratics: Night Music

Find an abandoned, derelict mansion in a secluded place. The mansion should be so derelict that nature has taken over completely, filling the insides of the building with trees and plants. Visit at nighttime.

Requirements

- Minimum of two musicians (no maximum)
- Non-precious musical instruments. Each person can experiment with more than one instrument to find out what suits the player and also the spaces.
- Enough head torches or torches for everyone
- 2 portable chargeable bright lights (ready charged) to illuminate the players whilst performing
- A variety of Masks – preferably venetian harlequin -like masks and dark cloaks for all performers
- Warm clothing/thermals underneath if necessary
- Wellies (in case of pools of water and boggy areas)
- An audience or no audience. If an audience is invited, an usher will be required – someone who can guide the audience to the correct starting position and who knows when the performance has ended and can guide them away, whilst maintaining and holding the somber atmosphere.

For this piece, the performers will need to adopt a character according to the way that the mask they choose affects them, in addition to how the building affects them. They should move in a slow, solemn, ceremonial way with no talking and every gesture be made with intention. Even though the music itself will be improvised, the physical movement around the building needs to be agreed upon beforehand so that the musicians can stay in character whilst progressing from room to room during the actual performance. This means that the performers should decide which rooms are to be used before the performance takes place (it will be necessary to arrive earlier than the audience if an audience is expected). Assuming there will be many rooms and possibly even many floors to choose from, find rooms that feel most interesting and attractive to the players and which vary enough to evoke a variety of musical moods. There needs to be a minimum of 3 movements, each one performed in a different room. The movements need to be very consciously mood-driven by the feel of the room in which the movement takes place. Once the rooms have been decided upon, practice setting up the performance space in each one, placing the lights in discreet positions and working out where each performer will stand. This is again to avoid breaking out of character during the actual performance.

The performance

Once the performers have decided upon the locations to be used, they should place on the masks and cloaks (if an audience is expected, the costumes should already be on and players in character by the time the audience arrive). For this performance there should be no interaction by the performers with the audience - it is as if the performers are ghosts of the house, unaware of the passing of time. A solemn attitude should be undertaken, and the performers should allow the masks to affect every movement they make and every note they play. All players begin to improvise, actively responding to the space, to the other players and to the masks, tuning into the self and allowing the music to flow. Interweave and interact musically and theatrically with the other performer/s in a way that is sensitive to and respectful of the building. At the end of each movement, walk solemnly, with slow ceremonial movements and no talking to the next room, staying in character and not removing the masks. Each movement should be allowed to finish naturally. When the full performance is finished, the usher needs to silently gesture for the audience to follow them away from the performance site.

Anarchic Aristocratics: Dawn Music

During the spring months, find an abandoned, derelict mansion in a secluded place. The mansion should be so derelict that nature has taken over completely and the insides of the building are filled with trees and plants. Visit the mansion in time to set up and be performing just as it is getting light and the bird dawn chorus at its loudest.

Requirements

- Minimum of two musicians or non-musicians (no maximum)
- Non-precious musical instruments. Each person can experiment with more than one instrument to find out what suits the player and also the different spaces.
- Enough head torches or torches for everyone
- Warm clothing/thermals underneath if necessary
- Wellies (in case of pools of water and boggy areas)
- An audience or no audience

This piece is much lighter in character than Night Music, even if it is being performed at the same location. Once the performers arrive, find a room that is particularly dilapidated so that the sounds of birdsong, either from outside or inside, fill the space.

The Performance

Once set up and instrumentation is chosen, meditate for a few moments, accepting the birdsong to be a soundscape for you to sensitively rest your notes within. These plants and animals have made this building their home now, they have adapted it to become theirs, and you, as a musician, are momentarily, respectfully joining them in their environment.

After a few moments have passed and the time feels right, all players begin to improvise, actively responding to the space and birdsong, tuning into the self to find out how these external influences are reflected within, then reflecting this back out through your music. Do not think too hard about this; it should be a feeling process, not a thinking one; simply set the intention. After playing in one area, if it feels right, move to another location in the building and play another piece. Gauge how many movements and how many spaces are performed within by the length of the dawn chorus. When it calms and becomes quieter, follow it musically and do the same. When it feels like the right time to do so, stop playing.

First performances of the pieces in this suite:

Voices of the deep Croesor Mine, North Wales	21st December 2016	by The Marmaladies
Artillery Chamber Music At a secret location in North Wales	6th May 2016	by The Marmaladies
Tunnel Vision Tynal Tywyll, North Wales	14th September 2015	by The Marmaladies
Seeking an Asylum At a secret location in North Wales	7th October 2017	by The Marmaladies
Night Music Baron Hill Mansion, North Wales	16th April 2015	by The Marmaladies
Dawn Music Baron Hill Mansion, North Wales	2nd May 2015	by The Marmaladies

Created in 2018

8. Aria from *Lost on Mars* (2018)

5.5 minutes long

This Aria was written as a commission for a workshop with Music Theatre Wales in June 2018. The piece was written in collaboration with Luke Moore, a creative writing PhD student who specialises in screen writing. The opera: *Lost on Mars*, is an imagined opera, the story of which tells of a young girl displaced from her homeland and people due to the modern day refugee crises. Mars is a metaphor for the isolation the young girl feels in her new environment.

The Aria contains elements of both nature and indigenous life. Within the Libretto (included in the appendices) Luke gave very vivid descriptions of the landscape and the feelings of the girl, so I had to think quite specifically about how one environment could be represented in different ways. For example, the bleak desert at the beginning remains the same setting at the end, but at the end there is hope attached to what the girl is experiencing. I represented this by using different chords, chords that for me, initially, sound unforgiving and barren, and represent the alien planet of Mars. But at the end, in the same location, the chord has a warmth.

I have also included elements of magic and ritual quite literally by incorporating drumming between mm. 28 and 74, and also in mm. 41 a viola plays a little motif which is intended to suggest the call of an elder (which is written into the Libretto where the girl has a flashback).

The Aria also attempts to convey aspects of war, in particular between mm. 36 and 41, with the glissandi Celli and Violas representing war planes, whilst the section of repeated violently clashing string chords evokes the unbearable heat of the sun.

There are two recordings within folder 2. In the full version, I am playing all the instruments and the mezzo-soprano is replaced with a viola. In the piano-reduction version, the piece is performed by members of Music Theatre Wales.

Katherine Betteridge

Lost on Mars

For

Mezzo Soprano
Timpani
Percussion (bass drum, sus cymbal)
2 Djembe
Gourd Maracas
3 Horn in F
Trombone
Bass Trombone
Strings (4.4.3.3.1)

Duration: ca. 5 minutes

All instruments are notated at sounding pitch

Libretto: Luke Moore

Programme Note

This Aria was written as a commission for a workshop with Music Theatre Wales in June 2018. The piece was written in collaboration with Luke Moore, a creative writing PhD student who specialises in screen writing. The opera: *Lost on Mars*, is an imagined opera, the story of which tells of a young girl displaced from her homeland and people due to the modern day refugee crises. Mars is a metaphor for the isolation the young girl feels in her new environment.

Lost on Mars

Libretto: Luke Moore

Music: Katherine Betteridge

♩ = 50

Mezzo Soprano

mp

Sweet dark ness

please don't leave me now.

Stars

Timpani

Percussion

Djembe 1

Djembe 2

Gourd Maracas

Horn in F 1

Horn in F 2

Horn in F 3

Trombone 1

Bass Trombone

♩ = 50

non vib.

molto sul pont.

Violin I

pp

Violin II

non vib.

pp

molto sul pont.

Viola

non vib.

pp

molto sul pont.

Violoncello

Double Bass

11

M.S.: of hea- ven come soothe my soul. Send guid ing an-gels, lead me home Through star-lit fields

mf *mp*

Timp.

Perc.

Djembe 1

Djembe 2

G.M.

Hn. 1

Hn. 2

Hn.3

Tbn.

B. Tbn.

move to nat. over cresc. nat. vib.

Vln. I: *mp* *p* slowly, over diminuendo, move to molto sul pont. non vib.

Vln. II: move to nat. over cresc. nat. vib. *mp* *pp* slowly, over diminuendo, move to molto sul pont. non vib.

Vla.: move to nat. over cresc. nat. *mp* *pp*

Vc.

Db.

18

M.S. ___ my com-pass wanes | In morn-ing light, I feel the flame. | My soul is burned, My bo dy lame___

Timp.

Perc.

Djembe 1

Djembe 2

G.M.

Hn. 1

Hn. 2

Hn.3

Tbn.

B. Tbn.

non vib.

Vln. I *mp* *gliss.*

nat.
(non vib.)

Vln. II *gliss.*

nat.
(non vib.)

Vla. *gliss.* *gliss.*

Vc.

Db.

25

M.S.

whispered colla voce

♩ = 120

"Who will tend my wounds?"
Who shall pluck my thorn?

Timp.

♩ = 120

Perc.

bottom = bass
middle = open
top = slap

○ = open slap
+ = closed slap

Djembe 1

pp

mf

Djembe 2

f

G.M.

f

Hn. 1

Hn. 2

Hn.3

Tbn.

B. Tbn.

Slowly, over diminuendo, move to molto sul pont. non vib.

colla voce molto sul pont

♩ = 120

Vln. I

ppp

Slowly, over diminuendo, move to molto sul pont. non vib.

colla voce molto sul pont

Vln. II

ppp

Slowly, over diminuendo, move to molto sul pont. non vib.

colla voce molto sul pont

Vla.

ppp

Vc.

Db.

34

M.S.

Timp.

bass drum
l.v.

sempre

Perc.

f

Djembe 1

Djembe 2

G.M.

Hn. 1

Hn. 2

Hn.3

Tbn.

B. Tbn.

Vln. I

Vln. II

Vla.

IV

gliss.

mf

All celli start gliss at different points in bars 36 and 37,
and on different notes, but roughly within the range stated.

Vc.

gliss.

mf

Db.

40

M.S.

Timp.

Perc.

Djembe 1

Use left hand to dampen the skin and to raise and lower pitch by sliding from edge of drum head across middle to other side of drum and back again (whilst drumming with right hand).

Djembe 2

G.M.

Hn. 1

Hn. 2

Hn.3

Tbn.

B. Tbn.

Vln. I

fff

Vln. II

fff

tutti

solo
just use one finger
(allow slides between
all the notes)

3

Vla.

gliss.

f

fff

Vc.

Db.

46

M.S.

extremely agitated

f

Oh Pa - pa

Timp.

Suspended cymbal

p *ff*

Perc.

Djembe 1

Djembe 2

G.M.

Hn. 1

Hn. 2

Hn.3

Tbn.

B. Tbn.

Vln. I

Vln. II

Vla.

pizz.

Vc.

f

pizz.

Db.

f

52

M.S.

3

Mo-ther hear my call!

mf

Don't leave me now,

Timp.

mp

ff

Perc.

Djembe 1

Djembe 2

G.M.

Hn. 1

Hn. 2

Hn.3

Tbn.

B. Tbn.

Vln. I

Vln. II

Vla.

Vc.

Db.

58

M.S.

f

Don't let me fall

more sadly

mp

lend me your strength,

Timp.

mp *ff*

p *mp*

Perc.

Djembe 1

Djembe 2

G.M.

Hn. 1

Hn. 2

Hn.3

Tbn.

B. Tbn.

Vln. I

Vln. II

Vla.

Vc.

Db.

