

Leevi Räsänen

The Area of Bigons

for 1-2 string trios

2026



Music Finland

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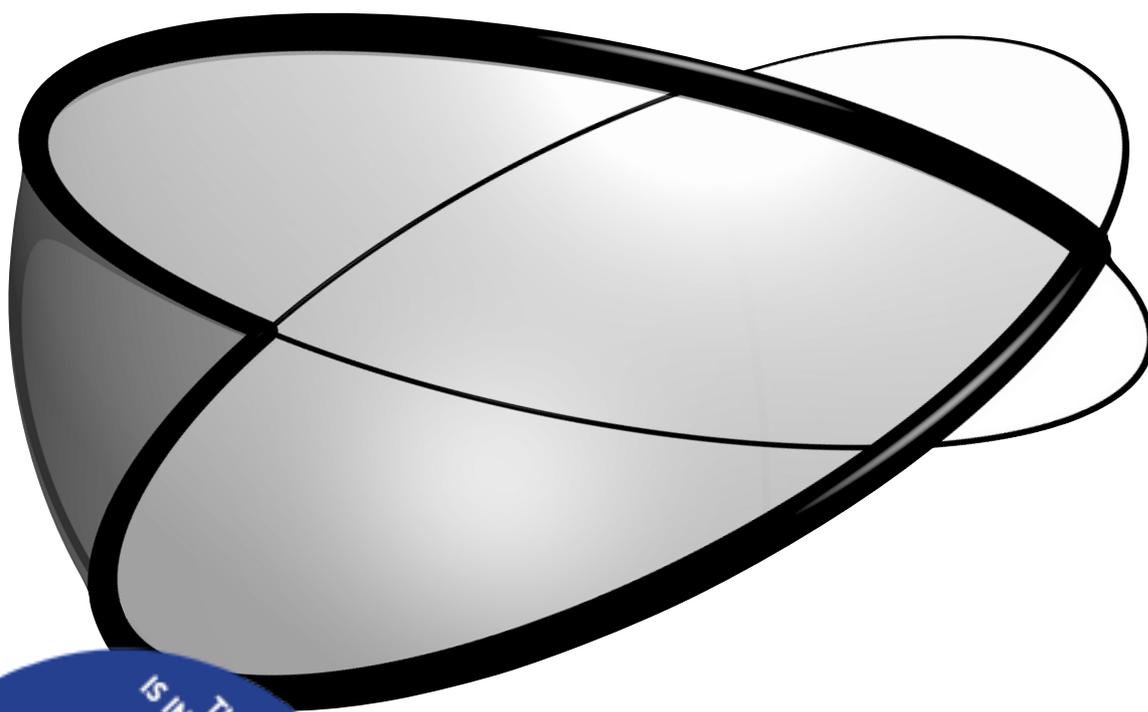
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Leevi Räsänen

The Area of Bigons

for 1–2 string trios



Leevi Räsänen: The Area of Bigons *for 1–2 string trios*

Movements

- I. Bygones I (~5')
- II. Side by Side (~5'45")
- III. Infinity Loop (min. ~7')
- IV. Lunes (~5')
- V. Study on Spheres (~6')
- VI. Bygones II (~4')
- VII. Lunes: Coda (~4'30")

The work can be performed by one or two string trios. **II** and **IV** are composed for two string trios.

III includes an optional accompaniment for the second string trio in bars 111-118.

For **V**, an additional cello with the C-string tuned to a B-flat should be prepared. It is also possible to retune the cello before and after **V**. As an appendix, a version of **V** arranged a major second higher is attached for situations where it might not be practical to retune the cello mid-performance, or where an additional cello might not be available.



If performed by two string trios, the following is suggested for live performances:

The two string trios are placed some distance away from each other. It should give the impression of distance; however, they should be able to communicate with each other musically and hear each other well.

I is performed by trio A.

II is performed together.

III is started by trio A and continued by trio B after bar 155. **III** can be performed as a loop ad infinitum. The second time, when arriving at bar 155, the change is done vice versa. The movement is ended by fading out to niente. The trio not playing the "main part" always performs the optional accompaniment.

IV is performed together.

V is performed by trio A.

VI is performed by trio B.

VII is performed by either trio, or doubled by both.

If performed by only one trio, the following is suggested for live performances:

In **II**, either the parts of trio A or trio B can be played – however, the players should stay in the chosen trio for the whole movement.

III can be performed as a loop with only one trio as well. Then, the players should jump to the first instance of bar 44 after bar 155. The movement is ended by fading out. The optional accompaniment is left out.

In **IV**, similarly to **II**, either of the trios can be played.



