

Mobiles

By

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A dissertation submitted in partial satisfaction of the

requirements for the degree of

Doctor of Philosophy

in

Music

and the Designated Emphasis

in

New Media

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

Professor Edmund Campion, Chair

Professor Carmine Cella

Professor Cindy Cox

Professor Franck Bedrossian

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Abstract

Mobiles

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The mobiles by the sculptor Alexander Calder are built from delicate separate pieces connected together firmly, but in a way to ensure they can move from slightest breeze of air. Hanging in the air, they turn slowly and silently revealing new shapes as they move. At the same time their shadow is changing almost organically creating endless variations on the surrounding surfaces.

The chamber ensemble piece *Mobiles* draws from the idea of endless variation and change of view point. At times the piece seems to be hanging delicately in the air, at times it grows firm roots into the ground. The first movement *Timbre*, with its gently fluctuating textures of colour change abruptly into a section of expressive instrumental solos titled *Movement*. The music is dense with attacks and sound. Gradually changing by omitting the sound tones, the texture morphs into delicate rattling noises and whispers. In the third movement *Whisperings* the different sections of the ensemble appear to be in a dialogue with each other. For this movement, and with the aid of computer assisted orchestration, I used the sound of a recorded human voice as a timbral model for the ensemble arrangements. From these fragments I gradually built a dense but delicate asymmetrical texture.

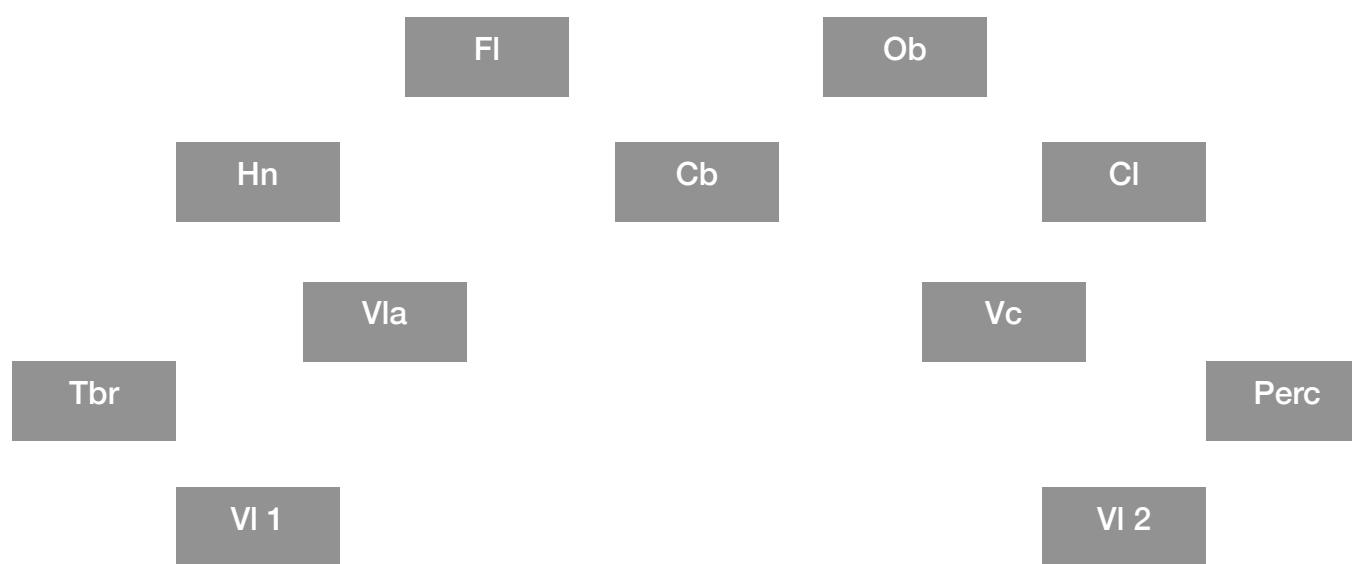
In the heart of the piece, the fourth movement *Calm*, the music stays still almost as if floating in the air. Two crystal singing bowls tuned slightly differently form a mesmerising fluctuating surface on which the other instrumental sounds float. Slowly turning and forming different shapes in the air the piece returns to its original shape. *Timbre* comes back with its gentle textures of colour with slight change of view point from the beginning. The piece ends with round and soothing multiphonics by the bass clarinet.

Score is transposing.

### List of instruments

Flute  
Oboe  
Clarinet in Bb / Bass Clarinet in Bb  
Horn in F  
Tenor Trombone  
Percussion  
2 Violins  
Viola  
Cello  
Double Bass

### Positioning of the musicians



## Explanation of signs

1/4 up

1/4 down

action dynamics

"*pp*" – "*ff*"

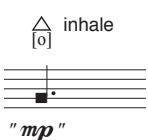
The action dynamics are marked with quotation marks. They do not indicate the loudness of the sound, but rather the 'loudness' of the movement or action: the amount of energy put into the action.

glissando

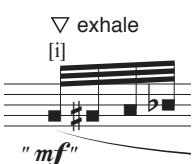
all glissandi are **in legato**, if not otherwise indicated.



inhale/exhale



inhale: triangle pointing upwards



exhale: triangle pointing downwards

## Strings

c.l.b

col legno battuto

bow wood

bow any wooden part of the instrument

slam

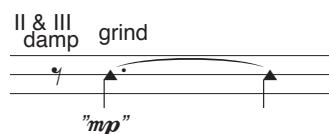


marked with triangular note head. Slam left hand fingers forcefully against the fingerboard at a given pitch.

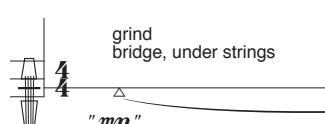
grind

a motion that resembles opening a wine bottle

place bow firmly on the indicated strings, damp the strings with the left hand. With the movement of the right hand wrist, grind the strings in a slow continuous movement as if opening a wine bottle with the cork screw. The bow moves in an oblique direction. If thinking of the body of the instrument as the face of a clock, the bow would be the hand of the clock.



Resulting sound is popping, grinding sound that also resembles a very slow vocal fry.

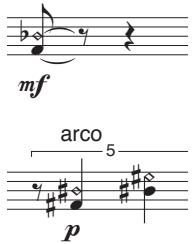


grind bridge under the strings. Place bow **under the strings**, bow hair in contact with the bridge. Press wooden part of the bow to the hair and add movement of the wrist. Resulting sound should be subtle popping and creaking sound.

## harmonics



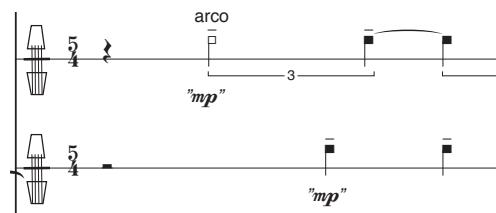
Natural harmonics are marked with **diamond notehead** and string number for placing the fingers. In this example, two harmonics are played: one on IV string, one on III string.



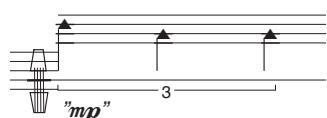
artificial harmonics are marked as usual and they sound two octaves above the lower note.

## tabulatura clef

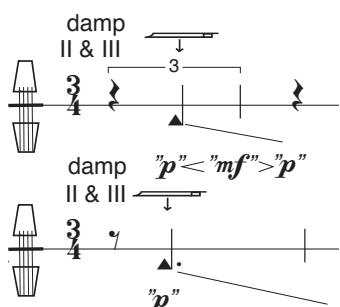
tabulatura clef shows the tailpiece (up), bridge (in the middle) and fingerboard (in the bottom)



bow tailpiece. Place bow in normal playing position on the tailpiece, add enough pressure to create a voice like, low humming sound.

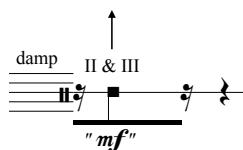


play the **yarn part of the string** behind the bridge. Add pressure as needed to create a round, a bit harsh high sound. Try to avoid heavily over pressured screeching sound. Strings are shown with 4 additional staff lines. In this example, play strings II and then III.



**con pressione**, bow on the given strings parallel to the bridge, drag in the given direction. In this example, place bow on II & III strings, damp strings with left hand and drag bow towards your left hand. This sounds like vocal fry / growl with a slow upwards glissando.

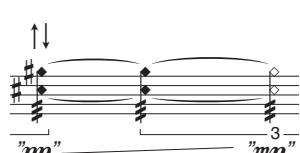
## oblique motion



single windshield wiper -motion along the strings. Move bow vertically towards your left hand, movement mostly on finger board. Bow stays on strings indicated. Add some horizontal movement as well as movement of the wrist to get better sound.