65

rit.
colla voce
defeated

M.S.: give me your love

Timp.: ff

Perc.: ff

Djembe 1

Djembe 2

G.M.: mf

Hn. 1: fff

Hn. 2: fff

Hn.3: fff

Tbn.: fff

B. Tbn.: fff

Vln. I: fff

Vln. II: fff

Vla.: fff

Vc.

Db.

72

♩ = 100

M.S.

mp

Who will wipe my tears?

♩ = 100

Timp.

Perc.

Djembe 1

Djembe 2

G.M.

Hn. 1

mf

Hn. 2

Hn.3

mf

Tbn.

mf

B. Tbn.

mf

♩ = 100

Vln. I

p

Vln. II

p

Vla.

p

Vc.

Db.

82

M.S.

Who shall take me home?

p

My god my god why have

Timp.

pp

Perc.

Djembe 1

Djembe 2

G.M.

Hn. 1

mf

Hn. 2

mf

Hn.3

Tbn.

B. Tbn.

Vln. I

Vln. II

Vla.

Vc.

arco

mf

Db.

arco

mf

92

M.S.

you for-sa-ken me?

3

Timp.

Perc.

Djembe 1

Djembe 2

G.M.

Hn. 1

Hn. 2

Hn.3

Tbn.

B. Tbn.

Vln. I

p

Vln. II

p

Vla.

p

Vc.

Db.

99

M.S.

mp

My god my god

rit.

please lead me home

Timp.

Perc.

Djembe 1

Djembe 2

G.M.

Hn. 1

Hn. 2

Hn.3

Tbn.

B. Tbn.

Vln. I

pp

Vln. II

pp

Vla.

pp

Vc.

Db.

9. *Turas* (2018)

14 minutes long

Turas was the final piece of my research, completed in December 2018. The fish included in the recording are able to sing (over 800 species can sing) by rubbing muscles together in their bodies or by squeezing air through their swim bladders. Fish can create a variety of sounds, some of which resemble very long low drones, whilst others emit staccato-like notes. I made contact with a Professor Robert McCauley, a marine biologist from the Centre of Marine Science and Technology at Curtin University, Western Australia, as I had discovered he had made lots of recordings of singing fish. He kindly sent me a variety of recordings that he was happy for me to use in my composition. I have included the singing fish within the electronics, along with my own hydrophone recordings.

Many of the sounds of the metal objects or fish have not been manipulated or treated and remain as they sounded underwater. When I listened back to the recordings, I was very surprised to find that the water, in particular the river, (as opposed to the recordings done in a lake or in the sea) had distorted many of the sounds, creating in the process interesting and unusual versions of the originals. I had expected the sounds to be either muffled by the water or to be virtually inaudible, but I felt they had absorbed the energy of water itself, causing them to mutate considerably. Some of the sounds, however, have been modified by being stretched or played in reverse, and this will be apparent in the recording of the piece. In the vocal recordings, the actual sounds I made were two to three seconds in length. This was modified in the final recording and I stretched the voices across long sections of the full 14-minute piece – the first 7 minutes is an example of this vocal stretch. The river in the background adds a rumbling quality, which sounds to me like the sound the sea continuously makes. This rumbling sound is magnified by stretching the recording over time, and to my ears, the voices have consequently taken on an otherworldly quality. I could have recorded some of the sounds in a studio and electronically manipulated them to sound as I *expected* them to sound underwater, but this would have resulted in nothing like the effect that real water has had. I feel that it is these natural sounds and the presence of the real water in the recordings that helped shape

the composition as a whole, as the score essentially grew from the recordings. Within the electronics are also recordings of wine glasses with varying amounts of water in them to create a spectrum of notes.

The poem I recite in the piece is by Rainer Maria Rilke as it expresses how the darkness has many meanings, and can lead to deep and meaningful growth. It also seemed relevant to the feelings I had experienced when in the company of the gigantic sharks.

I wrote two earlier versions of *Turas* before starting on the final one. Both of these were written by trying to work out the piece intellectually. Over a period of many weeks I attempted to fit together the fish song and hydrophone recordings and write notes that complemented the sounds, but this left me feeling extremely frustrated. As a result I decided to strip the work back to basics and drew a visual sketch of the seabed with a plan indicating the most appropriate locations for the various orchestral instruments:

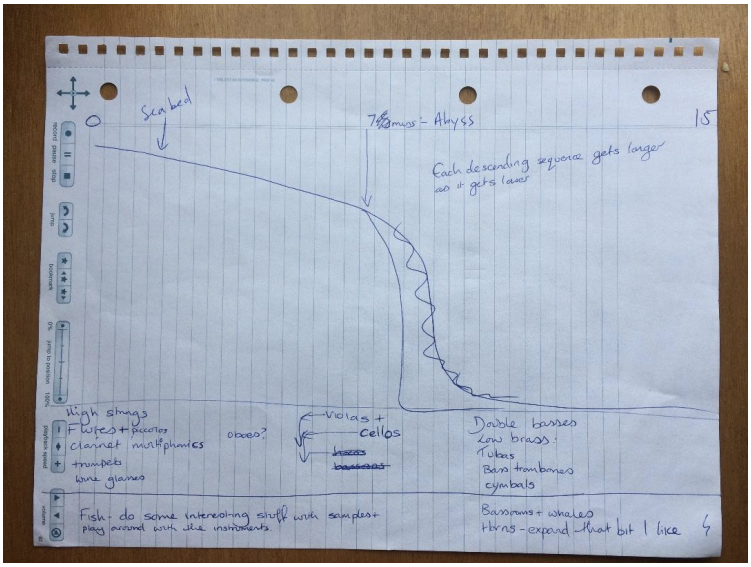


Figure 1: Sketch of the topography of the seabed, used to decide where instrumentation should be placed in the composition.

I then improvised on both the violin and the computer with synthesized orchestral instruments alongside the fish song and hydrophone recordings. It no longer felt as though I was forcing myself to compose, but rather as though the process was

happening spontaneously, and the entire 14 minutes of the final piece of music came together in two days.

In *Turas*, I have used both actual and suggestive sounds to represent a variety of water-related subjects. Throughout the first half of the piece, between mm. 47 – 82, the woodwind and brass copy the sounds of fish singing from the electronics. They either copy real fish sounds, imitating the fish in a call and response manner, or they play sounds and patterns I have created that sound similar to the real fish. I also copied a sperm whale song in quite a literal way in the piece – the French horn does this imitation the first time in mm. 140, and the bassoon takes over between mm. 143 and 148. Less literal and more suggestive is the glockenspiel between mm. 14 and 32, which is intended to represent sunlight on the surface of the water, but as viewed from underneath. Between mm. 14 – 32 first the clarinet then the flute play multiphonics. I was careful in my choice of multiphonics as I wanted to create an eerie and ethereal sound, representative of the underwater world – unfamiliar territory to humans, alien but very beautiful. Some of the flute multiphonics are taken from Will Offerman's *Etude 5*, as these combinations of notes have a particular shimmering quality.

The structure of *Turas* is the sea floor. The piece starts in the shallows with high strings representing the lush, rich, colourful underwater gardens of the shallow lagoons in the Cairns of Coll in the Inner Hebrides, Northern Scotland. The lagoons are full of different species of fish and beautiful wildlife and plant life.

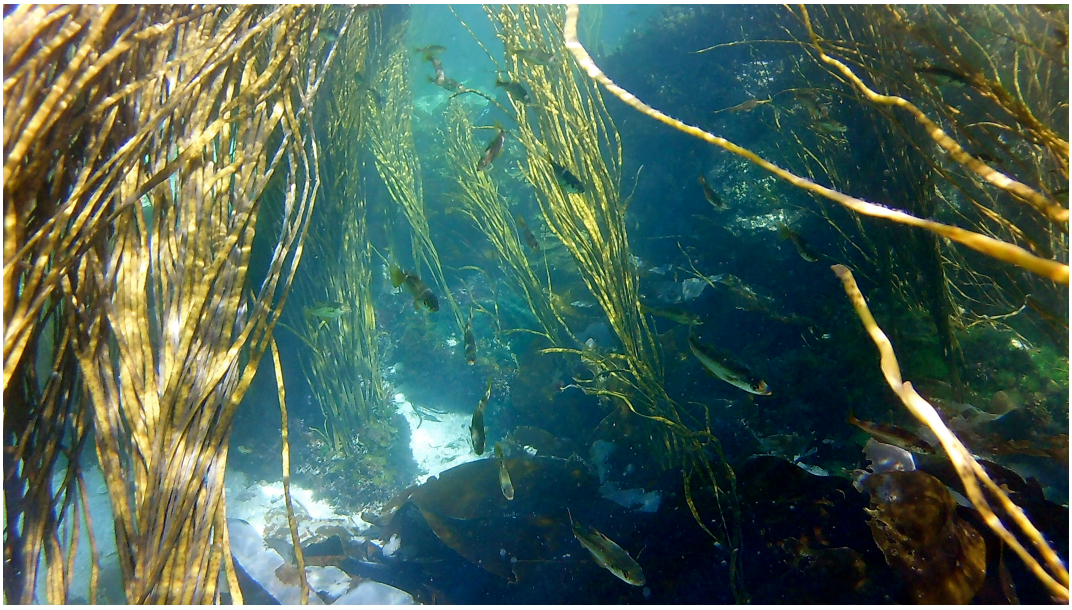


Figure 2: Photo taken by myself in the lagoons at the Cairns of Coll, Inner Hebrides, Scotland, 2018

As the piece progresses, the water gets ever deeper, emulated by both lower instruments and gradual movement downwards in pitch from the higher instruments, and in the run up to mm. 114, the acoustic instruments and the voice in the electronics begin to peter out one by one. This is intended to represent the animal and plant life becoming sparser until all that remains being a rumble in the electronics. This represents the edge of an abyss (I had the drop off into the Mariana Trench in the Pacific in mind – a 7 mile vertical descent into what is known as the Challenger Deep – the deepest place of any ocean in the world).

After the recitation of the Rainer Maria Rilke poem, the crescendo horns and tuba in mm. 143 – 155 are intended to suggest large dark shapes of animals moving in the shadows, barely visible and just out of reach. The next few minutes of music represent the otherworldly, and sometimes grotesque, deep-sea fish, and the un-explored (by humans) plant and animal life in the deepest parts of the ocean. These are expressed either by orchestral instruments or by additional hydrophonic recordings, this time of metal objects being struck or dropped underwater. The swells in the instrumental lines throughout the music, first on the strings in the first half (mm. 33 onwards) and next on the timpani in the second half straight after the poem represent the currents and swells and movement of the sea.

In the recording located in folder 2, all parts are performed by myself. This was the initial improvisation, although I have refined changed some of the parts since then.

Katherine Betteridge

Turas

(Journey)

For

4 Flutes (4th doubling Piccolo)
Oboe
4 Clarinets in Bb (4th doubling Bass)
Bassoon
Contrabassoon
4 Horns
3 Trumpets in Bb
2 Trombones
Bass Trombone
2 Tubas
Timpani
Percussion
Harp
Strings (12.12.8.8.6)

Duration: ca. 14 minutes

All instruments are notated at sounding pitch except for the usual octave transpositions

You darkness, of whom I am born
I love you more than the flame that limits the world
To the circle it illumines,
And excludes all the rest
But the dark embraces everything
Shapes and shadows
Creatures and me
People, nations just as they are
And it is possible a great presence is moving near me
I have faith in night

Rainer Maria Rilke

Programme note

Turas means 'Journey' in Scottish Gaelic and is an abbreviation of Turas a-steach don Dhoimhneachd which means Journey into the Depths. The composition relates to a journey into the depths of the sea, but it also refers to an inner journey, a journey into the depths of the human shadow and the soul.