PERFORMANCE INSTRUCTIONS

The following microtonal notation is used (deviations marked in cents, 100 cents = 1 semitone):

\flat	$\flat\flat$	\flat													
-166	-150	-133	-100	-50	-67	-66	-33	0	+33	+34	+50	+67	+100	+133	+150

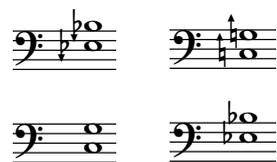
Quarter tones and sixth tones are used in the piece. Quarter tones ($\pm 50\text{c}$) are marked with standard quarter tone accidentals and sixth tones ($\pm 33\text{c}$) with arrows. Both arise from the natural overtone series. When the tonality changes to a sixth tone lower, a double sixth flat is used (two downward arrows stacked). It might look intimidating but rest assured – by listening to the context, the interval is as easy to tune as a regular sixth flat.

The most common types of harmonies used in this piece are:

- chords based on the 11th harmonic (quarter tone accidentals)



- chords built from two pure fifths, a septimal minor third apart (sixth tones notated with arrows)



A septimal minor third is defined as the interval between the 6th and 7th harmonic of the harmonic series, and it is 267c . That is 33c (= a sixth tone) lower than the twelve-tone equal temperament minor third at 300c .

- the septimal minor third by itself (sixth tones notated with arrows)



- the septimal minor third by itself (sixth tones notated with arrows)



the piece. The composer humbly asks musicians to pay close attention to the piece, even if it might cause some gray hairs. The result will be

The bpm **metronome marks** are exact and should be followed carefully.

All **staccato** notes should be the same length.

When no instruction about **vibrato** is provided, context-dependent natural-sounding vibrato should be used.

Glissandi should start immediately at the beginning of the note and last for its whole notated duration.

The number of **ricochet** notes notated isn't exact. The bow should be left to bounce naturally.

GENERAL NOTATION CONVENTIONS



shift from one playing technique to the other gradually



circular bowing

ABBREVIATIONS

non vib.

no vibrato at all

con vib./vib. ord.

natural vibrato, context-dependent

molto vib.

a very wide, slow vibrato

sul tasto

play on top of the fingerboard, producing a matte sound

sul pont.

When sul pont. is used, **molto sul pont.** is always meant, unless marked 'poco'. Bow near the bridge, producing ample overtones but so that the notated pitch is still audible.

poco sul pont.

bow slightly nearer to the bridge than normal, producing an audible "twang" to the sound

pos. ord.

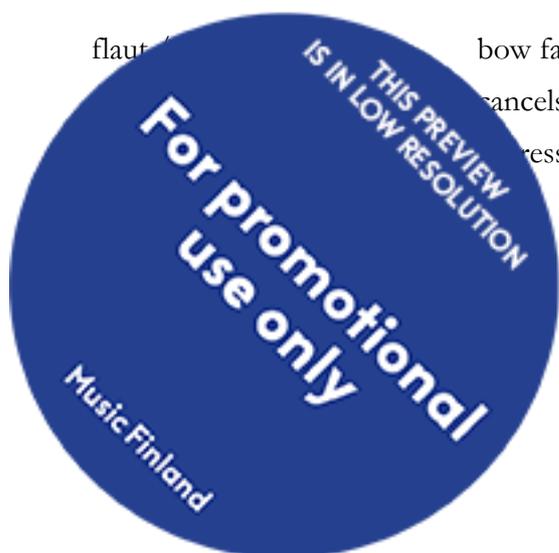
cancels all instructions related to bow position

flaut.

bow fast and with light pressure on the fingerboard, creating a flute-like sound

cancels all special playing techniques

pressivo



säveltäjältä

Monitaiteinen yhteistyö on ollut säveltäjä-minulleni transformatiivista. Aloitimme yhteistyön koreografi **Laura Jantusen** kanssa *Outoliini*-teoksella (2023), minkä jälkeen uuden yhteistyön suunnittelu alkoi heti. Intensiivinen tanssiteoksen työryhmätyöskentelyyn osallistuminen Lauran kanssa on opettanut minua harjoitteen, prosessin ja praktiikan tärkeydestä. Vastoin kuin yleensä esimerkiksi musiikkia säveltäessä, tanssin kontekstissa materiaalia voidaan ”louhimalla” löytää aktiivisen tekemisen kautta, valmiita ideoita ja ideaaleja kaihtaen. Teos ja sen materiaali ovat yhteydessä kehoon ja syntyvät siitä. Valitseminen syntyy havainnosta.

Aloittaessani säveltämään *The Area of Bigons* -teosta, pohdin: ”Mitä jos jotain samankaltaista voisi tuoda musiikin kontekstiin? Millaista olisi säveltäjän materiaalin louhinta? Missä tapahtuvia muutoksia tarkkailisin, millaisiin havaintoihin valintani perustaisin?” Olen jo useiden teosten ajan työskennellyt prosessipohjaisiin menetelmiin, joissa pienestä määrästä materiaalia tuotetaan erilaisten digitaalisten, mentaalisten tai fyysisten prosessien kautta uutta materiaalia. Tätä materiaalia sitten transkriboin, eli käänän uudestaan notaatioksi ja edelleen suodatan, venytän ja muovaan – valikoin siitä onnistuneita palasia. Näillä menetelmillä olen säveltänyt myös *The Area of Bigons* – ”*Kaksikulmioiden ala*” -teoksen.