## oblique tremolo

windshield wiper -motion along the strings, movement mostly on top of the finger board. Bow stays on strings indicated. Add some horizontal movement as well as movement of the wrist to get better sound.



## Woodwinds



only air  
half air, half pitch



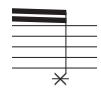
open mouthpiece —> ord.



closed mouthpiece



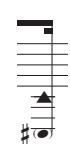
keyclick with burst of air  
"mp"



keyclick



slap tongue



tongue ram with sounding pitch in parenthesis

air and syllables

blow air through instrument. Change the shape of the mouth and the placement of the tongue f.ex. [i] —> [o]. Result is hissing sound or white noise. Different syllables will result in different kinds of timbre within the hissing sound.

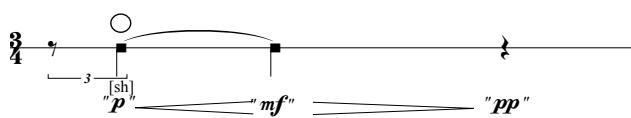
multiphonics

in general, the timbre and transition between air and pitch is more important than a solid chord. All transitions between single pitch and chord are gradual where the in-between state is the most important.

## Brass

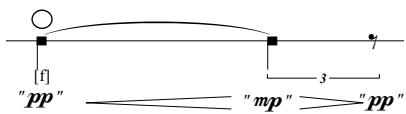
air only with [sh]

wrap lips around mouthpiece, form the letters [sh] and blow



air only with [f]

form letter "f" with teeth and bottom lip then blow



H.P.

hand pop. Use the flat of palm of the right hand and tap the normally inserted mouthpiece. Direct the bell away from body for greatest projection. Be careful not to tap too hard.

T.T.

timbral trill. Use two or more fingerings on the same pitch to produce timbral variation to the sound

only air

blow air through the instrument.

H.V.

half valved

air and syllables	blow air through instrument. Change the shape of the mouth and the placement of the tongue f.ex. [i] —> [o]. Result is hissing sound or white noise. Different syllables will result in different kinds of timbre within the hissing sound. If it helps, form syllables with [s]: [si] —> [so] etc.
interrupted airflow	blow air through the instrument and interrupt the airflow with tongue. Result sounds like a series of hand pops.

## Percussion

Instrument list:

Vibraphone

Bongos

Crotales

2 Crystal bowls in G4. They are tuned differently: 1) in A4 ≈ 440Hz, 2) A4 ≈ 432Hz

Snare drum

Maraca

Bamboo wind chimes

1 Piatto sospeso, size medium/large

regular mallets for all and a bow

Duration ca. 16 minutes

## Acknowledgements

Having the opportunity to do my graduate studies at UC Berkeley and CNMAT, with the wonderful support by the Department of Music meant a new beginning for me. During my studies, I was able to build a stronger and more resilient artistic personality on my existing musical foundation. I would like to thank especially Edmund Campion, my dissertation chair, for his unfailing support, expertise and advice in technical as well as artistic questions along the way. I would like to thank Franck Bedrossian for his kind support and mentorship throughout my career at UC Berkeley and beyond, and Carmine Celli for technical as well as artistic support especially in the electro acoustic domain. To Cindy Cox I'm most in debt for the great mentorship and support in acoustical writing especially in relationship with text. Ken Ueno showed me how creation can be a state of flow. Through his generosity and great musicianship David Milnes has given my music wings that will carry me further on my artistic path. I would like to thank CNMAT and its staff for all technical support over the years. The studies at BCNM have been fruitful and given me a completely new perspective into DIY maker culture and aesthetics.

My most important mentor and composition teacher was Paavo Heininen, with whom I built my composition technique during the bachelor and master studies in Helsinki. After many years of training, our relationship changed and he became my mentor. I'm humbled and grateful that he saw the potential in me and had the patience to walk a long road together to build me into a composer. I would also like to thank all of the music teachers who have taught me about musicianship and composing over the years. Extensive violin studies led me to understand musicianship and the side of the performer in a deep level. Most important teachers in this area were Kolbjørn Holthe and Lajos Garam. I would also like to thank Wei Cheng for a brief and intensive introduction into conducting — a path that I would like to investigate further.

Becoming an artist is an ongoing process that has been overseen by many great composers and teachers. I would like to thank Kaija Saariaho and Marco Stroppa for their kind support and mentorship over the years. I have been fortunate enough to meet up briefly and learn from composers such as Unsuk Chin, Chaya Czernowin, Rand Steiger, Jukka Tiensuu, Magnus Lindberg and Mika Pelo who all have had interesting and eye-opening points of views into composing and life.

I would like to thank my husband Eero Tiittula from the bottom of my heart for his support throughout my career at UC Berkeley. He has always believed in me and helped me through the rough patches. By taking care of our children and household, he has also given me the valuable chance to pursue my dreams in completing the Doctor of Philosophy degree. Thank you Eero, you are my rock.

Score is transposing

# MOBILES

# Timbre

$$\text{♩} = 56$$

Maija Hynninen  
2022  
dur. ca. 16 min

**dur. ca. 16 min**

**Flute**

**Oboe** *ppp*

**Clarinet in B $\flat$**  *ppp*

**Horn in F** *ppp*

**Tenor Trombone** *grind* *ord.* *"pp"* *"mp"* *"pp"* *"mp"* *\*) add slight whistle*

**Vibraphone** *motor off*

**Percussion** *ppp* *p* *pp* *ord.* *pp* *simile* *"pp"* *"mp"* *"pp"* *"mp"*

**Violin I** *pp* *II III II III simile*

**Violin II** *"pp"* *"mp"* *"pp"* *"mp"* *"pp"* *"mp"*

**Viola** *"pp"* *"mp"* *"pp"* *"mp"* *"pp"*

**Cello** *bow wood* *p* *mfp* *mfp* *p*

**Double Bass** *pp* *mfp* *pp*

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

5

"p" — "mp" — "p"

"p" — "mp" — "p"

*ppp*

f

f f f f

"pp" — "mp" slightly outside mouthp. [o] → [i]

Bongos fingertips/hands wipe w simile 5 "pp" — "mp" Crotales 5 pp mp

II & III damp ↑ "mp" c.l.b. ricochet ↑ arco ↑

II & III damp ↑ "mp" c.l.b. ricochet ↑ arco ↑

bow wood "p" — "mf" — "p" II 5 pp

II 5 pp "p" — "mf" — "p" damp II & III "mp" — "pp"

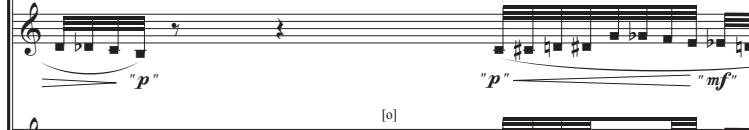
bow wood "p" — "mf" — "p" "p" — "mf" — "p" 5 "p" — "mf" — "p" 5 "p"

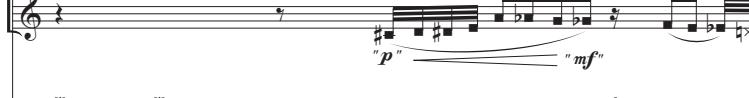
Musical score page 8, measures 8-15. The score includes parts for Flute (Fl.), Oboe (Ob.), Bassoon (B♭ Cl.), Horn (Hn.), Trombone (T. Tbn.), Percussion (Perc.), Violin I (Vln. I), Violin II (Vln. II), Cello (Vcl.), and Double Bass (D.B.).

- Flute (Fl.):** Measures 8-15. Dynamics: *ord.*, *pp*, *mp*, *pp*, *"mf"*, *"p"*.
- Oboe (Ob.):** Measures 8-15. Dynamics: *pp*, *mp*, *"p"*, *"mf"*.
- Bassoon (B♭ Cl.):** Measures 8-15. Dynamics: *pp*.
- Horn (Hn.):** Measures 8-15. Dynamics: *pp*, *mp*.
- Trombone (T. Tbn.):** Measures 8-15. Dynamics: *r*, *f*, *"pp"*, *mp*, *"pp"*, *mp*, *"pp"*.
- Percussion (Perc.):** Measures 8-15. Dynamics: *pp*. Effects: silicone mallet rub, Crystal bowl 2 (lower). Performance instructions: l.v., mp.
- Violin I (Vln. I):** Measures 8-15. Dynamics: *pp*, *mp*, *pp*, *mf*, *mp*.
- Violin II (Vln. II):** Measures 8-15. Dynamics: *pp*, *mp*.
- Cello (Vcl.):** Measures 8-15. Dynamics: *pp*, *mp*, *mf*.
- Double Bass (D.B.):** Measures 8-15. Dynamics: *pp*, *mp*, *mf*, *p*.