The structure of the piece is based on the topography of the seabed, beginning in the shallows, first exploring the stunning and rich underwater scenery of lagoons and shallow waters, encountering a multitude of fish and other colourful wildlife, but gradually getting deeper and deeper and more sparse. At roughly the halfway point in the piece the music reaches an abyss: an underwater cliff face dropping vertically down for several miles. From then on, deeper and larger sea creatures are encountered, such as whales and sharks moving in the shadows beneath.

The electronics contain recordings of singing fish, and also recordings I made with a hydrophone in a river. The recordings contain passages of my own voice underwater,
metal objects being hit or dropped, and also a recorder being played half in the water. There are also recordings just before the end of the piece of a violin being played just above the water but recorded with the hydrophone from underneath.

The piece is inspired by, in particular, basking sharks, who I had the pleasure of swimming with in August 2018 in Scotland. I have dreamt of (dangerous) sharks and deep water my entire life, in terrifying dreams. They seem to be deeply archetypal images embedded in my unconscious.

Performance Directions

The strings are divided into sub-sections at many points throughout the music.
Unless otherwise stated (e.g. “1 solo”), please try to divide parts equally between players.

Electronics

One accompanying wav. track with electronics and one mp3 click track for the conductor is provided.

A minimum of 2 speakers is required, however, more surrounding the audience is preferable. The wav. track is to be played from start to finish. Due to this, the orchestra will need to be metronomically precise so the click track will be necessary. Throughout the click track the rehearsal marks are read out, and there is a one bar count in at the beginning.

It might be easiest for rehearsal and performance purposes for the accompanying electronics wav. track to be played via pro tools (for access to bar numbers). Volumes should not need to be adjusted throughout.

Percussion

Percussion 1: Bass Drum
Percussion 2: Glockenspiel, Suspended Cymbal

Turas

Katherine Betteridge

♩ = 60

Press play

1 minute

A

Electronics

Flute 1

Flute 2

Flute 3

Flute 4

Oboe 1

These multiphonics need to be heard over the strings, however, they do not want to sound forced or actually loud, so the strings will need to adjust as necessary.

Clarinet 1 in B♭

Clarinet 2 in B♭

Clarinet 3 in B♭

Clarinet 4 in B♭

To B. Cl.

Bassoon 1

Contrabassoon

Horn 1 in F

Horn 2 in F

Horn 3 in F

Horn 4 in F

Trumpet 1 in B♭

Trumpet 2 in B♭

Trumpet 3 in B♭

Trombone 1

Trombone 2

Bass Trombone

Tuba 1

Tuba 2

A

Timpani

Percussion 1

Percussion 2

Glockenspiel

Play in an "unpronounced" way. This line is very much in the background - it represents the light on the surface of the water

Harp

l.v. sempre

Ensure clarinets and flutes can be heard

♩ = 60

Violin 1a

Violin 1b

Violin 1c

Violin 2a

Violin 2b

Violin 2c

Ensure clarinets and flutes can be heard

Viola (1)

Viola 2

Viola 3

Viola 4

Viola 5

Viola 6

Viola 7

Viola 8

Violoncello (1)

Violoncello 2

Violoncello 3

Violoncello 4

Extreme sul pont until bar 35 - really draw out and make the most of the harmonics and the overtones

Double Bass (1)

Double Bass 2

Double Bass 3

These multiphonics need to be heard over the strings, however, they do not want to sound forced or actually loud, so the strings will need to adjust if necessary. Please bring the louder multiphonics down in volume to match the quieter ones. The desired overall effect is to have a quiet "shimmering" quality. These are a musical quote from Will Offerman's Etude 5.

22

2 mins

B

Electonics.

Fl. 1

Fl. 2

Fl. 3

Fl. 4

to Picc. Piccolo

Ob. 1

Cl. 1

Cl. 2

Cl. 3

Cl. 4

Bsn. 1

Cbsn.

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tpt.1

Tpt. 2

Tpt. 3

Tbn. 1

Tbn. 2

B. Tbn.

Tba. 1

Tba. 2

B

Timp.

Perc. 1

Glock.

Hp.

(l.v.)

Vln. 1a

Vln. 1b

Vln. 1c

Vln. 2a

Vln. 2b

Vln. 2c

throughout the following passage until bar 46, each individual player to create occasional swells in volume autonomously from other players - swells to take place over approx 2 secs, only swelling to mf volume then back to mp

1 solo

Vla.a

Vla.b

Vla.c

Vla.d

Vla.e

Vla.f

Vla.g

Vla.h

Vc.

Vc.

Vc.

Vc.

Db.

Db.

Db.

41

3 mins

C

First fish sounds can be heard (3:15)

Electonics.

Fl. 1

Fl. 2

Fl. 3

Picc.

Ob. 1

Cl. 1

Cl. 2

Cl. 3

Bass Clarinet in B♭

Cl. 4

Bsn. 1

Cbsn.

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tpt.1

Tpt. 2

Tpt. 3

Tbn. 1

Tbn. 2

B. Tbn.

Tba. 1

Tba. 2

C

Timp.

Perc. 1

Glock.

Hp.

Vln. 1a

Vln. 1b

Vln. 1c

Vln. 2a

Vln. 2b

Vln. 2c

"explorer's theme" - needs to stand out (no longer solo)

Vla.a

Vla.b

no longer solo

Vla.c

Vla.d

Vla.e

no longer solo

Vla.f

no longer solo

1 solo

Vla.g

no longer solo

1 solo

Vla.h

Vc.

Vc.

Vc.

Vc.

Db.

Db.

Db.

4 mins

D

Electonics.

Fl. 1
Fl. 2
Fl. 3
Picc.
Ob. 1
Cl. 1
Cl. 2
Cl. 3
B. Cl.
Bsn. 1
Cbsn.

to Fl.

Clarinet in B♭

Hn. 1
Hn. 2
Hn. 3
Hn. 4

Tpt.1
Tpt. 2
Tpt. 3

Tbn. 1
Tbn. 2
B. Tbn.
Tba. 1
Tba. 2

D

Timp.
Perc. 1
Glock.

Hp.

(div.)

Vln. 1a
Vln. 1b
Vln. 1c
Vln. 2a
Vln. 2b
Vln. 2c
Vla.a
Vla.b
Vla.c
Vla.d
Vla.e
Vla.f
Vla.g
Vla.h

throughout this passage each individual
player to create occasional swells of volume independently
of one another, only swell to mp volume then back to p

Vc.
Vc.
Vc.
Vc.
Db.
Db.
Db.

67

E

5 mins

Electonics.

Fl. 1 — *mf* — *p* — *mp* — *pp* — *cresc.* — *f* — *dim.*

Fl. 2 — *p* — *mp*

Fl. 3 — *mp* — *pp* — Piccolo

Fl. — *mf* — to Picc.

Ob. 1 — *mp* — *pp* — *f* — *mp*

Cl. 1 — *mp*

Cl. 2 — *mp*

Cl. 3 — *mp*

Cl. 4 — *mp* — to B. Cl.

Bass Clarinet in B♭

Bsn. 1 — *mp*

Cbsn.

Hn. 1 — *p*

Hn. 2 — *p* — *mp*

Hn. 3 — *p* — *mp*

Hn. 4 — *p* — *mp*

Tpt.1 — *mp*

Tpt. 2 — *mp*

Tpt. 3 — *mp*

Tbn. 1 — *mp*

Tbn. 2 — *mp*

B. Tbn.

Tba. 1 — *mp*

Tba. 2

E

Timp.

Perc. 1

Glock.

Hp. — 8va — *f*

Vln. 1a — (div.) — *p* — 1 solo (leader) — (div.) — *cresc.*

Vln. 1b — *pp* — (div.) — *p*

Vln. 1c — *pp*

Vln. 2a — *pp*

Vln. 2b — *p*

Vln. 2c

Vla.a

Vla.b

Vla.c

Vla.d

Vla.e

Vla.f

Vla.g

Vla.h

Vc.

Vc.

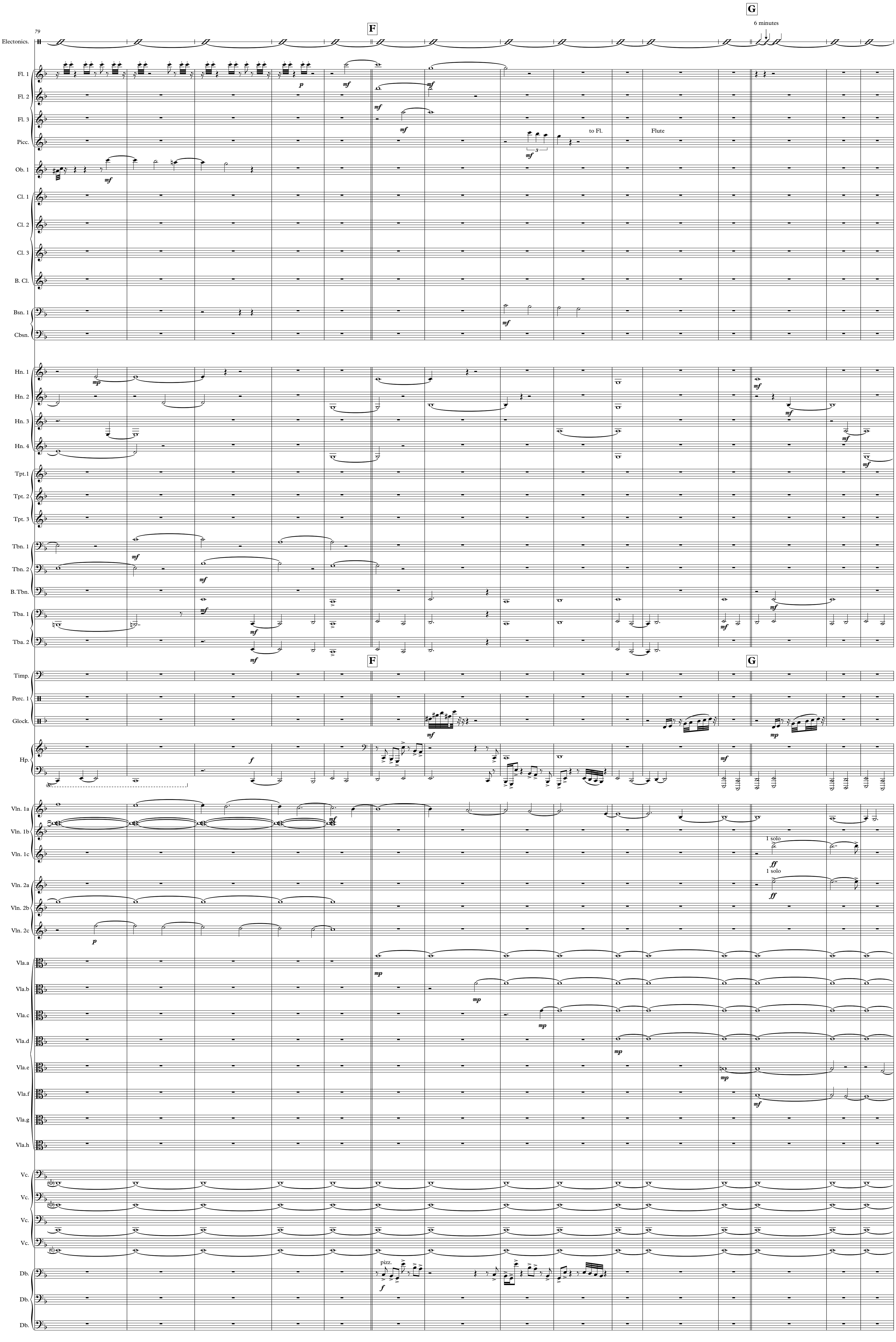
Vc.