Nimi juontuu Laura Jantusen ”*ympyrät, jotka kuvittelevat olevansa viivoja*” -teokseen, jonka yhteydessä tämä teos esitettiin julkisesti ensimmäistä kertaa. Jos on olemassa aihe, sillä aiheella on aina vasta-aihe, yhdenlaiselle on toisenlainen. Ympyröistä, jotka kuvittelevat olevansa viivoja, ajattelin heti viivoja, jotka kuvittelevat olevansa ympyröitä. Jousisoittimen jousi, jolla kielet saadaan värähtelemään, on kuin viiva, jota voidaan liikuttaa myös ympyrän muodossa.

Circular bowing -tekniikka jousisoittimilla tarkoittaa, että jousta käytetään perinteisen edestakaisen liikkeen sijaan niin, että jousen paikka vaihtelee läheltä tallaa otelaudan päälle. Tämä vaikuttaa syntyvään äänen väriin niin, että ääni vuoroin terävöityy ja pehmenee, välissä kuuluu myös suhinaa ja suihkia. Ääni kuuluu säännöllisesti niin kauan kuin ympyränmuotoinen liikekin. Tekniikka perustavanlaatuisen häilyvän, sähkövän luonteen, jossa äänet ovat a lomassa, kuin tanssijat ilmaa halkomassa, kaksikulmio pinta-alaansa



Samoin kuin ei ympyrä voi muuttua viivaksi, on kaksikulmiokin paradoksi, joka muuttuu mahdolliseksi ympyrän pinnalla, missä sen pinta-ala voidaan määrittää. Pohdin, miten pyöreyttä voisi musiikilla etsiä. Ympyrä ei ole erityisen musiikillinen muoto, sillä monesti musiikki on säännöllistä: kahta, kolmea, neljää tai muuta yksinkertaista lukua edustavaa. *The Area of Bigonsissa* vaikutelma ympyrän muotoa etsivistä viivoista syntyy, kun monesti kolmijakoinen ”valssaava musiikki” saa poljentonsa yksittäisistä pitkistä äänistä, jotka limittyvät ja lomittuvat ja vasta yhdessä muodostavat kolmijakoisen pulssimaailman. Kolmeen laskettavaa musiikkia voi usein nähdä myös kapellimestarien lyövän ympyrän muodossa, vain tahtien alut näyttäen.

Teoksen uniikki sävy maailma syntyy tavallista pienemmistä terssi-intervalleista (jollaisista esimerkiksi normaalit duuri- ja mollisoinnut muodostuvat), joita käytetään teoksessa kauttaaltaan. Ajattelen niiden supistavan muodoltaan suoraa kolmi- ja nelisointuja niin, että suoran kulmat alkavat kääntyä ylöspäin, kuin kastemadot, jotka hapuilevat kohti taivasta, kuin viivat, jotka koittavat epätoivoisesti löytää yhteen ympyrän muotoon.

The Area of Bigons esitettiin ensimmäistä kertaa koreografi **Laura Jantusen** teoksessa *ympyrät, jotka kuvittelevat olevansa viivoja* Uuden tanssin keskus **Zodiakissa** 10.4.2026, missä sitä esitettiin yhteensä 9 esityksen verran. Musiikki äänitettiin teosta varten. Äänittäjänä toimi **Armi Lampela** ja äänisuunnittelijana esityksessä **Mitja Nylund**. Äänitteellä teoksen soittivat viulisti **Aino Szalai**, alttoviulisti **Ida Kosonen** ja sellisti **Eeva Rysä**.

Leevi Räsäsen sävellystyötä tuki **Koneen Säätio**.



composer's note

Multidisciplinary collaboration has been transformative for me as a composer. Our work with choreographer **Laura Jantunen** began with *Outoliini* in 2023, and planning the next project started immediately after. Intensive participation in the working process of a dance piece with Laura has taught me the importance of scores, process-based work, and artistic practice. Unlike in more conventional ways of composing music, in the context of dance, material can be “mined” through active practice, without relying on ready-made ideas or ideals. The work and its material are connected to the bodies and arise from them. Selection emerges from observations.

When I began composing *The Area of Bigons*, I asked myself: “What if something similar could be brought into the musical context?” What would it mean to “mine” material as a composer? Where would I direct my attention, and on what kinds of observations would I base my choices? For several works now, I have used process-based methods in which a small amount of material generates new material through digital, mental, or physical processes. I then transcribe these materials back into notation and further filter, stretch, and reshape them, selecting the fragments that turned out best. These methods also form the basis of *The Area of Bigons*.

The title derives from Laura Jantunen’s work “*ympyrät, jotka kuvittelevat olevansa viivoja*” (*circles that imagine themselves as lines*) in connection with which this piece was first presented in public. If there is a subject, there is always a countersubject; for one kind of form, there is another. From circles that imagine themselves as lines, I immediately thought of lines that imagine themselves as circles. The bow of a string instrument, which causes the strings and the body of the instrument to vibrate, is a sort of line that can also be moved in a circular manner.