♩ = 84

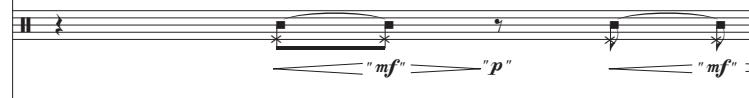
**Fl.** 13 

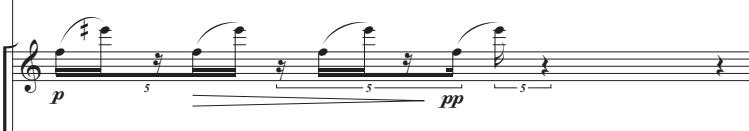
**Ob.** 

**B♭ Cl.** [o] 

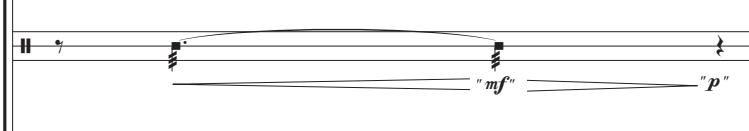
**Hn.** [i] - [i] 

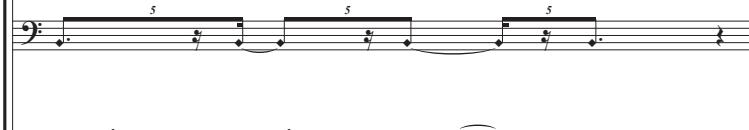
**T. Tbn.** [o] 

**Perc.** 

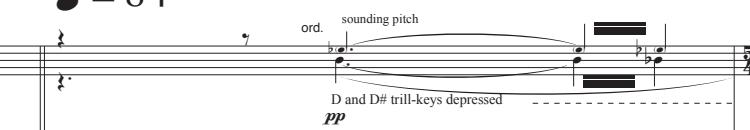
**Vln. I** 

**Vln. II** 

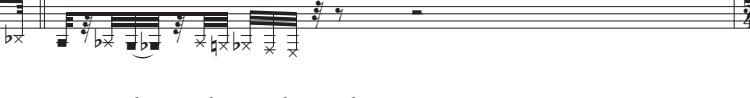
**Vla.** 

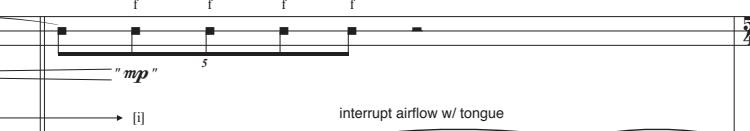
**Vc.** 

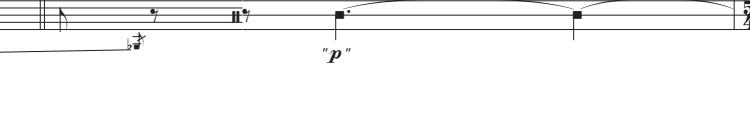
**D.B.** 

**Fl.** 

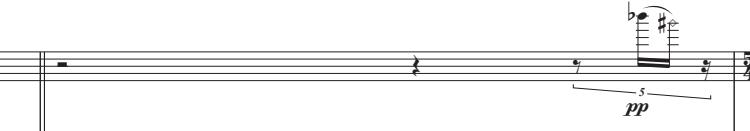
**Ob.** 

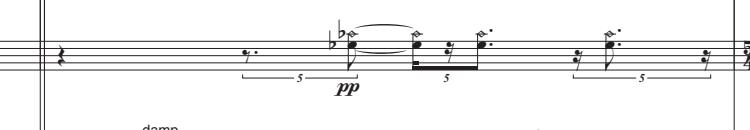
**B♭ Cl.** 

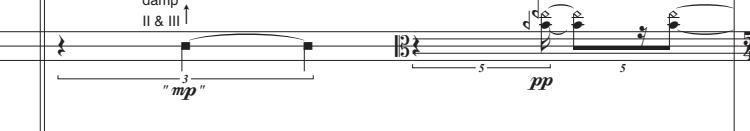
**Hn.** 

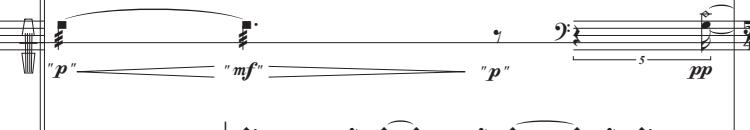
**T. Tbn.** 

**Perc.** 

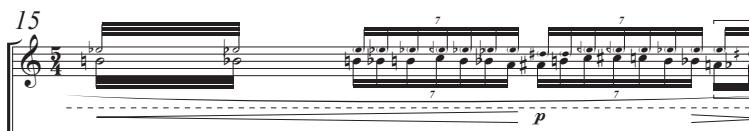
**Vln. I** 

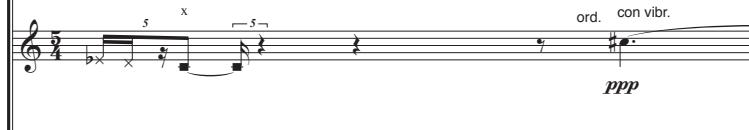
**Vln. II** 

**Vla.** 

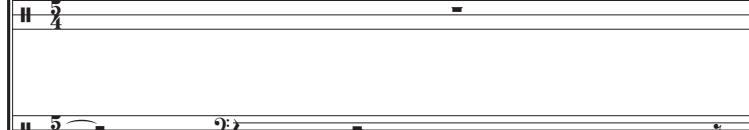
**Vc.** 

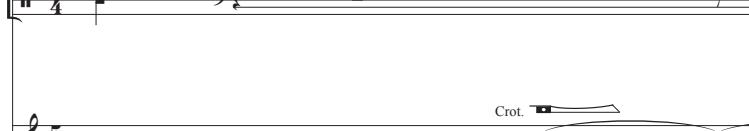
**D.B.** 

**Fl.** 15 

**Ob.** 

**B♭ Cl.** 

**Hn.** 

**T. Tbn.** 

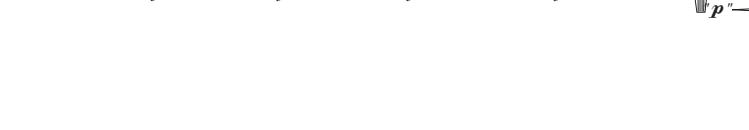
**Perc.** 

**Vln. I** 

**Vln. II** 

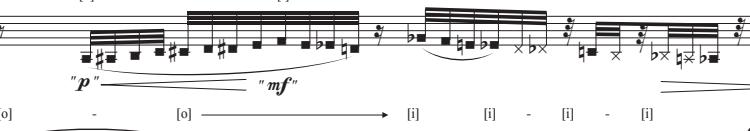
**Vla.** 

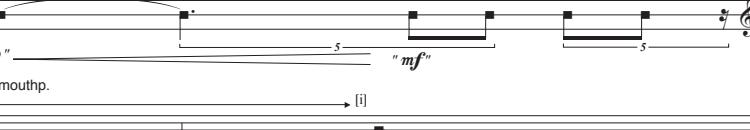
**Vc.** 

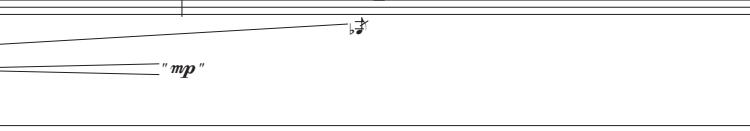
**D.B.** 

**Fl.** 

**Ob.** 

**B♭ Cl.** 

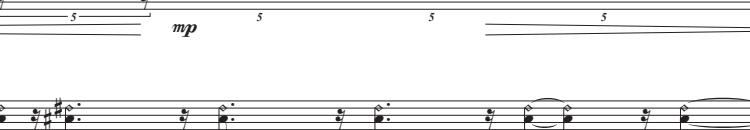
**Hn.** 

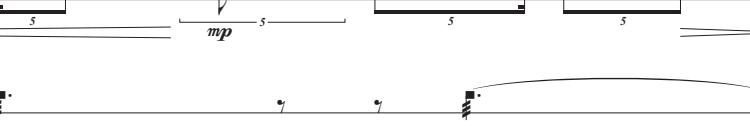
**T. Tbn.** 

**Perc.** 

**Vln. I** 

**Vln. II** 

**Vla.** 

**Vc.** 

**D.B.** 

17 *simile*

Fl. *p* *pp*

Ob. *ord.* *3* *3* *3* *3* *pp* *mp* *pp* *pp* *mp* *pp* *pp* *mp*

B♭ Cl. *x* *"mp"*

Hn. *st. mute* *ord.* *pp*

T. Tbn. *harmon mute w/ stem* *ord.* *+ -* *3* *p* *3* *pp*

Perc. *Vibraphone* *motor on, medium speed* *pp* *mp* *pp*

Vln. I *bow wood* *c.l.b. II* *III* *3* *3* *arco* *p* *pp*

Vln. II *"mf"* *"p"* *"mf"* *"p"* *fast bow, tip* *c.l.b. -* *II* *I* *3* *3* *"p"* *"mf"*