Vc.

Db.

Db.

Db.


79
F
G
6 minutes
Electonics.
Fl. 1
Fl. 2
Fl. 3
Picc.
to Fl.
Flute
Ob. 1
Cl. 1
Cl. 2
Cl. 3
B. Cl.
Bsn. 1
Cbsn.
Hn. 1
Hn. 2
Hn. 3
Hn. 4
Tpt.1
Tpt. 2
Tpt. 3
Tbn. 1
Tbn. 2
B. Tbn.
Tba. 1
Tba. 2
Timp.
Perc. 1
Glock.
Hp.
Vln. 1a
Vln. 1b
Vln. 1c
1 solo
Vln. 2a
Vln. 2b
Vln. 2c
Vla.a
Vla.b
Vla.c
Vla.d
Vla.e
Vla.f
Vla.g
Vla.h
Vc.
Db.
pizz.

94

Electonics.

Fl. 1
1 solo
ff

Fl. 2

Fl. 3

Fl.

Ob. 1
1 solo
ff

Cl. 1

Cl. 2

Cl. 3

B. Cl.

Bsn. 1

Cbsn.
mp
p

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tpt.1

Tpt. 2

Tpt. 3

Tbn. 1

Tbn. 2

B. Tbn.
mf
mp
p

Tba. 1

Tba. 2

Timp.

Perc. 1

Glock.
To Cym.
mf

Hp.

Vln. 1a
1 solo
ff

Vln. 1b

Vln. 1c

Vln. 2a
1 solo
ff

Vln. 2b

Vln. 2c

Vla.a

Vla.b

Vla.c

Vla.d

Vla.e

Vla.f
mf

Vla.g

Vla.h
mf

Vc.

Vc.

Vc.

Vc.
arco

Db.
mf
mp
p

Db.
mp
p

Db.
p

110

Drop into abyss (7:34)

"You, Darkness" (7:46)

2nd and final "night" (8:52)

Electonics.

Fl. 1
Fl. 2
Fl. 3
Fl.
Ob. 1
Cl. 1
Cl. 2
Cl. 3
B. Cl.
Bsn. 1
Cbsn.

Hn. 1
Hn. 2
Hn. 3
Hn. 4

Tpt.1
Tpt. 2
Tpt. 3

Tbn. 1
Tbn. 2
B. Tbn.
Tba. 1
Tba. 2

Timp.
Perc. 1
Glock.

Hp.

Vln. 1a
Vln. 1b
Vln. 1c
Vln. 2a
Vln. 2b
Vln. 2c

Vla.a
Vla.b
Vla.c
Vla.d
Vla.e
Vla.f
Vla.g
Vla.h

Vc.
Vc.
Vc.
Vc.

Db.
Db.
Db.

H

I

J

After the word "night" in the electronics, there is a metallic sound followed by a splash, then 6 electronic sounds followed by nothing. The intention is that the timpani starts immediately after the electronic sounds with no gap.

mp

2nd and final "night" (8:52)

2nd and final "night" (8:52)

2nd and final "night" (8:52)

140

K

L

Electonics.

Fl. 1

Fl. 2

Fl. 3

Fl.

Ob. 1

Cl. 1

Cl. 2

Cl. 3

B. Cl.

Bsn. 1

Cbsn.

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tpt.1

Tpt. 2

Tpt. 3

Tbn. 1

Tbn. 2

B. Tbn.

Tba. 1

Tba. 2

K

L

Timp.

Perc. 1

Percussion

Glock.

Hp.

Vln. 1a

Vln. 1b

Vln. 1c

Vln. 2a

Vln. 2b

Vln. 2c

Vla.a

Vla.b

Vla.c

Vla.d

Vla.e

Vla.f

Vla.g

Vla.h

Vc.

Vc.

Vc.

Vc.

Db.

Db.

Db.

gliss.

cresc.

pizz.

arco

160

10:44

M

11:20

N

Electonics.

Fl. 1
Fl. 2
Fl. 3
Fl.
Ob. 1
Cl. 1
Cl. 2
Cl. 3
B. Cl.
Bsn. 1
Cbsn.

Hn. 1
Hn. 2
Hn. 3
Hn. 4
Tpt.1
Tpt. 2
Tpt. 3
Tbn. 1
Tbn. 2
B. Tbn.
Tba. 1
Tba. 2

M

N

Timp.
Perc. 1
Cym.

Suspended Cymbal

Bass Drum

Hp.

Vln. 1a
Vln. 1b
Vln. 1c
Vln. 2a
Vln. 2b
Vln. 2c

(slide up from c)

IV

Vla.a
Vla.b
Vla.c
Vla.d
Vla.e
Vla.f
Vla.g
Vla.h

Vc.
Vc.
Vc.
Vc.

Db.
Db.
Db.

175

O

12:23

Electonics.

Fl. 1
Fl. 2
Fl. 3
Fl.
Ob. 1
Cl. 1
Cl. 2
Cl. 3
B. Cl.
Bsn. 1
Cbsn.

Cl.

mp

Hn. 1
Hn. 2
Hn. 3
Hn. 4
Tpt.1
Tpt. 2
Tpt. 3
Tbn. 1
Tbn. 2
B. Tbn.
Tba. 1
Tba. 2

O

Timp.
B. D.
Cym.

mp

mf

Hp.

Vln. 1a
Vln. 1b
Vln. 1c
Vln. 2a
Vln. 2b
Vln. 2c
Vla.a
Vla.b
Vla.c
Vla.d
Vla.e
Vla.f
Vla.g
Vla.h
Vc.
Vc.
Vc.
Vc.
Db.
Db.
Db.

1 solo

mp

1 solo

mp

1 solo

mp

no longer solo

187

P

Electonics.

The intention from here to the end is to have a unity of sound between wind instruments, without any obvious beginnings or ends of notes and with no instrument standing out. However, breathe when necessary but do not articulate your re-entry

Fl. 1 — *mp*

Fl. 2 — *mp*

Fl. 3 — *mp*

Fl. — *mp*

Ob. 1 — *mp*

Cl. 1 — *mp*

Cl. 2 — *mp*

Cl. 3 — *mp*

B. Cl. — *mp*

Bsn. 1 — *mp*

Cbsn.

Hn. 1

Hn. 2

Hn. 3

Hn. 4

Tpt.1

Tpt. 2

Tpt. 3

Tbn. 1

Tbn. 2

B. Tbn.

Tba. 1

Tba. 2

P

Timp.

B. D.

Cym.

Hp.

"explorer's theme" - needs to stand out — *mf*

Vln. 1a

Vln. 1b

Vln. 1c

Vln. 2a

Vln. 2b

Vln. 2c

Vla.a — *mf*

Vla.b — *gliss.*

"explorer's theme" - needs to stand out — *mf*

no longer solo

Vla.c — *mp* no longer solo

"explorer's theme" - needs to stand out — *mf*

Vla.d

"explorer's theme" - needs to stand out — *mf*

Vla.e — *mf*

mp

Vla.f

Vla.g

Vla.h

Vc. — *mf*

Vc.

Vc.

Vc.

"explorer's theme" - needs to stand out (arco) — *mf*

Db.

Db.

Db.

Q

199

three electronic violin sounds (starts 13:31)

all acoustic instruments finish - but keep electronics going until they fade out

Electronics.

Fl. 1 — Fl. 2 — Fl. 3 — Fl. — Ob. 1 — Cl. 1 — Cl. 2 — Cl. 3 — B. Cl. — Bsn. 1 — Cbsn.

Hn. 1 — Hn. 2 — Hn. 3 — Hn. 4

The intention here is to have a unity of sound between brass, without any obvious beginnings or ends of notes and with no instrument standing out. However, breathe when necessary but do not articulate your re-entry

Tpt.1 — Tpt. 2 — Tpt. 3 — Tbn. 1 — Tbn. 2 — B. Tbn. — Tba. 1 — Tba. 2

Q

Timp. — B. D. — Cym. — Hp.

Vln. 1a — Vln. 1b — Vln. 1c — Vln. 2a — Vln. 2b — Vln. 2c — Vla.a — Vla.b — Vla.c — Vla.d — Vla.e — Vla.f — Vla.g — Vla.h — Vc. — Vc. — Vc. — Vc. — Db. — Db. — Db.

10. *Stjörnublik* for Piano and Clarinet in Bb (2014)

4 minutes long

This first version of *Stjörnublik* was written for a multimedia event called *Lie Still Sleep Becalmed,* held at the University of Bangor, and was written for the clarinettist, Hephzibah Leaf. The piece makes use of a range of extended techniques, one of which involves the clarinettist playing notes directly into the inside of the piano. This leads to the piano responding sympathetically by echoing the notes, plus harmonics. The clarinet plays many microtonal slow trills and multiphonics throughout the piece, intended to evoke the twinkling effect of starlight, and the use of the diminuendos is intended to create the ethereal-like emptiness of space. The pianist is often required to pluck the piano strings for more space-like ethereal sounds, or brush the lower strings for deep rumbling sounds.

Stjörnublik plays with boundaries, mainly the boundary between the piano and clarinet. The boundary between the two instruments is blurred as the clarinet *uses* the piano as a resonating chamber throughout the entire piece. The clarinettist stands near the piano and often plays directly into it, and the two instruments engage more closely than usual in performance. Additionally, the piece requires the pianist to cross the boundary of the edges of the keys and play a large part of the piece on the internal strings.