Circular bowing on string instruments refers to using the bow not in the usual back and forth way, but so that the contact point shifts continuously from near the bridge onto the fingerboard. This alters the timbre: the sound sharpens and softens in turn, and between these extremes one hears breath and friction. The variation continues for as long as the circular motion continues. This creates a fundamentally flickering, iridescent quality, in which sounds flicker like dancers cutting through air, like a bigon searching for its area.



Just as a circle cannot become a line, a bigon is a paradox that becomes possible on the surface of a sphere, where its area can be defined. I began to wonder how one might search for roundness in music. The circle is not an especially musical shape, since music often relies on regular divisions: two, three, four, or other simple integers. In *The Area of Bigons*, the sense of lines seeking a circular shape grows out of the music's triple meter, sometimes almost waltz-like in character. The pulse emerges from individual sustained tones that overlap and interlock, creating a ternary pulse. Music in three is often conducted in a circular gesture, with only the downbeats clearly marked.

The unique sound of the piece is created through the use of smaller-than-usual thirds throughout the work. A third is the interval that is used to build, for example, major and minor chords. I think of them as contracting straight triads and seventh chords so that their angular edges begin to tilt upward, like earthworms reaching toward the sky, like lines straining to close into the shape of a circle.

The Area of Bigons was performed for the first time in choreographer **Laura Jantunen**'s work *ympyrät, jotka kuvittelevat olevansa viivoja* (*circles that imagine themselves as lines*) at the **Zodiak** – Centre for New Dance on April 10, 2026, where it was performed a total of nine times. The music was recorded specifically for the work. The recording engineer was **Armi Lampela**, and the sound designer for the performance was **Mitja Nylund**. On the recording, the work was performed by violinist **Aino Szalai**, violist **Ida Kosonen**, and cellist **Eeva Rysä**.

Leevi Räsänen's artistic work was supported by the **Kone Foundation**.



Contact

Leevi Räsänen

+358408099234

leevirasanen@outlook.com

www.leevirasanen.com

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Music Finland

written concurrently with Laura Jantunen's "ympyrät, jotka kuvittelevat olevansa viivoja"
with kind support from the Kone Foundation

The Area of Bigons

music for 1–2 string trios

Leevi Räsänen 2025–2026

I. Bygones I

♩ 40
con vib.
pizz.
mp

Violin

Viola

Violoncello

mp

5

9

non vib. arco
con vib. pizz.

x4

arco

non vib. molto flaut.

3

non vib. arco

3

3

ppp

sfz

ppp

pppp

sfz

ppp



12

con vib. pizz. *p sub.* *f* arco *mf* pizz. *mp* arco *pp* arco *p*

con vib. pizz. *p sub.* arco *mp* pizz. *sfz* arco *p*

con vib. pizz. *p sub.* II arco *mp* pizz. III *p sub.* arco *pppp* *p*

17

pizz. arco *mp* *pp* pizz. *mf sub.* x3

pizz. *sfz* *mp* arco pizz. *mf* *mp sub.* arco *mf sub.*

IV pizz. *sfz* *mf* *sfz* *sfz*

22

sfz *mf* *ppp* I pizz. II *p* III *pp*

arco pizz. *ppp* *p* *pp*

arco pizz. *mp* *sfz* *p* *ppp* *p sub.* *mf* *p sub.* *f* *p*



24

sfz *p* *f* *p* *fff* *pp sub.* *fff sub.* *p*

II

non vib. arco

non vib. arco

pizz.

pizz.

arco

arco

mp

mp

27

mp *pp*

pizz.

arco

pizz.

arco

p

p



II. Side by Side

72 arco x3

Violin 1

Viola 1

Violoncello 1

Violin 2

Viola 2

Violoncello 2

pp

arco

pp

arco

pp

arco

pp

pp

ricochet

(6:4 \flat)

pp

sim.

(6:4 \flat)

pp

ppp

ricochet

(6:4 \flat)

pp

sim.

(6:4 \flat)

pp

ppp

ricochet

(6:4 \flat)

ppp

sim.

(6:4 \flat)

ppp

II sul pont.

pp

4

p

mf

p

pp

pp

p

p

pp



18

III sul pont. arco
pizz. ord. pizz. III sul pont. arco ord.

arco pizz. arco pizz. arco

II sul pont. ord. II sul pont. ord. sul pont.

(*p*) (*pp*) (*mf*) (*pp*) (*p*)

(*p*) (*pp*) (*mf*) (*pp*) (*pp*)

(*p*) (*pp*) (*mf*) (*pp*) (*p*)

(don't play E flat on the repeat) (ord.)

(*p*) (*pp*) (*mf*) (*pp*) (*p*)

26

IV

ord. non vib.

f espress. *p* *ppp*

p *mf* *p* *mf espress.*

sul pont. ord.