Vla. *5* *5* *5* *5* *5* *"p"* *"mf"* *"p"* *c.l.b. -* *II* *I* *3* *3* *"p"* *"mf"*

Vc. *5* *5* *5* *5* *5* *"p"* *"mf"* *"p"* *sounding pitch* *3* *3* *pp* *mp* *pp* *pp* *3* *mp*

D.B. *"mf"* *"p"* *"mf"* *"p"* *"mf"* *"p"* *"p"* *pp* *mp* *pp* *pp* *3* *mp*

Musical score page 20, measures 20-24. The score includes parts for Flute (Fl.), Oboe (Ob.), Bass Clarinet (B♭ Cl.), Horn (Hn.), Trombone (T. Tbn.), Percussion (Perc.), Violin I (Vln. I), Violin II (Vln. II), Cello (Vcl.), Double Bass (D.B.), and Bassoon (Bassoon). The score features various performance techniques such as dynamic markings (pp, p, mp, mf), articulations (bow wood, ord., rub silicone mallet, sounding pitch, A key up), and specific instrument instructions (Crystal bowl 2 (lower), bow wood, S.P.). Measure 20 starts with Flute and Oboe playing eighth-note patterns. Bass Clarinet has a sustained note with a grace note. Measure 21 shows various dynamics and articulations. Measure 22 includes a bassoon part with a grace note. Measures 23-24 show more dynamic changes and specific instrument instructions like 'Crystal bowl 2 (lower)' and 'bow wood'.

*rall al*

23

Fl.

Ob.

B. Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

Fl.

Ob.

B. Cl.

Hn.

T. Tbn.

Sing.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

$\text{♩} = 56$

26

Fl.

Ob.

B. Cl.

Hn.

T. Tbn.

Sing.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

29

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

"p" "mf"  
"pp" "mp" "pp"  
"p" "mf" "p"  
"p" < "mf" = "p"  
"pp" "pp"  
\*) density increases with the dynamics  
interrupt airflow w/ tongue  
h[0]  
interrupt airflow w/ tongue  
mp  
"pp" "mp" "pp"  
"pp" "pp"  
bow wood  
damp III & IV ↑  
grind  
"p"  
"pp" "pp"  
"mf" "p"  
"p"  
"pp" "pp"  
"mf" "p"  
"p"  
"pp" "pp"

32

Fl.

Ob.

B♭ Cl.

Hn. remove mute

T. Tbn.

Perc. Maraca spin

Vln. I

Vln. II

Vla. "mp"

Vc. "mf" → "p"

D.B. "mp" → "p"

\*) Single fingering: from single pitch to multiphonic and back.  
Legato, transition as smoothly as possible.

ord. C 249

pp

"mp" → "pp" → "mp" → "pp" → "pp"

spin

pp → mp → pp

IV

IV

damp II & III

grind

"mp"

IV

damp II & III

grind

"p" → "mf" → "p"

damp III

grind

"p" → "mf" → "p"

"pp"

"p" → "mf" → "p"

"pp"

"p" → "mf" → "p"

"pp"

Musical score for orchestra and percussion, page 35. The score includes parts for Flute, Oboe, Bassoon Clarinet, Horn, Trombone, Percussion, Violin I, Violin II, Cello, Double Bass, and Maracas. The score features complex rhythmic patterns, dynamic markings like *mf*, *p*, *pp*, and *mp*, and performance instructions such as *flz.*, *f*, *h[o]*, *H.P.*, *Crot.*, *spin*, *simile*, *S.P.*, *ord. II*, *III*, *I S.P.*, and *II*. The score is divided into measures by vertical bar lines and sections by horizontal dashed lines.

Musical score page 5, system 38. The score includes parts for Flute (Fl.), Oboe (Ob.), Bassoon (B♭ Cl.), Horn (Hn.), Trombone (T. Tbn.), Singer (Sing.), Percussion (Perc.), Violin I (Vln. I), Violin II (Vln. II), Cello (Vcl.), Double Bass (D.B.), and Maraca. The key signature is A major (no sharps or flats). The tempo is 70 BPM. The score features various dynamic markings such as *mf*, *p*, *pp*, *mp*, *ord.*, *Vibr.*, *Crot.*, and *spin*. The vocal part includes lyrics like "ord.", "[o]", and "Maraca". The double bass part includes instructions like "grind bridge, under strings". Measure 38 concludes with a repeat sign and a double bar line, indicating a section to be repeated.

**5**  
**Fl.** [a] "p" — "mf" > "p"  
**Ob.**  
**B♭ Cl.** [i] "p" — "mf" [o]  
**Hn.** "pp"  
**T. Tbn.** [o] slightly outside mouthp.  
**Perc.** "pp" — "mp" — "pp" spin  
**Vln. I** bow wood "p" — "mf" — "p"  
**Vln. II** bow wood "p" — "mf" — "p"  
**Vla.** "pp" "mp"  
**Vc.** "p" — "mf" — "p"  
**D.B.**

**5**  
**Fl.** Single fingering: from single pitch to multiphonic and back.  
 Legato, transition as smoothly as possible.  
 More focus on timbre than the pitches.  
**Ob.** ord.  
**B♭ Cl.** 140 pp — 141 mf  
**Hn.** [o] — [i] "pp" — "mp" — "pp"  
**T. Tbn.** [o] "pp"  
**Perc.** Crot. "pp" — mp Maraca spin "pp" — "mp"  
**Vln. I** damp II & III ↑ "pp"  
**Vln. II** "pp" — mp — pp "mp" ↑ "pp" — mp  
**Vla.** "pp" — mp — pp "mp" ↑ "pp" — mp  
**Vc.** "pp" — mp  
**D.B.** grind bridge, under strings "p" "pp" — mp

rall al

*Piano II*

Fl. 48

Ob.

B♭ Cl. ord. *ppp*

Hn. f f f f "mp"

T. Tbn. → [i] h[0] → [o] → [i] slightly outside mouthp. → [i] interrupt airflow w/ tongue

Perc. Crot. "pp" → "mp" Maraca spin.

Vln. I *pp* mp damp II & III ↑ c.l.b. ricochet arco ↑

Vln. II *pp* mp simile damp II & III ↑ c.l.b. ricochet arco ↑

Vla. *pp* mp damp II & III ↑

Vc. *pp* p "mf" "p" "mf" "p" damp II & III ↑

D.B. *pp* "mf" "p" bow wood "p"

$\text{♩} = 56$

accel al

55 = 84

*rall al*

Fl. ord. *pp* *mp* *pp*

Ob. *mp* *pp* *pp* *mp*

B♭ Cl. 13 *pp*

Hn. ord. st. mute *3* *3* *pp* *p* *pp* *pp* *3* *pp* *mp* *pp*

T. Tbn. ord. + *pp* *p* *pp*

Perc. *p*

Vln. I S.P. *pp* *mp* *pp* *pp* *ord.* *pp* *mp* *pp*

Vln. II S.P. *pp* *mp* *pp* *pp* *ord.* II *pp*

Vla. IV *pp* *mp* *pp* *pp* *pp* *pp* *pp* *mp* *pp* *pp* *mp*

Vc. ord. I *pp* *mp* *pp* *pp* *mp* *pp* *"p"* *"mf"* *"p"*

D.B. *bow wood* *"p"* *3* *"mf"*

58

$\text{♩} = 56$

Fl.

Ob.

B♭ Cl.

Hn. remove mute open

T. Tbn.

Sing.  $\text{pp}$  \*) Aim for a compound sound that has beatings.  
The played and sung pitch should create roughness to the sound.