In the recording located in folder 2, the recording was made in a studio and the performers are:
Clarinet: Hephzibah Leaf
Piano: Gwawr Ifan

Katherine Betteridge

Stjörnublik

For

Clarinet in Bb and Piano

Duration: ca.4 minutes

All instruments are notated at sounding pitch

Painting by Katherine Betteridge

For Hephzi

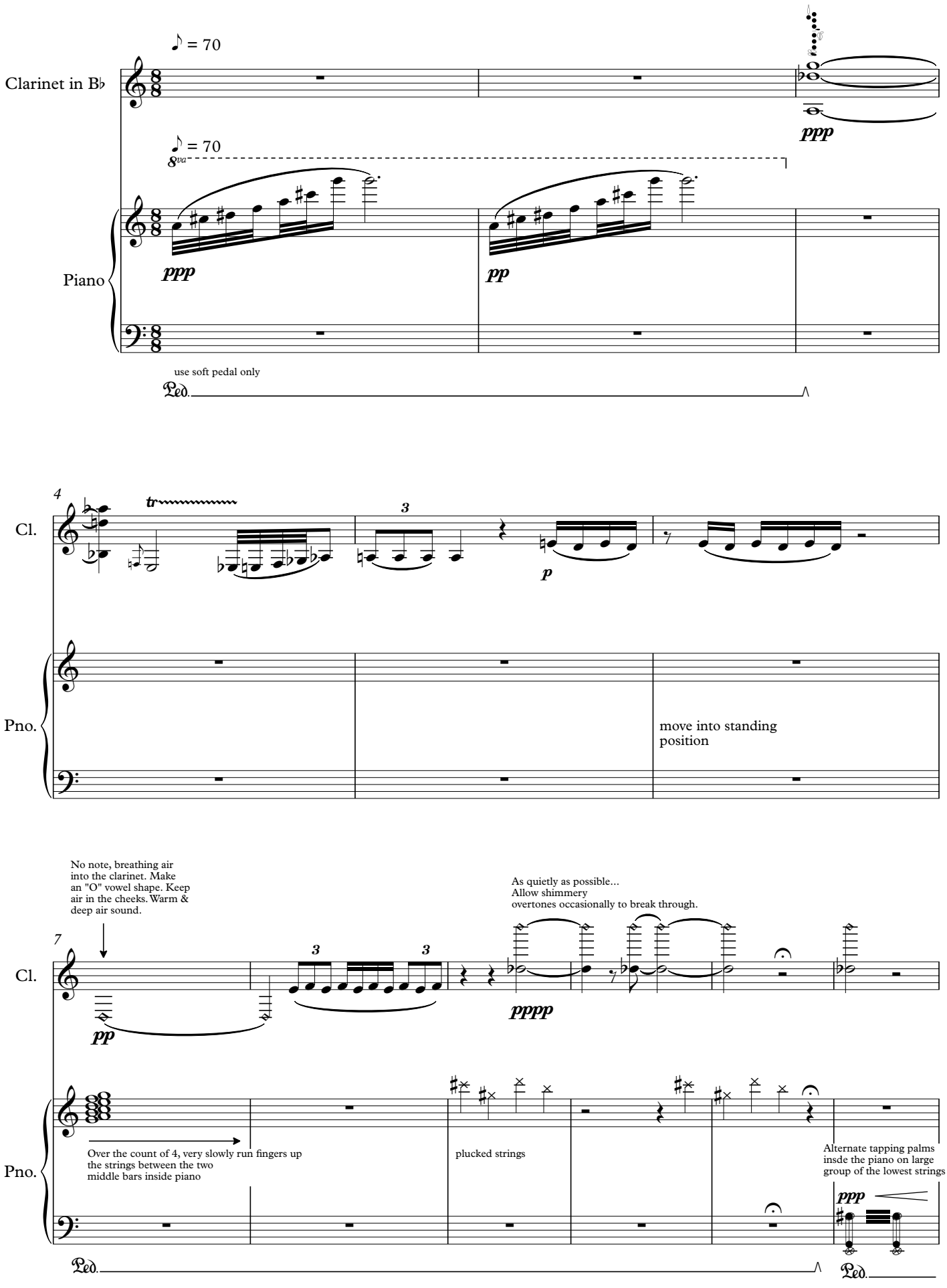
Programme Note

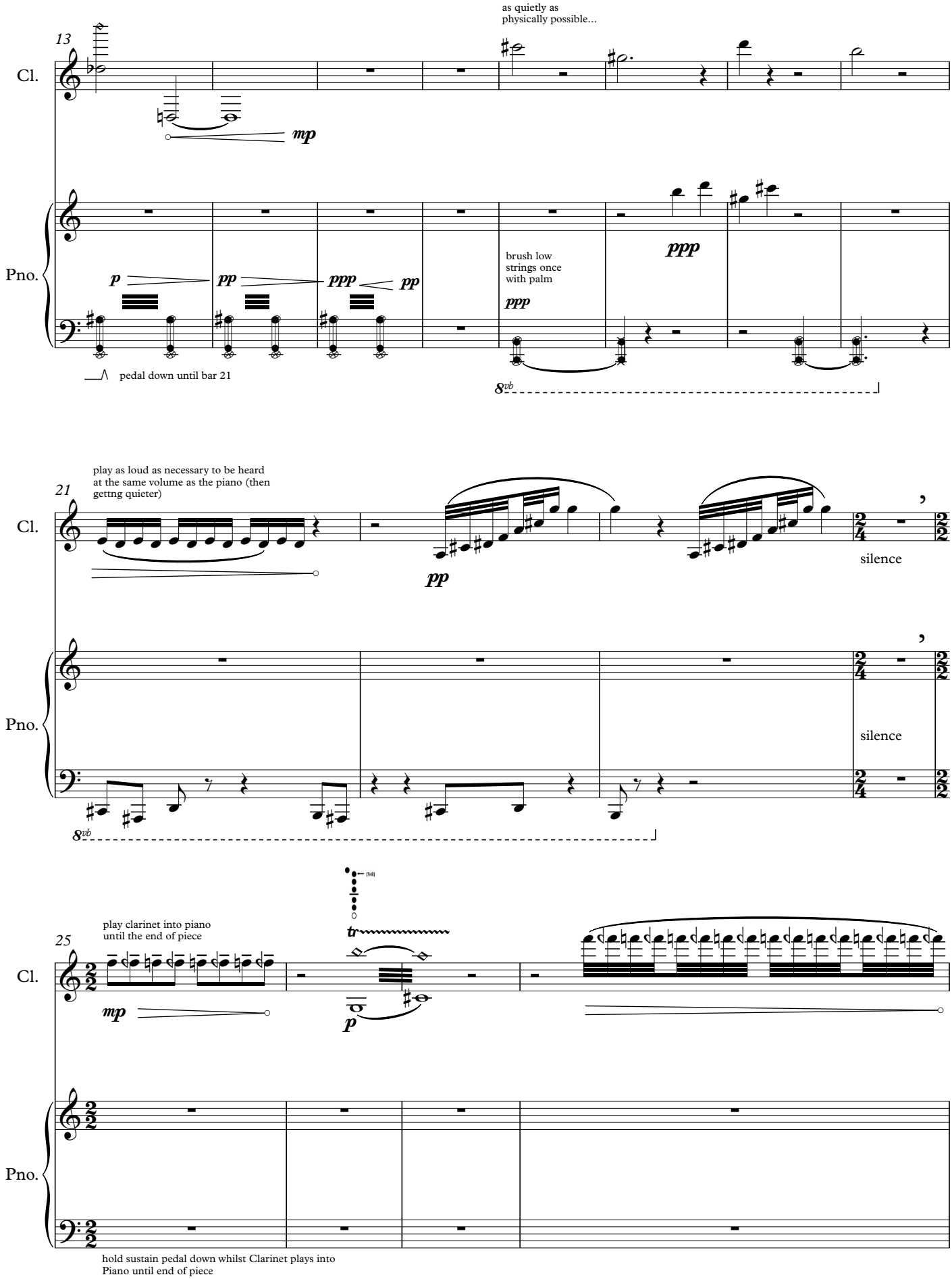
“Stjörnublik” is Icelandic for "starlight". There are many words in Icelandic for starlight, all with slightly different meanings. This particular word refers to the twinkling effect that stars appear to have. *Stjörnublik* was inspired by a trip I made to Iceland one December, when the nights were extremely long, and the starlight and cold snowy environment very magical.

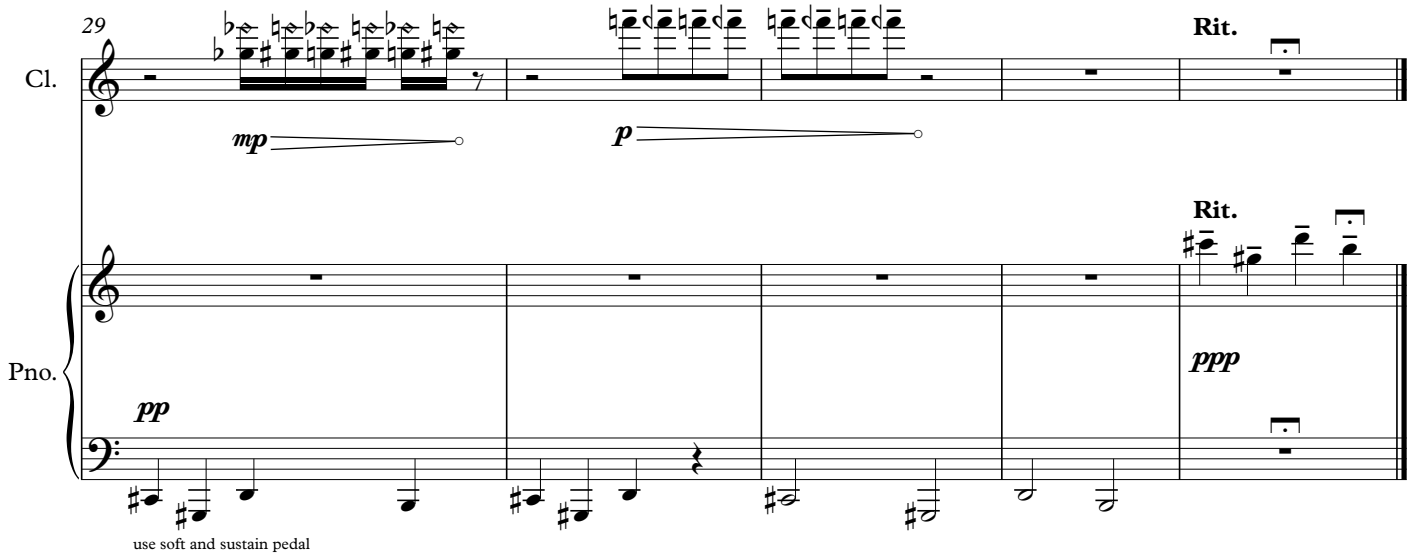
This piece is exceptionally quiet.

Stjörnublik

Katherine Betteridge




13
Cl.
Pno.
mp
as quietly as
physically possible...
p
pp
ppp
pp
brush low
strings once
with palm
ppp
ppp
pedal down until bar 21
8vb
21
play as loud as necessary to be heard
at the same volume as the piano (then
gettng quieter)
pp
silence
silence
8vb
25
play clarinet into piano
until the end of piece
mp
tr
p
hold sustain pedal down whilst Clarinet plays into
Piano until end of piece


29
Cl.
Pno.
mp
p
Rit.
Rit.
pp
ppp
use soft and sustain pedal

11. *Stjörnublik* for Harpsichord and Clarinet in Bb (2016)

4:45 minutes long

The arrangement for harpsichord employs a slightly different array of extended techniques compared with the version for piano, and makes use of certain qualities exclusive to the harpsichord, such as the sounds created by playing the strings inside the lid, which differ from the sounds created on a piano, and can have a much more "twinkly quality". The 'twinkly' quality can be seen in mm. 26 – 30. There is also the added benefit of being able to use the different stops on the instrument, which means there are a variety of timbres available. The sound of the brush on the internal harpsichord strings in this version of the piece somehow reminded me of satellites in space. I may have seen a documentary about space at some point which used a similar sound for satellites and the memory has imprinted itself. The harpsichord adds an ancient quality, but within the context of a 21st Century composition, this evokes a sense of timelessness.

This version of the piece was written after the wonders of contemporary harpsichord were introduced to me by the harpsichordist Goska Isphording at a contemporary music residency in Madeira in 2016 as I had never considered writing for harpsichord previously. Of the three the harpsichord version of this piece is probably my favourite.

The recording held in folder 2 is a studio recording and the performers are:
Clarinet: Sioned Eleri Roberts
Harpsichord: Katherine Betteridge

Katherine Betteridge

Stjörnublik

For

Clarinet in Bb and Harpsichord

Duration: ca. 4 minutes

All instruments are notated at sounding pitch

Painting by Katherine Betteridge

For Sioned

Programme note

“Stjörnublik” is Icelandic for "starlight". There are many words in Icelandic for starlight, all with slightly different meanings. This particular word refers to the twinkling effect that stars appear to have. *Stjörnublik* was inspired by a trip I made to Iceland one December, when the nights were extremely long, and the starlight and cold snowy environment very magical.