33

pp *sub.* mf p f

ord. non vib. poco sul pont. sul pont.

mf p f

39

pp *sub.* mf *espress.* pp mp p

III

espress. p



44

Musical score for measures 44-49. The score is written for a string quartet (Violin I, Violin II, Viola, and Cello/Double Bass). The key signature has two flats (B-flat and E-flat), and the time signature is 4/4. The dynamics range from *ppp* to *p*. The score includes various articulations such as slurs, accents, and hairpins. Measure 44 starts with *ppp* in all parts. Measure 45 has *pp* in the upper parts and *pp* in the lower parts. Measure 46 features *pp sub.* and *espress.* in the upper parts, and *mp* in the lower parts. Measure 47 has *pp* in the upper parts and *pp* in the lower parts. Measure 48 has *p* in the upper parts and *p* in the lower parts. Measure 49 has *pp* in the upper parts and *pp* in the lower parts. The score concludes with a dynamic range from *pp* to *p* and *mf* to *p* in the lower parts.

50

Musical score for measures 50-54. The score is written for a string quartet (Violin I, Violin II, Viola, and Cello/Double Bass). The key signature has two flats (B-flat and E-flat), and the time signature is 4/4. The dynamics range from *mf* to *mp*. The score includes various articulations such as slurs, accents, and hairpins. Measure 50 starts with *mf espress.* in the upper parts and *mf* in the lower parts. Measure 51 has *mf* in the upper parts and *mf* in the lower parts. Measure 52 has *mf* in the upper parts and *mf* in the lower parts. Measure 53 has *mf* in the upper parts and *mf* in the lower parts. Measure 54 has *mp* in the upper parts and *mp* in the lower parts. The score concludes with a dynamic range from *mf* to *mp* and *mf* to *mp* in the lower parts.



87

flautando 7 ord.

p <> *pp* <> *ppp* <> *ppp* *n* *p* <>

p <> *pp* <> *ppp* <> *pp* <> <> *p* <>

p <> *pp* <> *ppp* <> *pp* <> <>

p <> *pp* <> *ppp* <> *p* <>

mf *p*

93

sul pont. non vib. ord.

ppp thin, piercing *pp* *p* *mf*

pp <> *pp* *mf sub.* *p sub.* *mf* <> <> <>

pp <> *mf* <> *f* *mf* <> <> <>

mf *mf sub.* *p* *mf* <> <> <>

mf <> <> <> <> <>



101

Musical score for measures 101-106. The score is arranged in two systems. The first system contains measures 101-103, and the second system contains measures 104-106. Each system has three staves: Treble, Alto, and Bass. Dynamics include *f sub.*, *pp*, *f*, *mp*, and *f*. The bass staff includes Roman numerals IV and *pizz.* markings.

107

Musical score for measures 107-112. The score is arranged in two systems. The first system contains measures 107-110, and the second system contains measures 111-112. Each system has three staves: Treble, Alto, and Bass. Dynamics include *pppp*, *ppp*, *p*, and *ppp*. The score includes *pizz.* markings and a diagram for a half circle / quarter note. The diagram shows a half circle with a dashed line and a vertical line, with a quarter note symbol below it.



113

x3

The image shows a musical score for three staves: Treble, Alto, and Bass clefs. The score is divided into two systems, each with four measures. The first system shows a musical phrase starting in the second measure. The Treble staff has a melodic line with dynamics *p* and *ppp*. The Alto staff has a similar melodic line with dynamics *p* and *ppp*. The Bass staff has a simple accompaniment with dynamics *p* and *ppp*. The second system repeats the phrase, with the Treble and Alto staves having dynamics *p* and *ppp*, and the Bass staff having dynamics *p* and *ppp*. The score is marked with a repeat sign and a multiplier 'x3' in the top right corner.



III. Infinity Loop

♩ 72

non vib.
arco

Violin

pppp

non vib.
arco

Viola

pppp

non vib.
arco

Violoncello

pppp

12

con vib.

23

pppp

32

poco

poco

poco



40

∞

poco

con vib. ad lib. where sensible

poco

con vib. ad lib. where sensible

poco

52

mp

mp

mp

61

68

II

II

III



78

Musical score for measures 78-85. The score is written for three staves: Treble, Alto, and Bass. The key signature has two sharps (F# and C#). The music features a complex rhythmic pattern with many sixteenth and thirty-second notes. The bass line has a steady eighth-note accompaniment.

86

Musical score for measures 86-93. The score is written for three staves: Treble, Alto, and Bass. The key signature has two sharps. The music continues with intricate rhythmic patterns. In measure 93, there are markings for fingerings: II and III on the treble staff, and a double bar line with a repeat sign on the alto staff.

94

poco piú mosso

a tempo

Musical score for measures 94-98. The score is written for three staves: Treble, Alto, and Bass. The key signature has two sharps. The tempo changes from 'poco piú mosso' to 'a tempo'. In measure 98, there are markings for fingerings: III on the treble staff, and a double bar line with a repeat sign on the alto staff. The bass line features a triplet of eighth notes in measure 97. Dynamics include 'f' (forte) in measures 98 and 99.