Perc. rub  $\text{ppp}$  Crystal bowl 2 (lower)

Vln. I  $\text{mp}$   $\text{pp}$   $\text{mp}$   $\text{pp}$   $\text{ppp}$   $\text{p}$   $\text{pp}$

Vln. II  $\text{mp}$   $\text{pp}$   $\text{ppp}$   $\text{p}$   $\text{ppp}$   $\text{p}$   $\text{ppp}$

Vla.  $\text{pp}$   $\text{mp}$   $\text{pp}$   $\text{pp}$   $\text{pp}$   $\text{p}$   $\text{pp}$

Vc.  $\text{pp}$   $\text{mp}$   $\text{pp}$   $\text{pp}$   $\text{pp}$   $\text{p}$   $\text{mf}$   $\text{p}$

D.B.  $\text{p}$   $\text{p}$   $\text{mf}$   $\text{p}$   $\text{mf}$   $\text{p}$

64

Fl. - "p" "mf" "p" ≈ 5-7"

Ob. - "p" "mf" "mp" "mf" "mf" "mp" ≈ 5-7"

B♭ Cl. - [o] - [i] ≈ 5-7"

Hn. - "p" "mf" "f" "f" "f" ≈ 5-7"

T. Tbn. - "pp" "pp" "p" "mf" ≈ 5-7"

Perc. - *pp* *mp* *lv.* *pp* *mp* ≈ 5-7"

Vln. I - "mf" "p" "mf" "p" ≈ 5-7"

Vln. II - ≈ 5-7"

Vla. - "mf" "p" "mf" "p" ≈ 5-7"

Vc. - bow wood "p" "mf" "p" ≈ 5-7"

D.B. - "mf" "p" ≈ 5-7"

Crystal bowl solo:  
- both bowls in different tunings,  
- the G4 should fluctuate (create beatings)

68

Fl. [o] "p" "mf" "mp" [o] [i]

Ob. ord.

B♭ Cl. [o] "p" "mf"

Hn. H.V. [o] → [i] ord. H.V.

T. Tbn. slightly outside mouthp. [o] - [o] → [i] pp p ord.

Vibraphone wipe, w/ stick or shaft "p" "mf" black keys white keys

Perc. ♫

Vln. I IV pp mp pp

Vln. II IV pp mp pp bow wood "p" "mf"

Vla. IV ↑ pp mp pp mp pp

Vc. IV pp mp pp pp

D.B. I pp mp pp pp mp pp

\*) Aim for a compound sound that has beatings. The played and sung pitch should create roughness to the sound.

71

accel al

Fl. [o] inhale "mp" [i] exhale

Ob. [o] inhale "mf" [i] exhale

B♭ Cl. [o] "mp" [i] exhale

Hn. f pp mp pp

T. Tbn. Sing. mf p

Perc. dampen singing bowls Vibraphone wipe, w/ stick or shaft "p" "mf" black keys white keys

Vln. I 3 mp pp 3 mp pp

Vln. II 3 p 3 mp pp

Vla. IV ↑ grind

Vc. bow wood "mp" mp pp p

D.B. bow wood "p" mp pp mp mp pp

♩ = 84

74

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

Vibraphone

ord.

*\*) Single fingering: from single pitch to multiphonic and back.  
Legato, transition as smoothly as possible.*

wipe,  
w/ stick or shaft

motor on,  
medium speed

S.P.

S.P.

S.P.

S.P. III

bow wood

77

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Sing

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

Vibraphone

ord.

C key up

ord.

ord. III

79

Fl. *mp > p* *pp* *mp pp*

Ob. *"mf"*

B♭ Cl. *"p"* *"mf"* *"p"* *"mf"*

Hn. *pp* [o] *[i]* *ord. H.V.*

T. Tbn. *"p"* *slightly outside mouthp.* *[o]* *[i]* *ord. f* *f* *f* *f*

Perc. *Crot.* *mp* *pp*

Vln. I *"p"* *"mf"* *"p"* *"p"* *"mf"* *"p"* *"p"*

Vln. II *"p"* *"mf"* *"p"* *"mf"* *"p"* *"mf"* *"p"*

Vla. *mp* *pp* *mp* *pp* *mp* *pp* *mp* *pp*

Vc. *mp* *pp* *mp* *pp* *mp* *pp*

D.B. *pp* *mp* *pp* *pp* *"p"* *"mf"* *"p"*

*rall al* *♩ = 56*

81

Fl. *D trill-key depressed* *pp* *mp* *pp* *p*

Ob. *ord.*

B♭ Cl. *ord.* *18* *pp* *6*

Hn. *p* *pp*

T. Tbn. *harmon mute w/ stem* *pp* *ord.* *+* *sing* *[a]* *pp*

Perc. *Crystal bowl 1, higher* *ppp* *Crystal bowl 2 (lower)* *ppp*

Vln. I *"mf"* *"p"* *ord. II* *pp* *mp* *pp* *mp*

Vln. II *"mf"* *"p"* *S.P.* *mp* *pp* *mp* *pp*

Vla. *pp* *"mf"* *"p"* *"mf"* *"p"*

Vc. *pp* *mp* *pp* *"mf"* *"p"* *"mf"* *"p"*

D.B. *IV* *pp* *mp* *pp* *pp* *mp* *pp* *pp* *mp*

*accel al*

Fl.

Ob.

B. Cl.

Hn.

T. Tbn.

Sing.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

84

ord. +

[o] [i]

"p" "mf"

"p" "mf"

interrupt airflow w/ tongue

Vibraphone motor on, fast speed

p

l.v.

$\text{♩} = 84$

Fl.

Ob.

B. Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

86

[o] → [i]

"mp" "f" "mp"

remove mute

open

f f f f

lip wrap [o] [o] [o]

"mp" 3 "p"

Bongos w

w w w w

↑↑

III

IV ppp

bow wood

"p" "mf" "p" 3 "pp"

bow wood

"p" "mf" "p"

↑↑

↑↑

pp

pp

pp

pp

# <sup>6</sup> — Movement

$\text{♩} = 126$

89 ord.

Fl. *ff* 2 4 2 D#

Ob. *ff*

B♭ Cl. F C 225

Hn. f f f f "pp" — "mp" "p"

T. Tbn. f f f f "pp" — "mp" 5 "p"

Perc. w *mp* — "pp" p — *mf* — *p*

Vln. I bow wood "pp" — "mp" — "pp"

Vln. II "pp" — "mp" — "pp"

Vla. "pp" — "mp" — "pp" 1 "p" — "mf" — "p"

Vc. bow wood "pp" — "mp" — "pp"

D.B. "f" "mf" — "ff" "f" "mf" — "ff"

Clarinet 6 6 6 "pp" — "mp"

h[o] "pp"

95

Fl. *mf*

Ob. *sfz pp* C# 152

B♭ Cl. 12 *sfz pp f*

Hn. *mf*

T. Tbn. *mf* *sfz pp*

Perc. *mp* *f* lift mallet *p* *mf*

Vln. I *mf* *f* *mp p mp p*

Vln. II *mf* *f* *mp p mp p*

Vla. *mf* *f* bow wood *"mp"* *"p"* *"mf"* *"p"*

Vc. *mp* *mf* *f* bow wood *"mp"* *"p"* *"mf"* *"p"*

D.B. *"mp"* *"pp"*

98

Fl.

Ob. *ff*

B♭ Cl. *ff pp f mp ff pp f*

Hn.

T. Tbn.

Perc. *mf* *f* *mp*

Vln. I *mp p mp p* *sfz p* *mf*

Vln. II *mp p mp p* *sfz p* *mf*

Vla. *"mp"* *"p"* *"mf"* *"p"* *p* *mf*

Vc. *"mp"* *"p"* *"mf"* *"p"*

D.B. *mp p mp p mp p*

101

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

105

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

112

Fl. *mp*

Ob. *mf pp*

B♭ Cl. *mf pp*

Hn. *pp*

T. Tbn. *pp*

Perc. *mp*

Vln. I *sfp*

Vln. II *mf*

Vla. *pp*

Vc. *ff*

D.B. *bow wood*

116

Fl. — | 3 5:3 **p** | 5:3 — | —

Ob. f 3 5:3 | > p 5:3 | — | —

B♭ Cl. — | 3 5:3 | — | [o] —

Hn. — | f f f f f ord. | sfz pp mp pp sfz pp | mf sing [o]

T. Tbn. — | 3 5:3 | — | f

Perc. — | b p — | —

Vln. I — | 3 5:3 | f | "mf" 5:3 | —

Vln. II — | > f | — | "mf" 5:3 | "mp"

Vla. — | > f | — | "mf" 5:3 | "mp" c.l.b. IV

Vc. — | > f | — | sfz pp | mf p

D.B. — | 3 5:3 | — | "mp"

123

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Sing.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

Flute: muta in clarinetto basso

Horn: H.V. (mf) — (f) — (mp) — (o) — (mf) — (f) — (mp) — (o) — (mf) — (f) — (mp) — (o)

Tuba: (continuous gliss.)