This piece started out its life as a piece for clarinet and piano and was written for a multimedia event called *Lie Still Sleep Becalmed*, held at the University of Bangor. The arrangement for harpsichord employs a slightly different array of extended techniques and makes use of certain qualities exclusive to the harpsichord, such as the sounds created by playing the strings inside the lid, which have a very different effect to the sounds created when doing the same on a piano, and can have a much more “twinkly quality”. There is also the added benefit of being able to use the different stops on the instrument, which means there are a variety of timbres available. Throughout the piece the clarinet plays many microtonal slow trills and multiphonics, intended to evoke the twinkling effect of starlight and an ethereal-like emptiness. The harpsichord adds an ancient quality, but within the context of a 21st Century composition, this quality evokes a suggestion of timelessness.

This piece is exceptionally quiet.

Performance Directions

Harpsichordist will need:

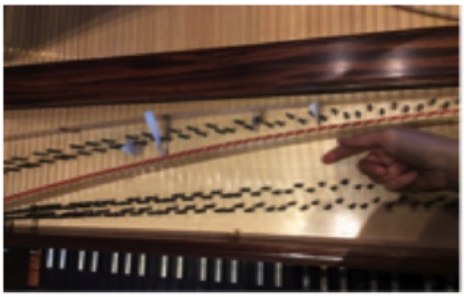
- A woolen glove - please use wool for timbral purposes
- White square stickers
- A soft make-up brush or shaving brush

See attached video to see how to achieve effect with make-up brush in bar 12)

On the harpsichord, use large square stickers to mark the following strings within the main body of the instrument:

G# (the lowest available octave)
B - all next notes need to be in the lowest register (but above the G)
C#
D
E

In addition, also mark 4 strings in the very front of the harpsichord - between the two sets of tuning pegs (see photo - pieces of paper show where to mark the strings, finger points to where to pluck)

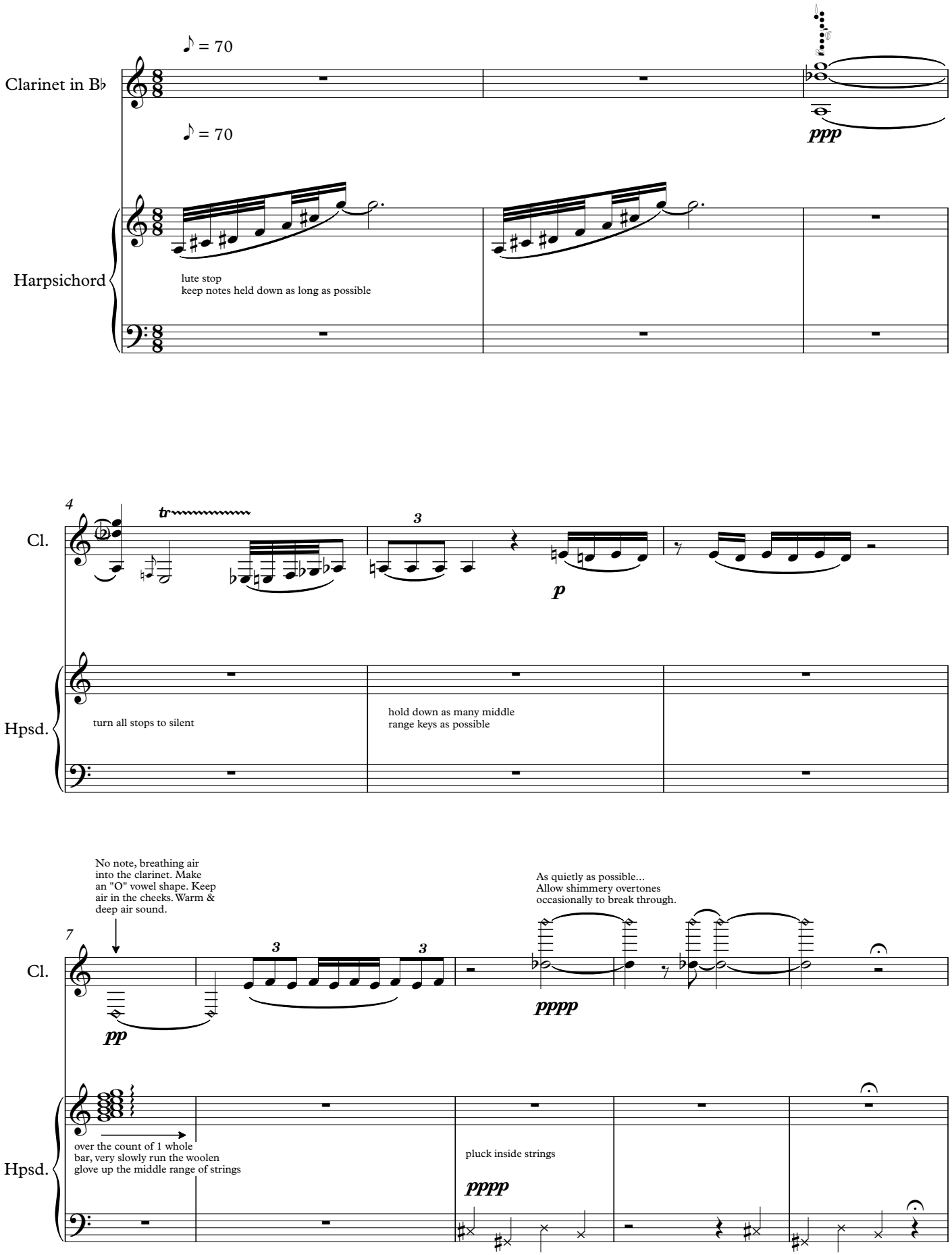


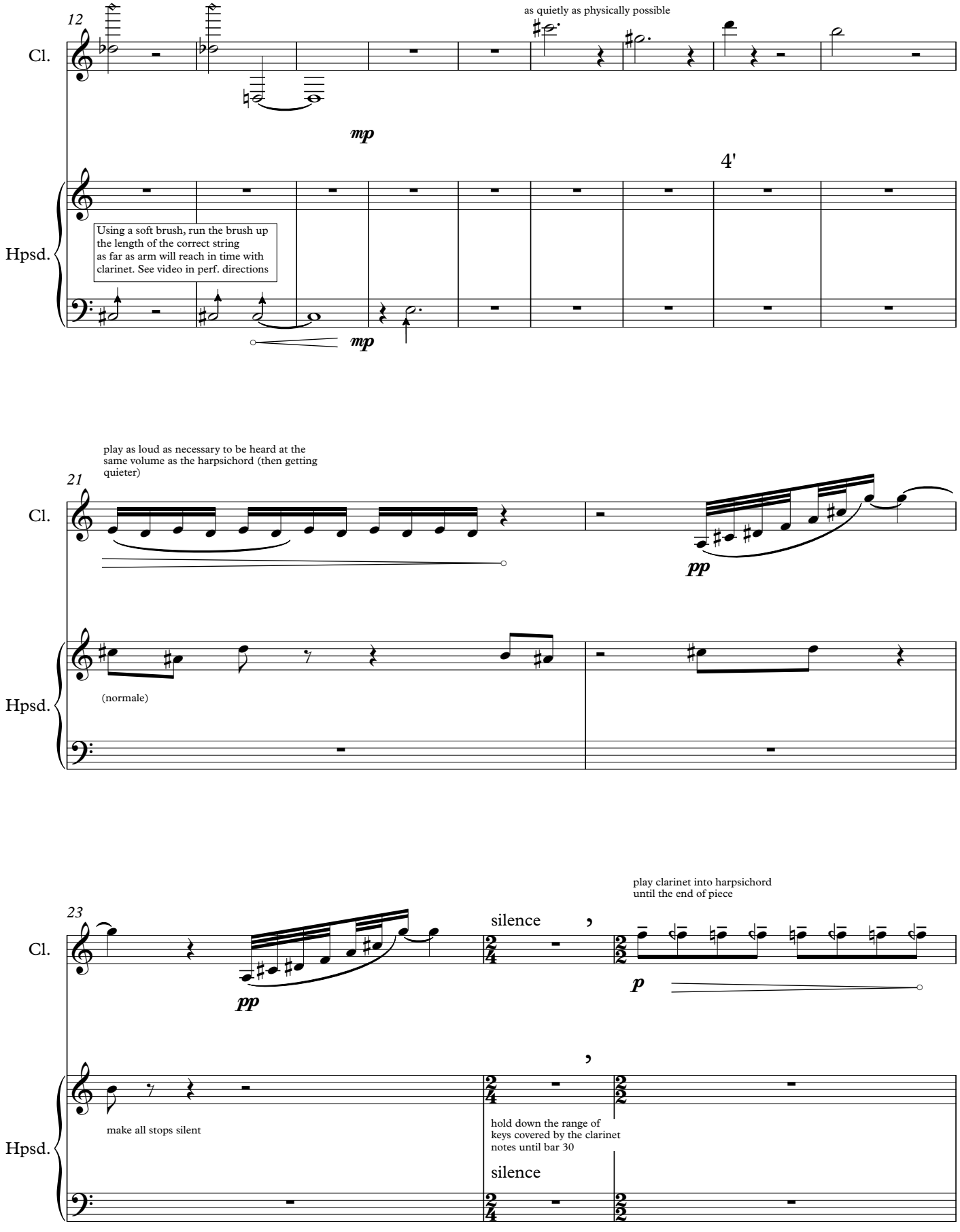
You will have to find the notes by ear as the sounding notes may be connected to different keys on different harpsichords:
G#
B
C#
D