99

Musical score for measures 99-106. The score is written for three staves: Treble, Alto, and Bass. The key signature has two sharps. The music continues with complex rhythmic patterns. The bass line has a steady eighth-note accompaniment.



106 *hardanger-ish*

3

1.2.

3.

111

ppp

ppp

ppp

pizz.

mf

mf



119

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

125 *poco rit. a tempo*

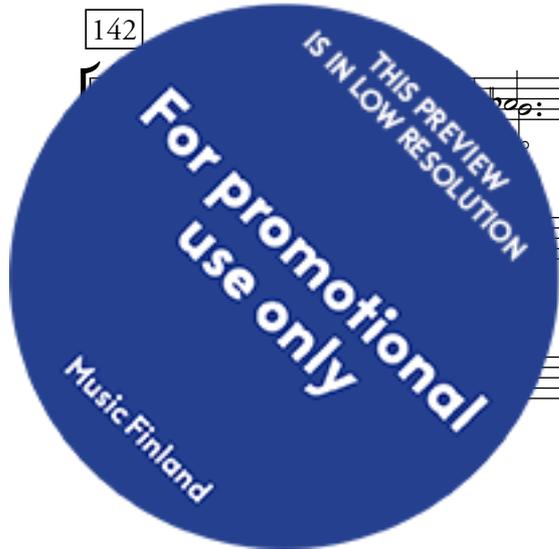
p *p* *mf*

133

p

142

p



151

∞

Musical score for measures 151-156. The score is written for three staves: Treble, Alto, and Bass clefs. It features a series of chords and single notes, with some notes marked with a fermata. The key signature has one flat (B-flat).

44 ∞

Musical score for measures 157-162. The score is written for three staves: Treble, Alto, and Bass clefs. It features a series of chords and single notes, with some notes marked with a fermata. The key signature has one flat (B-flat).

Musical score for measures 163-168. The score is written for three staves: Treble, Alto, and Bass clefs. It features a series of chords and single notes, with some notes marked with a fermata. The key signature has one flat (B-flat). The word "arco" is written above the Treble and Alto staves, and "ppp" is written below the Treble and Alto staves.

52



Faded musical score for measures 169-174. The score is written for three staves: Treble, Alto, and Bass clefs. It features a series of chords and single notes, with some notes marked with a fermata. The key signature has one flat (B-flat).

14

IV

sul pont.

mp

p

IV

p

pp

21

sul pont.

ord.

mp

ord.

p

ord.

mp

ord.

p

pizz.

arco

p

p

p

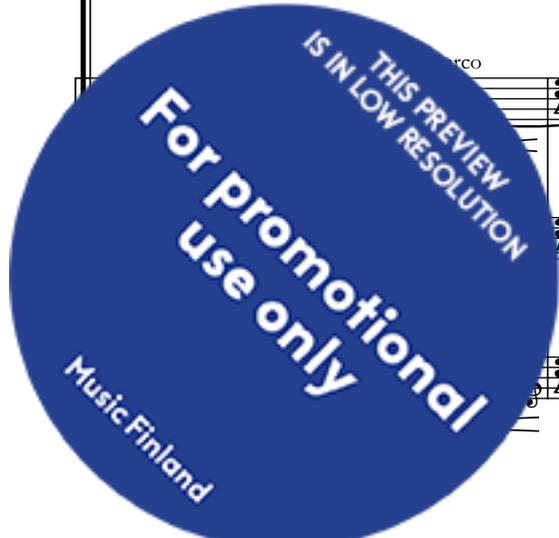


25

Musical score for measures 25-29. The score is written for three systems of staves. The first system consists of a single treble clef staff with dynamics *f* and *p*. The second system consists of a bass clef staff with dynamics *mp*, *f*, *p*, and *mf*. The third system consists of a treble clef staff with dynamics *f*, *mp*, *p*, and *mf sub.*, and a bass clef staff with dynamics *mf sub. espress.*, *f*, *p*, and *mf sub.*. The bottom-most staff has dynamics *ff*, *p*, and *mf espress.*. Performance markings include *pizz.* and *arco*. The time signature changes from 3/4 to 4/4.

30

Musical score for measures 30-34. The score is written for three systems of staves. The first system consists of a treble clef staff with dynamics *mf*, *p*, *ppp*, and *p sub.*. The second system consists of a bass clef staff with dynamics *mf*, *p*, and *mp sub.*. The third system consists of a treble clef staff with dynamics *p* and *mf espress.*, and a bass clef staff with dynamics *mf espress.*. Performance markings include *arco*. The time signature changes from 3/4 to 5/4.