Singer: (mf) — (ff) — (mf) — (ff) — (mf) — (ff) — (mf) — (ff)

Bongos: (w) — (w) — (w) — (w) — (w)

Vibr. (mf) — (pp) — (mf) — (pp) — (mf) — (pp) — (mf) — (pp)

Vln. I: bow wood (mf) — (p) — (mf) — (p) — (mf) — (p) — (mf) — (p)

Vln. II: bow wood (mf) — (p) — (mf) — (p) — (mf) — (p) — (mf) — (p)

Vla: (p) — (mf) — (p) — (mf) — (p) — (mf) — (p) — (mf) — (p)

Vc: III (mf) — IV (ff) — (f) — (mf) — (p)

D.B.: III (mf) — IV (ff) — (mf) — (p)

126

Fl. [i] [i] [i] 5 [i] [i] [i] "mf" "mp"

Ob. "mf" "mp" "mp" "mf"

Bass Clarinet [o] [i] "mp" "mp" "mf"

Hn. "mp"

T. Tbn. [i] "mp"

Perc. Bongos tap w/ fingertips w "mp"

Vln. I 5

Vln. II 5

Vla. "mp" 3

Vc. bow wood c.l.b. "mf" 5 "mp" 5

D.B. "p" 5 "p" 5

# Gathering

129 [o] —————— [i]

Fl.

Ob.

B♭ Cl. [M] multiphonic gliss.  
as loud/distorted,  
and expressive as you can  
*mp ff ff*

Hn. *f s*

T. Tbn. *f s* *mf s* *p mf*

Perc. *w w w w* *mf p* *w w w* *p*

Vln. I *"mf"* damp I & II *"p"* (single movement) IV *"mp"*

Vln. II *"mf"*

Vla. *"p"* *"mp"*

Vc. *"mp"* damp II & III *"mf"* *"p"* *"mf"* *"p"*

D.B. *"p"* damp II & III *"mp"* *"p"*

132

Fl.

Ob.

B♭ Cl. (as loud as possible)

Hn. *f s* *mf*

T. Tbn. *mp f s* *mf*

Perc. *w w w w* Crot. *pp*

Vln. I damp IV *"mp"* damp II & III *"mf"* damp II & III *"mf"* damp III *"mp"* bow wood

Vln. II *"mf"* *"mp"* *"mf"* *"mf"* *"mp"* *"mf"* *"mf"*

Vla. *"mf"* *"mp"* *"mf"* *"mf"* *"mf"* *"mf"*

Vc. *"mf"* damp II & III *"mf"* *"mf"* *"mf"* *c.l.b.*

D.B. *"mf"* *"mf"* *"mf"*

134 ord.

Fl. ff

Ob. ff

B♭ Cl.

Hn. f f f f [o] [o]

T. Tbn. f f f f [o] [o]

Perc. mp

Vln. I ff "mf" ff

Vln. II p mf p

Vla. "mp" mf grind

Vc. 3 "mp" 1 grind bridge, under strings

D.B. "mp"

136

Fl. 2 3 4 D#

Ob. ff

B♭ Cl.

Hn. i [o] sh f f f f

T. Tbn. i p pp h[0] [o] [o] [o] p

Perc. pp mp

Vln. I 3 mp mf

Vln. II ff mf

Vla. IV mp c.l.b. IV damp II & III c.l.b. mp

Vc. 3 mp

D.B. △ p mf

139

Fl. "mf" "mp" [o] s[a] [i] "p" ord. *mf pp*

Ob. x x x x "p" ord. *mf pp*

B. Cl. *pp* "mf" "p" "mf" "mf" "mp" ord. *mf pp*

Hn. H.P. "p" "mf" remove mute *mf pp*

T. Tbn. [o] \*) "p" \*) lip wrap "mf" "p"

Perc. Bongos tap w/ fingertips Vibr. *mp* *mp*

Vln. I

Vln. II III IV *sfz* *sfz*

Vla.

Vc. II III *mf* II III *ff*

D.B. bow wood "p" "mp"

142

Fl. "mp" *mf pp* *p*

Ob. "mp" *mf pp*

B. Cl. "mp" *mf pp* *p* "mp"

Hn. f f f f "p" *mp*

T. Tbn. "pp" "mp" "p"

Perc. *mp* *mp*

Vln. I

Vln. II S.P. 5 ord. *f ff* "mf" "mp" *mp*

Vla. II *pp* "mp"

Vc. III IV *mp* "f" III *mf* "ff" "mf" "mp" c.l.b. III II *mp*

D.B. III *pp* "p" "mf" "p" "mp"

145

Fl.

Ob.

B. Cl.

Hn.

T. Tbn.

Crot.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

Bongos fingertips/hands w

148

Fl.

Ob.

B. Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

s[i]

[a]

sh

bow wood

151

5 — 6  
♩ = ♩ = 105

154

158

Bongos      tap w/ fingertips      Bamboo chimes      tap w/ fingertips, use both hands.

Perc.

Vln. I      Vln. II      Vla.      Vc.      D.B.

**Whisperings**

161

Vln. I      Vln. II      Vla.      Vc.      D.B.

164

Fl. s[i] [i] [o] x [i]

Ob. "mp" "p" "mf" "p" "mf" p  $\sharp$

B♭ Cl. "mp" p "mf"

Hn. [o] [i] ord. slap  
"pp" "mp" "pp" mp

T. Tbn. [i] H.P. [i] \*) lip wrap \*) [o]  
"pp" "p" "pp" "mp"

Perc. w p 3 mp p 3 mp w

Vln. I 3 c.l.b.

Vln. II 3 mp "mf"

Vla. 3 c.l.b. IV arco 3 p "mf" III c.l.b.

Vc. 3 "mf"

D.B. 3 "mf"

170

Fl. s[i] △ "mf" "mp"

Ob. x x "mp" "p"

B♭ Cl. x [i] "mf" "pp"

Hn. [o] → [i] "p" "mf" "mp" "mf" f H.P.

T. Tbn. → [i] sh > 3 "mf" 3 "p" h[i]

Perc. w "p" "mf" "p" ricochet "mp" let stick bounce on shaft of the other

Vln. I

Vln. II

Vla. c.l.b. I "mp" "mf" p III

Vc. IV c.l.b. I "mf" "p" IV

D.B. 3 "p" c.l.b. II & III "mf" "p" grind

173

Fl. k[a] *mp*

Ob. [o] → [i] s[i] "p" "mf" x "mf" x x x

B♭ Cl. [i] → [o] "mp" "pp"

Hn. H.P. [o] → [i] "pp" "mp" > "pp" [i] → [o]

T. Tbn. \*) slightly outside mouthp. "p" "mf" "p"

Perc. w "pp" "mp" "pp" Bongos w 3 mp

Vln. I c.l.b. IV "mp" "mf" "mf"

Vln. II c.l.b. IV "mf" "p"

Vla. c.l.b. I "mp" "mf" "p" c.l.b. III

Vc. c.l.b. III "p" "mp"

D.B. c.l.b. I "mp" "mf"

176

Fl.

Ob.

B. Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

179

Fl.

Ob.

B. Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

182

Fl. [i] - [i] → [o]

Ob.

B♭ Cl. x [o] → [i]

Hn. H.P. [o] - [o] → [i]

T. Tbn. open [i] → [o] slap

Perc. Snare drum snares on *w* ricochet  
*mp* let stick bounce on shaft of the other

Vln. I "mf"

Vln. II "mf"

Vla.

Vc. "p"

D.B.

185

Fl. s[a] s[a] s[a] [a] [i] [a] △ [a]

Ob. x 6 x x

B♭ Cl. x x p "mf"

Hn. H.P. "mp" 3

T. Tbn.

Perc. Bongos *mp* *p* *pp* *mp* *pp*

Vln. I IV

Vln. II mp III ↑

Vla. IV pp mp pp bow wood

Vc. "p" "mf" "p"

D.B. "mf"

188

Fl.

Ob.

B. Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

191

Fl.

Ob.

B. Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

198

Fl. [i] - [i] → [o] "mf" h[a] 3 [o] → [i] "pp" "mp" "pp"

Ob. "p" "mf" "p" h[a] [i] "pp" "mp" "pp"

B♭ Cl. "mp" "pp"

Hn. H.P. "mp"

T. Tbn. interrupt airflow w/ tongue "pp" mp pp slightly outside mouthp. [i] - [i]

Perc. Bongos fingertips/hands w "pp" mp pp

Vln. I IV 3 "pp" < "mp" = "pp"

Vln. II III "pp" = "mp" = "pp"

Vla. II "p" "mf" = "p" "mp"

Vc. "pp" "mp" grind bridge, under strings "pp" "mp" "pp"

D.B. "mp" "pp" "p" "pp" "mp" "pp"

202

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

[i] "p" — "mf" — "p"

▽ [o] "p" — "mf" — "p"

[o] — [i] "mp"

△ [i] "mp"

f f f [i] "mp"

"pp" "mp" "p" "mp"

→ [o] [o] "pp" "mf" "p"

w "p" "pp" "mp"

II & III ↑ "p" — "mf" — "p"

IV ↑ "p" — "mf" — "p"

bow wood "f"

"p"

II & III ↑ "p" — "mf" — "p"

"p" — "mf" — "p"

"p"

(lift bow) "mp"

grind bridge, under strings "p"

pp — mp — pp

206

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

ord. "pp" — "p" — "pp" C#

C# C [2/3] 2/3 3/4 "pp"

→ [o] "pp"

[o] "pp"

sh "mf"

Bamboo chimes tap w/ fingertips, use both hands "p"

"pp"

III ↑ IV "pp" — "mp" — "pp"

III ↑ IV "pp" — "mp" — "pp"

bow wood "p" — "mp" — "pp"

"mp" — "p"

III ↓ "pp" — "mp" — "pp"

"pp" — "mp" — "pp"

"mp" — "pp"

mp — pp "mf" — "p"

210

Fl.  $\text{pp}$

Ob. [i] "p" "mf" "p"

B♭ Cl. [o] [i] "mp" "pp"

Hn. h[o] lip wrap [a] "mf" "p" harmon mute w/ stem simile

T. Tbn. Crystal bowl 1, higher rub  $p$

Perc. Crystal bowl 2 (lower) rub  $ppp$

Vln. I bow wood "mp" "pp"

Vln. II bow wood "p" "mf" "p"

Vla. III  $p$

Vc. grind "mp"

D.B. bow wood "pp" "mp" "pp"

214

Fl. attach reed

Ob.

B♭ Cl. ord.  $pp$

Hn.

T. Tbn.

Perc.  $p$   $pp$   $ppp$   $mp$   $mp$

Vln. I  $p$   $ppp$   $p$   $ppp$

Vln. II  $p$   $ppp$   $p$   $ppp$

Vla. III  $ppp$   $p$   $ppp$

Vc. III  $ppp$

D.B. I  $ppp$   $p$   $ppp$  (sounding pitch)  $pp$

218

T.T.

Fl. *ppp*

Ob.

B♭ Cl. *p* *pp* *mp* *pp* *p* *ppp*

Hn. *ord. H.V.* *3* *3* *3* *3* *3* *3*

T. Tbn. *pp*

Sing. *pp* *mp*

Perc. *Crystal bowl 1, higher* *rub* *ppp*

Vln. I *ppp*

Vln. II *ppp*

Vla. *IV* *ppp*

Vc.

D.B.

222

Fl. *ord. T.T.*

Ob. *ppp* *p* *ppp*

B♭ Cl.

Hn.

T. Tbn. *pp* *p*

Perc. *mp* *pp* *Crystal bowl 2 (lower)* *rub* *ppp* *ppp* *ppp*

Vln. I *ppp* *p* *ppp*

Vln. II *ppp* *p* *ppp*

Vla. *III* *ppp* *p* *ppp*

Vc. *III* *ppp* *p* *ppp*

D.B. *ppp* *p* *ppp*

225

<img alt="Musical score for orchestra and choir, page 225. The score includes parts for Flute, Oboe, Bassoon, Clarinet, Horn, Trombone, Percussion, Violin I, Violin II, Viola, Cello, Double Bass, and Soprano. The score shows various dynamic markings like pp, mp, mf, and p, along with performance instructions such as 'remove mute' for Trombone, 'lift bow' for Violin I, and 'grind' for Viola. The vocal part for Soprano includes lyrics in square brackets: [i], [o], [i] → [o], and [o]. Measure numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 5810, 5811, 5812, 5813, 5814, 5815, 5816, 5817, 5818, 5819, 5820, 5821, 5822, 5823, 5824, 5825, 5826, 5827, 5828, 5829, 5830, 5831, 5832, 5833, 5834, 5835, 5836, 5837, 5838, 5839, 5840, 5841, 5842, 5843, 5844, 5845, 5846, 5847, 5848, 5849, 5850, 5851, 5852, 5853, 5854, 5855, 5856, 5857, 5858, 5859, 5860, 5861, 5862, 5863, 5864, 5865, 5866, 5867, 5868, 5869, 58610, 58611, 58612, 58613, 58614, 58615, 58616, 58617, 58618, 58619, 58620, 58621, 58622, 58623, 58624, 58625, 58626, 58627, 58628, 58629, 58630, 58631, 58632, 58633, 58634, 58635, 58636, 58637, 58638, 58639, 58640, 58641, 58642, 58643, 58644, 58645, 58646, 58647, 58648, 58649, 58650, 58651, 58652, 58653, 58654, 58655, 58656, 58657, 58658, 58659, 58660, 58661, 58662, 58663, 58664, 58665, 58666, 58667, 58668, 58669, 58670, 58671, 58672, 58673, 58674, 58675, 58676, 58677, 58678, 58679, 58680, 58681, 58682, 58683, 58684, 58685, 58686, 58687, 58688, 58689, 58690, 58691, 58692, 58693, 58694, 58695, 58696, 58697, 58698, 58699, 586100, 586101, 586102, 586103, 586104, 586105, 586106, 586107, 586108, 586109, 586110, 586111, 586112, 586113, 586114, 586115, 586116, 586117, 586118, 586119, 586120, 586121, 586122, 586123, 586124, 586125, 586126, 586127, 586128, 586129, 586130, 586131, 586132, 586133, 586134, 586135, 586136, 586137, 586138, 586139, 586140, 586141, 586142, 586143, 586144, 586145, 586146, 586147, 586148, 586149, 586150, 586151, 586152, 586153, 586154, 586155, 586156, 586157, 586158, 586159, 586160, 586161, 586162, 586163, 586164, 586165, 586166, 586167, 586168, 586169, 586170, 586171, 586172, 586173, 586174, 586175, 586176, 586177, 586178, 586179, 586180, 586181, 586182, 586183, 586184, 586185, 586186, 586187, 586188, 586189, 586190, 586191, 586192, 586193, 586194, 586195, 586196, 586197, 586198, 586199, 586200, 586201, 586202, 586203, 586204, 586205, 586206, 586207, 586208, 586209, 586210, 586211, 586212, 586213, 586214, 586215, 586216, 586217, 586218, 586219, 586220, 586221, 586222, 586223, 586224, 586225, 586226, 586227, 586228, 586229, 586230, 586231, 586232, 586233, 586234, 586235, 586236, 586237, 586238, 586239, 5862310, 5862311, 5862312, 5862313, 5862314, 5862315, 5862316, 5862317, 5862318, 5862319, 5862320, 5862321, 5862322, 5862323, 5862324, 5862325, 5862326, 5862327, 5862328, 5862329, 58623210, 58623211, 58623212, 58623213, 58623214, 58623215, 58623216, 58623217, 58623218, 58623219, 58623220, 58623221, 58623222, 58623223, 58623224, 58623225, 58623226, 58623227, 58623228, 58623229, 58623230, 58623231, 58623232, 58623233, 58623234, 58623235, 58623236, 58623237, 58623238, 58623239, 586232310, 586232311, 586232312, 586232313, 586232314, 586232315, 586232316, 586232317, 586232318, 586232319, 586232320, 586232321, 586232322, 586232323, 586232324, 586232325, 586232326, 586232327, 586232328, 586232329, 586232330, 586232331, 586232332, 586232333, 586232334, 586232335, 586232336, 586232337, 586232338, 586232339, 586232340, 586232341, 586232342, 586232343, 586232344, 586232345, 586232346, 586232347, 586232348, 586232349, 586232350, 586232351, 586232352, 586232353, 586232354, 586232355, 586232356, 586232357, 586232358, 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5862323145, 5862323146, 5862323147, 5862323148, 5862323149, 5862323150, 5862323151, 5862323152, 5862323153, 5862323154, 5862323155, 5862323156, 5862323157, 5862323158, 5862323159, 5862323160, 5862323161, 5862323162, 5862323163, 5862323164, 5862323165, 5862323166, 5862323167, 5862323168, 5862323169, 5862323170, 5862323171, 5862323172, 5862323173, 5862323174, 5862323175, 5862323176, 5862323177, 5862323178, 5862323179, 5862323180, 5862323181, 5862323182, 5862323183, 5862323184, 5862323185, 5862323186, 5862323187, 5862323188, 5862323189, 5862323190, 5862323191, 5862323192, 5862323193, 5862323194, 5862323195, 5

231

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Sing.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

C♯ C B

ord.

H.V.

rub

Crystal bowl 2 (lower)

pp

p

ord.