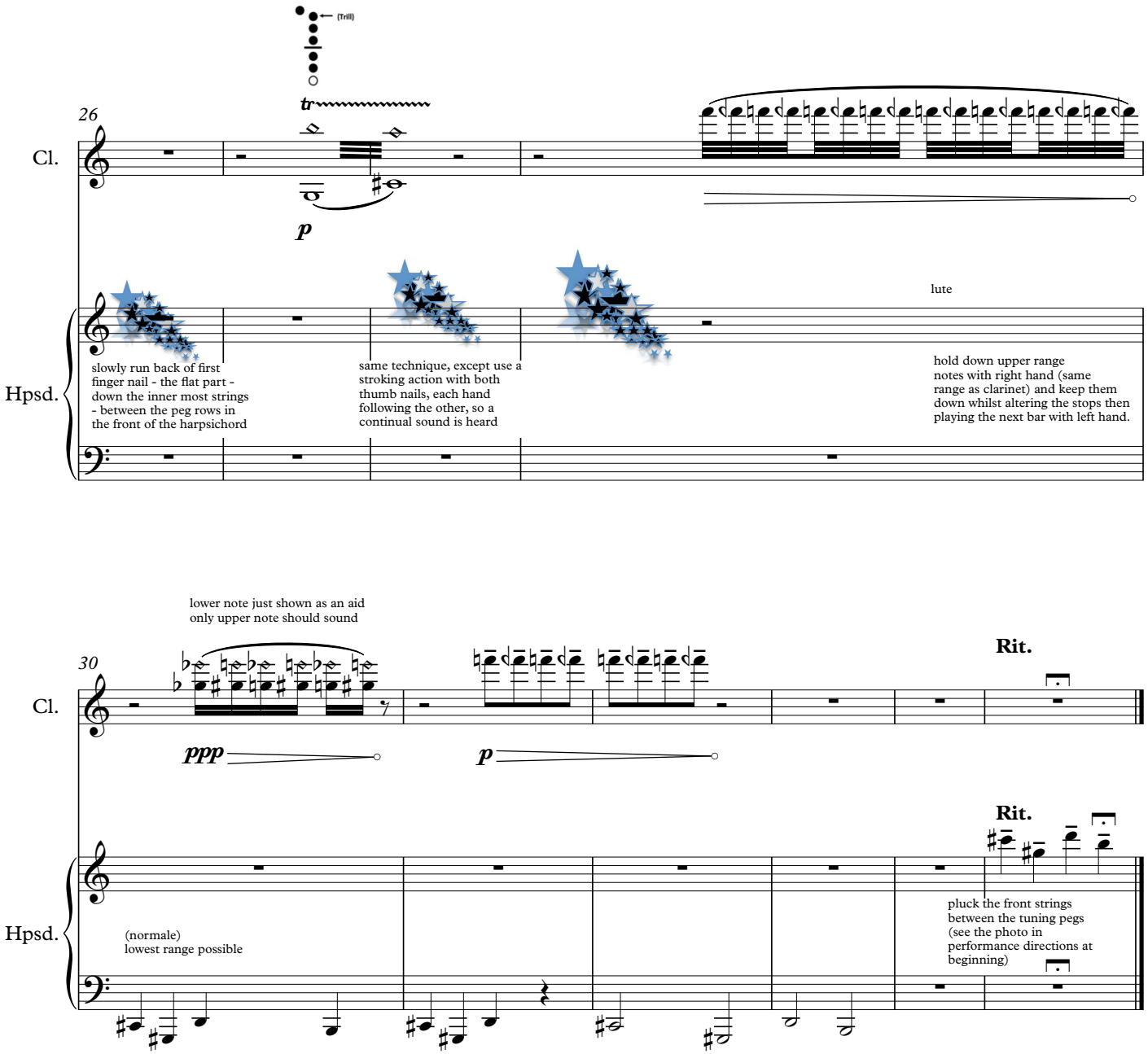
The strings stops to be used are indicated on the score, however, due to the fact that harpsichords vary so much, the indicated strings should be used as a guide, but the performer should use their discretion in order to adhere as closely as possible to the dynamic markings.

Stjörnublik

Katherine Betteridge




12
Cl.
as quietly as physically possible
mp
4'
Hpsd.
Using a soft brush, run the brush up the length of the correct string as far as arm will reach in time with clarinet. See video in perf. directions
mp
play as loud as necessary to be heard at the same volume as the harpsichord (then getting quieter)
21
Cl.
pp
(normale)
Hpsd.
play clarinet into harpsichord until the end of piece
23
Cl.
pp
silence
p
make all stops silent
hold down the range of keys covered by the clarinet notes until bar 30
Hpsd.
silence


(Trill)
26
Cl.
p
Hpsd.
slowly run back of first finger nail - the flat part - down the inner most strings - between the peg rows in the front of the harpsichord
same technique, except use a stroking action with both thumb nails, each hand following the other, so a continual sound is heard
lute
hold down upper range notes with right hand (same range as clarinet) and keep them down whilst altering the stops then playing the next bar with left hand.
lower note just shown as an aid only upper note should sound
30
Cl.
ppp
p
Rit.
Hpsd.
(normale)
lowest range possible
Rit.
pluck the front strings between the tuning pegs (see the photo in performance directions at beginning)

12. *Stjörnublik* for Harp and Clarinet in Bb

5.40 minutes long

Each version of this piece has a slightly different starry quality. The piano version has a space-like echoey atmosphere created by the resonance of the piano. The harpsichord has a 'twinkly' cold, crystal-like quality, evoking shooting and falling stars, whilst the harp version attempts to convey an earth-bound image of the heavens.

The harp version posed a new set of opportunities for experimentation. I did initially intend for Mared Emlyn (the harpist) to brush the harp strings with the glove in her hand (as is done in the harpsichord version). However, we experimented with the sound and found that actually wearing the glove was more effective, both sound-wise and visually. We also needed to change the notes that were brushed as metal harp strings sound more effective than the nylon ones. Also, the twinkly sound was better achieved by metal on metal, than by human nails on metal, which was why the Yale key was introduced (a yale key is suggested as the over-hanging metal part of a chubb or mortice key might get caught in the strings).

The recording held in folder 2 is a recording of the live concert which took place April 2019 in Pontio Arts Centre, Bangor. The performers are:
Harp: Mared Emlyn
Clarinet: Sioned Eleri Roberts

Katherine Betteridge

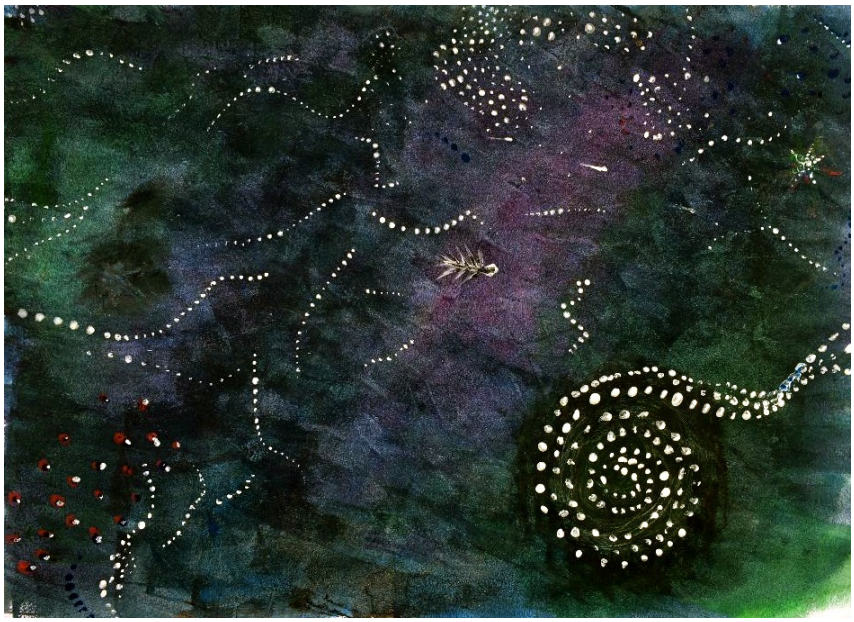
Stjörnublik

For

Clarinet in Bb and Harp

Duration: ca. 5.40

All instruments are notated at sounding pitch



Painting by Katherine Betteridge

Programme note

“Stjörnublik” is Icelandic for "starlight". There are many words in Icelandic for starlight, all with slightly different meanings. This particular word refers to the twinkling effect that stars appear to have. *Stjörnublik* was inspired by a trip I made to Iceland one December, when the nights were extremely long, and the starlight and cold snowy environment was magical.

This version of Stjörnublik was commissioned for a concert at Pontio, Bangor University, in 2019. The piece started its life, however, as a composition for clarinet and piano and was then arranged for harpsichord and clarinet. Like the other versions, the arrangement for harp employs a different array of extended techniques and makes use of certain qualities exclusive to the harp, such as the quality of the sound made when, instead of plucking the strings, the harpist presses and releases the strings, so that the re-bound makes a specific sound. The sound of the pedal changes is employed to achieve a specific effect, and the harpist is requested at one point to wear a glove. Throughout the piece the clarinet plays many slow microtonal trills and multiphonics, intended to evoke the twinkling effect of starlight and an ethereal-like emptiness.

This piece is exceptionally quiet.

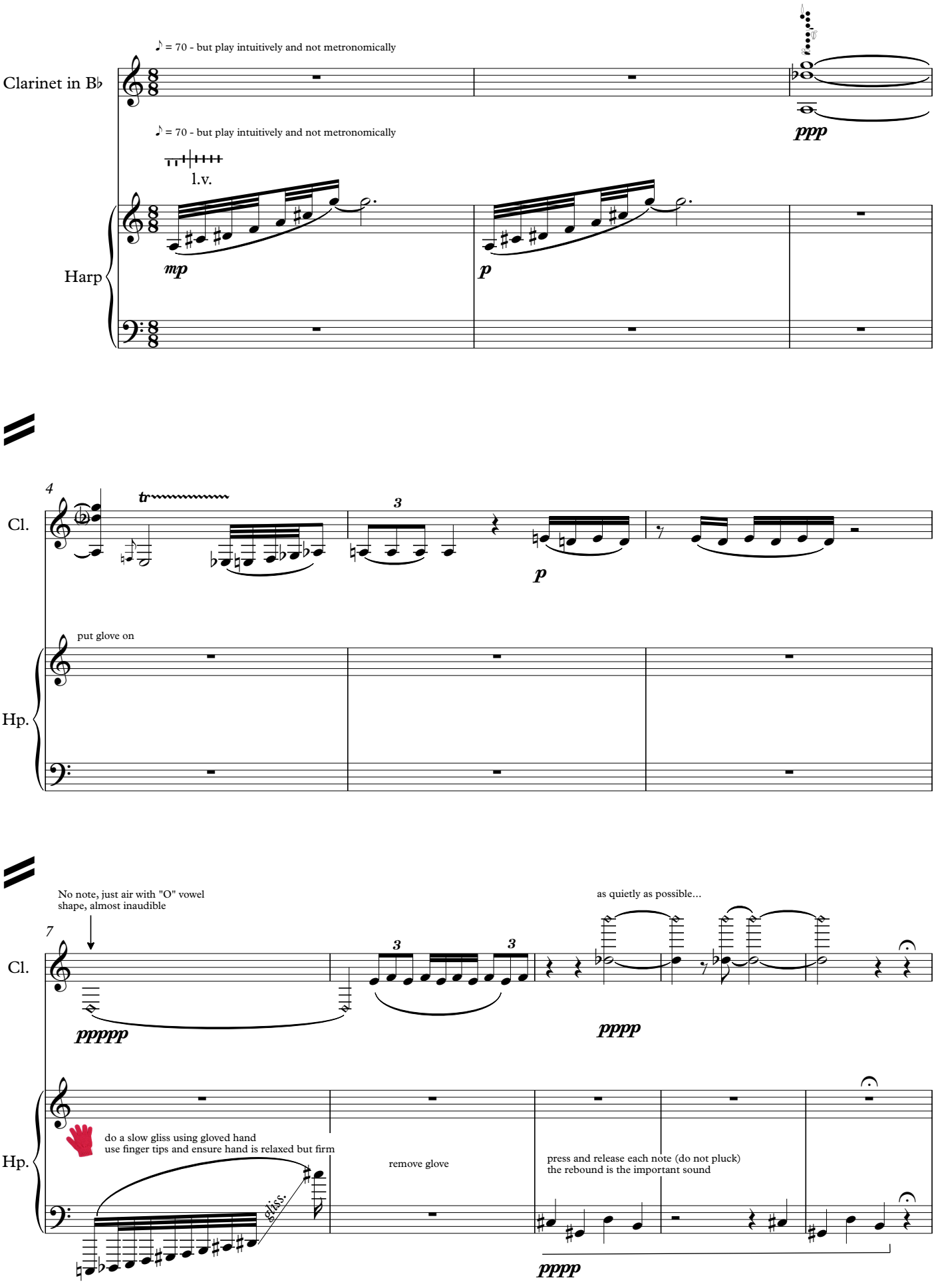
Harpist will need:

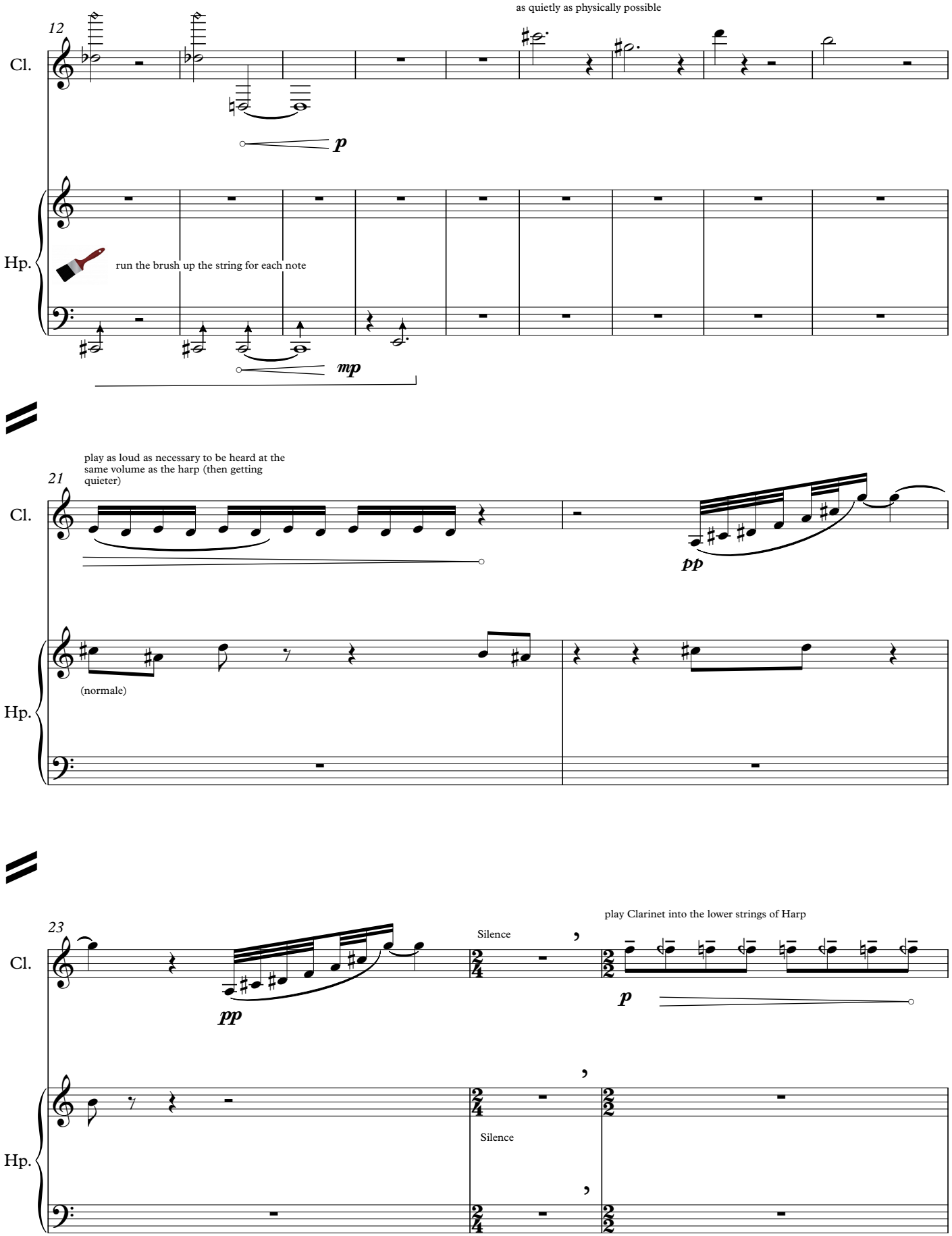
-A woolen glove - please use wool for timbral purposes 
-A soft paint brush or shaving brush 
-Two yale keys (yale is suggested as the over-hanging part of a mortice or chubb key may catch on the strings). 
-Tune bottom C to ♮ and bottom D to ♭ and top G to ♮

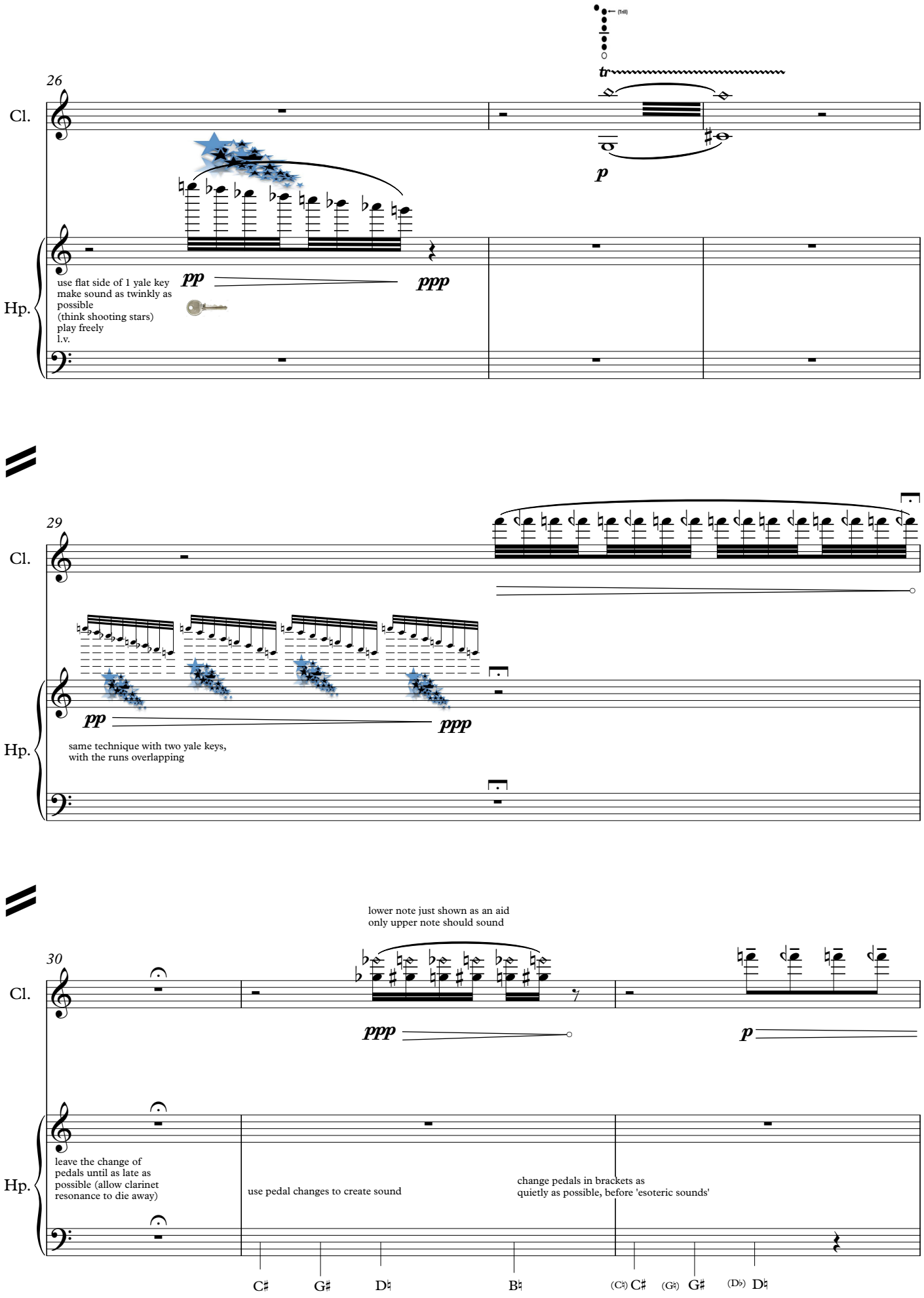
Position the harp sideways on to the audience, with the
clarinet standing behind it - so that the clarinet faces the audience
through the harp strings

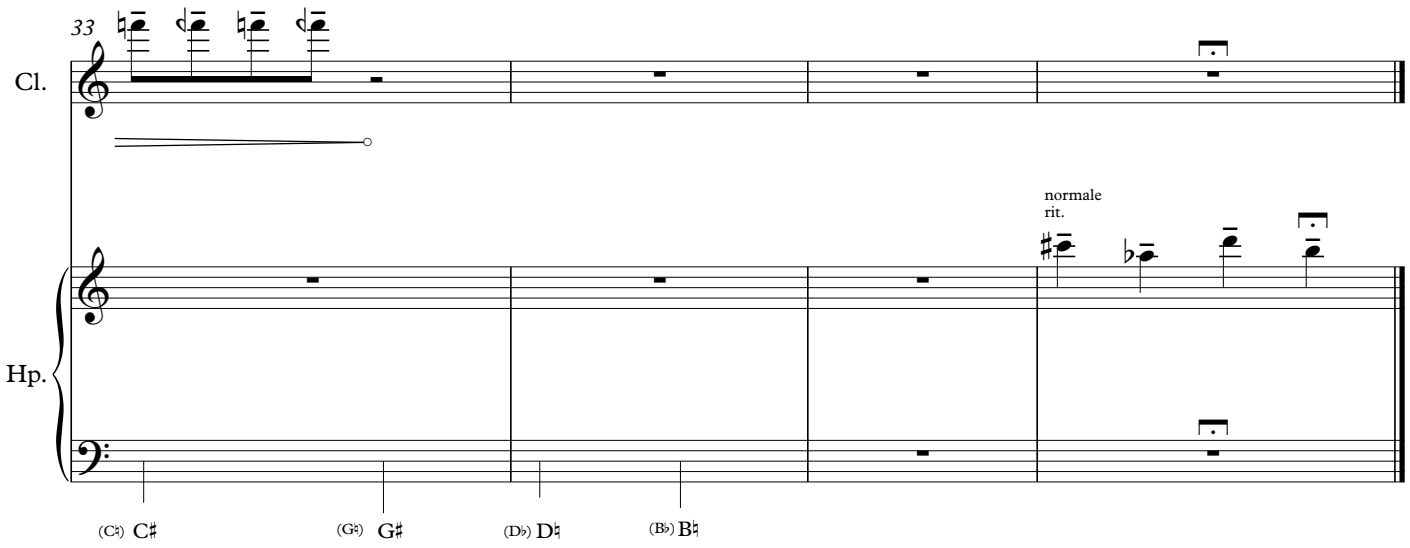
Stjörnublik

Katherine Betteridge




as quietly as physically possible
12
Cl.
p
Hp.
run the brush up the string for each note
mp
play as loud as necessary to be heard at the same volume as the harp (then getting quieter)
21
Cl.
pp
(normale)
Hp.
23
Cl.
pp
Silence
play Clarinet into the lower strings of Harp
p
Hp.
Silence


26
Cl.
tr
p
Hp.
use flat side of 1 yale key
make sound as twinkly as
possible
(think shooting stars)
play freely
l.v.
pp
ppp
29
Cl.
pp
ppp
Hp.
same technique with two yale keys,
with the runs overlapping
30
lower note just shown as an aid
only upper note should sound
Cl.
ppp
p
Hp.
leave the change of
pedals until as late as
possible (allow clarinet
resonance to die away)
use pedal changes to create sound
change pedals in brackets as
quietly as possible, before 'esoteric sounds'
C♯
G♯
D♮
B♮
(C♮) C♯
(G♮) G♯
(D♭) D♮


33
Cl.
normale
rit.
Hp.
(C♮) C♯
(G♮) G♯
(D♭) D♮
(B♭) B♮

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