34

half circle /quarter note

flautando

flautando

ppp sub.
(ord.)

p

p

(ord.)

mf

mf

p

p

38

ord.

p

mp

non vib.

mp

mp

non vib.

mf

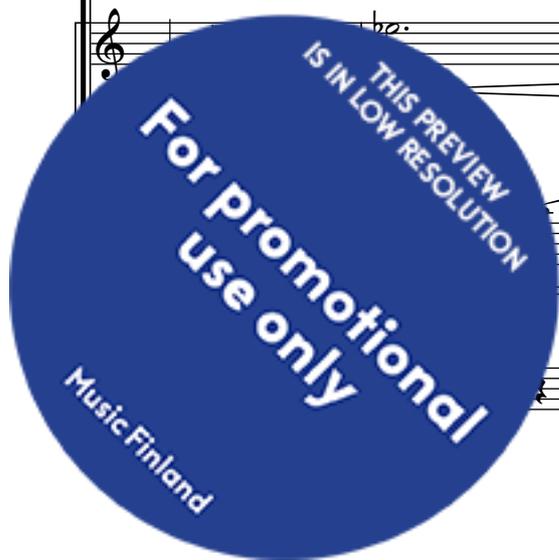
mp

II
III

non vib.

mp

pp

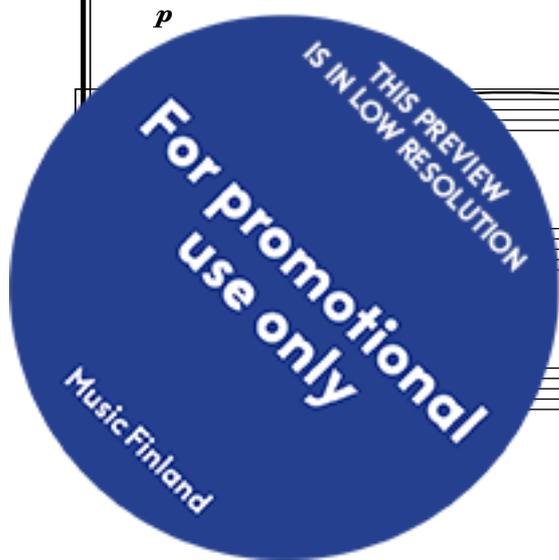


59

ord.
con vib.
III sul pont.
ord.
mp
mf *espress.*
mp
IV
3
mf
pos. ord.
mp (sub. 2nd time)
mp
p
mp sub.
mf
f
III
III
mp
mf
p
f
(sub. 2nd time)

66

p
ff
p
ff
p
ff
p
ff
p sub.
ff
ff



72

x3

p sub. *ff* *p sub.* *ff*

p sub. *ff* *p sub.* *ff*

p sub. *ff* *p sub.* *ff*

mf sub. *ff* *p sub.* *ff*

81 2 optional endings – choose one

1.

pp sub. *pppp*

pp sub. *pppp*

pp sub. *pppp*

pizz. *sfz* *sfz* *sfz* *sfz* *sfz* *sfz*

sfz *sfz* *sfz* *sfz* *sfz* *sfz*

sfz *sfz* *sfz* *sfz* *sfz* *sfz*



ca. 30"

2.

81B arco non vib.

pp small diminuendi and crescendi of ca. 4-10' during the whole bar

arco

pp small diminuendi and crescendi of ca. 4-10' during the whole bar

arco

pp small diminuendi and crescendi of ca. 4-10' during the whole bar

arco non vib.

pp small diminuendi and crescendi of ca. 4-10' during the whole bar

arco

pp small diminuendi and crescendi of ca. 4-10' during the whole bar

arco non vib.

pp small diminuendi and crescendi of ca. 4-10' during the whole bar



V. Study on Spheres

Innocent ♩ 60

Violin *con sord. arco*
p *ppp* *pp*

Viola *con sord. arco*
p *ppp* *pp*

Violoncello *p* *ppp* *pp*

11 *p* *mf* *pp* *p* *pp*

19 *take off sord.* *senza sord.*

25 *senza sord.*



30

72

ppp *pp* *mf*

ppp *p* *ppp* *mf sub.*

mf *p*

36

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

mp *mf* *f* *mp*

mp *mf* *f* *mp*

42

f *f* *ppp* *ppp* *ppp* *ppp* *ppp*

pizz. *arco*

49

96

ff *ff* *ff* *ff* *pp* *pp*

fff *pp*



57 $\text{♩} = 72$

put on sord. con sord.

put on sord. con sord.

pizz. *mf* *ffff* *f* *p*

68

non vib. *pp*

arco, on bridge no pitch, white noise only "mf" 3

non vib. *pp*

arco, on bridge no pitch, white noise only "mf" 3

arco pizz. *pp* *f sub.* *p*

75

put on sord.

arco, on bridge no pitch, white noise only con sord.

"mp" <> "mp" <>

82

arco ord. molto flaut. (very swishy)

"mf" <> molto flaut. (very swishy) arco ord. *p*

p <> molto flaut. (very swishy) arco ord. *p*

p <> *p* <>



90 $\text{♩} = 48$
sul tasto
ord.

take off sord.

senza sord.

98

ord.

ord.

ord.