II

pp

S.P.

light bow

pp

IV

pp

pp

pp

pp

pp

pp

234

<img alt="Musical score for orchestra and choir, page 234. The score includes parts for Flute, Oboe, Bassoon Clarinet, Horn, Trombone, Percussion, Violin I, Violin II, Cello, Double Bass, and Crystal Bowls. The score shows various dynamics like pp, p, mp, andCrystal bowl 1, higher ppp. Measures include 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 609, 610, 611, 612, 613, 614, 615, 616, 616, 617, 618, 619, 619, 620, 621, 622, 623, 624, 625, 625, 626, 627, 628, 629, 629, 630, 631, 632, 633, 634, 634, 635, 636, 637, 638, 638, 639, 639, 640, 641, 642, 643, 643, 644, 645, 646, 646, 647, 647, 648, 649, 649, 650, 651, 652, 653, 653, 654, 655, 656, 656, 657, 657, 658, 659, 659, 660, 661, 662, 663, 663, 664, 665, 666, 666, 667, 667, 668, 669, 669, 670, 671, 672, 673, 673, 674, 675, 676, 676, 677, 677, 678, 679, 679, 680, 681, 682, 683, 683, 684, 685, 686, 686, 687, 687, 688, 689, 689, 690, 691, 692, 692, 693, 693, 694, 695, 695, 696, 696, 697, 698, 698, 699, 699, 700, 701, 701, 702, 702, 703, 704, 704, 705, 705, 706, 707, 707, 708, 708, 709, 709, 710, 711, 711, 712, 712, 713, 714, 714, 715, 715, 716, 717, 717, 718, 718, 719, 719, 720, 721, 721, 722, 722, 723, 724, 724, 725, 725, 726, 727, 727, 728, 728, 729, 729, 730, 731, 731, 732, 732, 733, 734, 734, 735, 735, 736, 737, 737, 738, 738, 739, 739, 740, 741, 741, 742, 742, 743, 744, 744, 745, 745, 746, 747, 747, 748, 748, 749, 749, 750, 751, 751, 752, 752, 753, 754, 754, 755, 755, 756, 757, 757, 758, 758, 759, 759, 760, 761, 761, 762, 762, 763, 764, 764, 765, 765, 766, 767, 767, 768, 768, 769, 769, 770, 771, 771, 772, 772, 773, 774, 774, 775, 775, 776, 777, 777, 778, 778, 779, 779, 780, 781, 781, 782, 782, 783, 784, 784, 785, 785, 786, 787, 787, 788, 788, 789, 789, 790, 791, 791, 792, 792, 793, 794, 794, 795, 795, 796, 797, 797, 798, 798, 799, 799, 800, 801, 801, 802, 802, 803, 804, 804, 805, 805, 806, 807, 807, 808, 808, 809, 809, 810, 811, 811, 812, 812, 813, 814, 814, 815, 815, 816, 817, 817, 818, 818, 819, 819, 820, 821, 821, 822, 822, 823, 824, 824, 825, 825, 826, 827, 827, 828, 828, 829, 829, 830, 831, 831, 832, 832, 833, 834, 834, 835, 835, 836, 837, 837, 838, 838, 839, 839, 840, 841, 841, 842, 842, 843, 844, 844, 845, 845, 846, 847, 847, 848, 848, 849, 849, 850, 851, 851, 852, 852, 853, 854, 854, 855, 855, 856, 857, 857, 858, 858, 859, 859, 860, 861, 861, 862, 862, 863, 864, 864, 865, 865, 866, 867, 867, 868, 868, 869, 869, 870, 871, 871, 872, 872, 873, 874, 874, 875, 875, 876, 877, 877, 878, 878, 879, 879, 880, 881, 881, 882, 882, 883, 884, 884, 885, 885, 886, 887, 887, 888, 888, 889, 889, 890, 891, 891, 892, 892, 893, 894, 894, 895, 895, 896, 897, 897, 898, 898, 899, 899, 900, 901, 901, 902, 902, 903, 904, 904, 905, 905, 906, 907, 907, 908, 908, 909, 910, 910, 911, 911, 912, 913, 913, 914, 914, 915, 916, 916, 917, 917, 918, 919, 919, 920, 920, 921, 922, 922, 923, 923, 924, 925, 925, 926, 926, 927, 928, 928, 929, 929, 930, 931, 931, 932, 932, 933, 934, 934, 935, 935, 936, 937, 937, 938, 938, 939, 939, 940, 941, 941, 942, 942, 943, 944, 944, 945, 945, 946, 947, 947, 948, 948, 949, 949, 950, 951, 951, 952, 952, 953, 954, 954, 955, 955, 956, 957, 957, 958, 958, 959, 959, 960, 961, 961, 962, 962, 963, 964, 964, 965, 965, 966, 967, 967, 968, 968, 969, 969, 970, 971, 971, 972, 972, 973, 974, 974, 975, 975, 976, 977, 977, 978, 978, 979, 979, 980, 981, 981, 982, 982, 983, 984, 984, 985, 985, 986, 987, 987, 988, 988, 989, 989, 990, 991, 991, 992, 992, 993, 994, 994, 995, 995, 996, 997, 997, 998, 998, 999, 999, 1000, 1000, 1001, 1001, 1002, 1002, 1003, 1003, 1004, 1004, 1005, 1005, 1006, 1006, 1007, 1007, 1008, 1008, 1009, 1009, 1010, 1010, 1011, 1011, 1012, 1012, 1013, 1013, 1014, 1014, 1015, 1015, 1016, 1016, 1017, 1017, 1018, 1018, 1019, 1019, 1020, 1020, 1021, 1021, 1022, 1022, 1023, 1023, 1024, 1024, 1025, 1025, 1026, 1026, 1027, 1027, 1028, 1028, 1029, 1029, 1030, 1030, 1031, 1031, 1032, 1032, 1033, 1033, 1034, 1034, 1035, 1035, 1036, 1036, 1037, 1037, 1038, 1038, 1039, 1039, 1040, 1040, 1041, 1041, 1042, 1042, 1043, 1043, 1044, 1044, 1045, 1045, 1046, 1046, 1047, 1047, 1048, 1048, 1049, 1049, 1050, 1050, 1051, 1051, 1052, 1052, 1053, 1053, 1054, 1054, 1055, 1055, 1056, 1056, 1057, 1057, 1058, 1058, 1059, 1059, 1060, 1060, 1061, 1061, 1062, 1062, 1063, 1063, 1064, 1064, 1065, 1065, 1066, 1066, 1067, 1067, 1068, 1068, 1069, 1069, 1070, 1070, 1071, 1071, 1072, 1072, 1073, 1073, 1074, 1074, 1075, 1075, 1076, 1076, 1077, 1077, 1078, 1078, 1079, 1079, 1080, 1080, 1081, 1081, 1082, 1082, 1083, 1083, 1084, 1084, 1085, 1085, 1086, 1086, 1087, 1087, 1088, 1088, 1089, 1089, 1090, 1090, 1091, 1091, 1092, 1092, 1093

239

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

243

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

<sup>5</sup>  =  **Timbre**  = 70

253

Fl. G key depressed  
pp mp pp mp pp

Ob. pp mp pp mp pp mp pp

B♭ Cl. [o] - [i] 12 ord.  
st. mute "p" "mf" "p"

Hn. pp harmon mute w/ stem  
ord. + p ppp

T. Tbn. ppp p ppp mp pp

Perc. mp pp rub silicone mallet Crystal bowl 2 (lower) ppp

Vln. I bow wood "mf" "p" "mf" "p"

Vln. II "p" "mf" "p" "mf" "p" "mf"

Vla. "p" < "mf" "p" "mf" "p" "mf"

Vc. "p" "mf" "p" "mf" "p" "mf"

D.B. sounding pitch pp mp pp mp pp "mf"





**274** = 84

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

**278** *rall al*

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Sing

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

= 56

281

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Perc.

Crot.

Vln. I

Vln. II

Vla.

Vc.

D.B.

i.v. singing bowls

ord.

bow wood

grind

284

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Sing

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

ord.

as soft as possible  
bisbigliando, LH 4th finger

st. mute

ord.

bow wood

grind

ppp

bow wood

bow wood

grind bridge, under strings

288

Fl.

Ob.

B♭ Cl.

Hn.

T. Tbn.

Perc.

Vln. I

Vln. II

Vla.

Vc.

D.B.

motor on, Vibr. slow

*pp* — *p*

*pp* — *mp* — *pp*      *pp* — *mp* — *pp*      *pp* — *mp* — *pp*

*pp* — *mp* — *pp*      *pp* — *mp* — *pp*      *pp* — *mp* — *pp*

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

*pp* — *mp* — *pp*      *pp* — *mp* — *pp*      *pp* — *mp* — *pp*

*pp* — *mp* — *pp*

Paris, 13th February, 2022