103

f

f

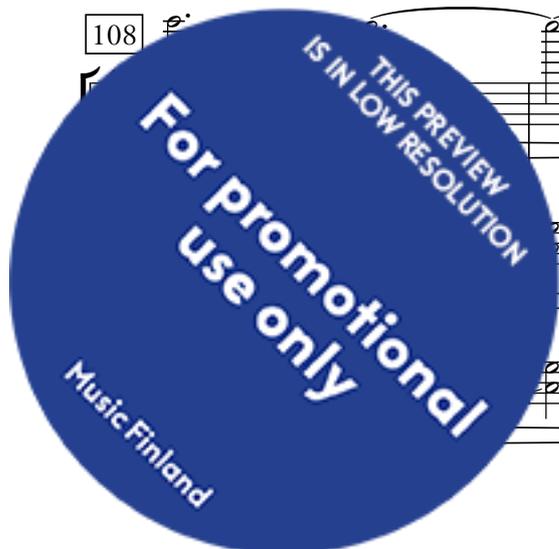
f

ff

ff

ff

108



VI. Bygones II

40

Violin *non vib.*
p

Viola *non vib.*
p

Violoncello *non vib.*
p

5

pizz. *arco* *pizz.*

sfz *sfz*

9

ppp *ppp* *ppp*

arco *p* *f* *p* *mf*

pizz. *arco* *arco* *arco*

12

pp *p*

pizz. *pizz.*



15

Musical score for measures 15-17. The score is in 3/4 time and consists of three staves: Treble, Alto, and Bass. Measure 15 starts with a *sfz* dynamic in the Treble staff and *f* in the Bass staff. Measure 16 features *mf* dynamics across all staves. Measure 17 includes *pizz.* and *arco* markings in the Treble staff and *mf* in the Bass staff. A triplet of eighth notes is marked *mf* in the Bass staff.

18

Musical score for measures 18-21. The score is in 3/4 time and consists of three staves. Measure 18 starts with *(arco) (mf)* in the Treble staff and *(arco) (mf)* in the Bass staff. Measure 19 features *sfz* in the Treble staff and *p* in the Bass staff. Measure 20 includes *pizz. ppp* in the Treble staff and *pizz. ppp* in the Bass staff. Measure 21 features *arco p* in the Treble staff and *arco p* in the Bass staff. A *ppp* dynamic is also present in the Bass staff.

22

Musical score for measures 22-24. The score is in 3/4 time and consists of three staves. Measure 22 starts with *very dreamy* in the Treble staff and *very dreamy* in the Bass staff. Measure 23 features *sfz* in the Treble staff and *p* in the Bass staff. Measure 24 includes *f p fff* in the Treble staff and *p* in the Bass staff. A *ppp* dynamic is present in the Bass staff. A *pizz.* marking is in the Treble staff and *arco* in the Bass staff.

25

Musical score for measures 25-27. The score is in 3/4 time and consists of three staves. Measure 25 features *arco* in the Treble staff and *arco* in the Bass staff. Measure 26 includes *pp* in the Treble staff and *pp* in the Bass staff. Measure 27 features *pizz. pp* in the Treble staff and *pp* in the Bass staff. A *mf* dynamic is present in the Bass staff.



VII. Lunes: Coda

Violin *f* *pizz.* x10 x10 x3

Viola *f* *pizz.*

Violoncello *f* *pizz.*

5 x5 x10 x5 x5 x5

10 x4

15 x9 x5 x5 x10



19

x6

23

(dim. during the whole 6 repetitions) x6

ppp

(dim. during the whole 6 repetitions)

ppp

(dim. during the whole 6 repetitions)

ppp

30



Appendix: Study on Spheres

without scordatura

Innocent ♩ 60

con sord.
arco

Violin

Viola

Violoncello

p *p* *ppp* *pp*

p *p* *ppp* *pp*

p *p* *ppp* *pp*

p *p* *ppp* *pp*

11

p *mf* *pp* *p* *pp*

p *mf* *pp* *p* *pp*

p *mf* *pp* *pp*

19

take off sord.

take off sord.

senza sord.

25

senza sord.



30

ppp pp mf

ppp p mf_{sub.}

ricochet I

mf p ppp

36

mp mf f mp

mp mf f mp

mp < mf f mp

42

f ppp

f ppp

f ppp

49

ff pp

ff pp

fff pp



57 $\text{♩}72$

put on sord. con sord.

put on sord. con sord.

ppp *ppp* *ffff* *f* *p*

pizz. *mf*

68

non vib. *pp*

arco, on bridge no pitch, white noise only "mf" 3

non vib. *pp* arco pizz. *f.sub.* *p*

arco, on bridge no pitch, white noise only "mf" 3

75

put on sord.

arco, on bridge no pitch, white noise only con sord.

ppp *ppp*

"mp" <> "mp" <>

82

arco ord. molto flaut. (very swishy) "mf" <>

arco ord. molto flaut. (very swishy) p <>

arco ord. molto flaut. (very swishy) p <>

p <> p <>



90 $\text{♩} = 48$
sul tasto ord.
take off sord.
senza sord.

98
ord.

103
f
ff

108

