

dayton hare

how to

be both

*for prepared piano four  
hands and live electronics*



# Instrumentation

prepared piano with two players  
live electronics

## Piano Preparations

Mute these strings with a large amount of blu tack in various places to create a dull percussive sound.

Mute each of these strings with blu tack near the pins. The tone color of the note should change but still have a very clear pitch.

Mute with just a tiny bit of blu tack near the bridge.

Mute with one long strip of blu tack near the pins.

Mute with blu tack near the bridge to create a dull, pitchless percussive sound

Detune these notes by placing a tiny ball of blu tack between the two highest strings of each note somewhere in the middle of the string. The effect is of a note out of tune with itself.

**15ma**

**8ba - J**

Label these notes with small stickers bearing the note name on the dampers of each note to facilitate with finding strings for harmonics and e-bows.

Tie a strand of yarn just behind the halfway point of these strings to facilitate locating the octave harmonic.

Do likewise with these strings to facilitate locating the 3rd partial harmonic.

**Materials Required**

- blu tack
- yarn/string
- aluminum foil
- tiny stickers
- two e-bows

## Program Note

When I moved to Paris last fall, one of the first things I noticed was the noise. I've never lived in a city of its scale or size before, and I was shocked at the way the city seems to hum and buzz at an elevated volume. At the same time, scattered pockets of calm and quiet could be found throughout the city in the form of parks and other natural areas, a legacy of Paris's emphasis on bringing the natural world into the urban landscape and of its recent efforts to combat climate change.

how to be both is a reflection on the interrelationship between these two very different sonic worlds living side by side and permeating one another. Throughout, it makes use of field recordings I've taken around Paris with a microphone this year, and reflects on how one can't cleanly separate the two types of sounds into distinct categories, urban and natural. I hope that this piece may contribute in a small way to the discussion of how we should approach our built environments as we look for solutions to climate change, and a demonstration of how to be both a modern city and a space for the living Earth.

My thanks to my fellow artist-in-residence E i M O for her collaboration on the creation of this piece. Her in situ companion painting can be viewed around the concert hall and in the gallery above.

## Performance Notes

**E-Bow Use:** to use the e-bows, first turn them on, then place them on the designated note's strings near the mid point. It take a few seconds for the resonance to become audible.

**Harmonics:** sounding pitches are marked with a circle above the notehead, the partial is indicated with text, and a diamond notehead shows the struck key. Use yarn/string to mark inside the piano where each harmonic node is found. For best results, touch lightly at the indicated node, strike the key and immediately stop touching the string.

**Live Electronics:** this piece uses field recordings taken around the city of Paris. For performance, keymap a MIDI keyboard to each of them using Ableton, and connect the keyboard to a stereo sound system in the hall. Ideally speakers should be positioned facing the audience on either side of the piano. The piece is written in such a way that the samples can be triggered by the pianists, but you could also opt for a standalone electronics performer.

**X Noteheads:** notes whose pitch is obscured by blu tack are written using rhythmic x noteheads.

**Atemporality:** the first section of the piece is written without specific rhythms. Timing should roughly correspond to the horizontal spacing of notes on the staff.

**Non-dyadic meters:** This piece occassionally uses non-dyadic meters with the denominator of 6, such as 2/6 or 5/6. This indicates a division of the whole note into six parts, i.e. into the equivalent of six quarter-note triplets in 4/4, with the meter being made up of 2 or 5 of these quarter-note triplets respectively. Incomplete triplet rhythms are indicated with open brackets.

**Extender Lines:** field recording and e-bow durations are indicated with extender lines rather than traditional rythmic notation.

## World Premiere

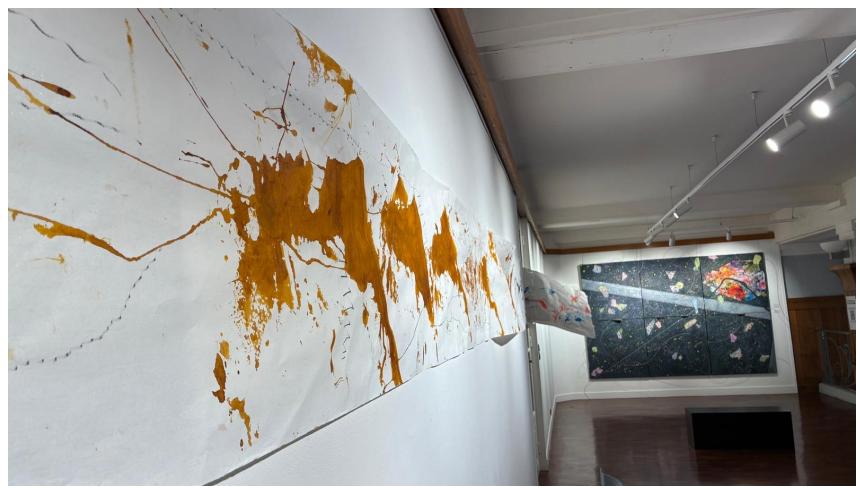
27 June 2025

Grand Salon of the Fondation des États-Unis  
Paris

## Companion Artwork

*how to be both* was written in collaboration with the painter E i M O. Our process involved joint sound walks through the city of Paris, during which I would take field recordings of the environment using a microphone and E i M O would take photographs to use as references when she painted later. We then had several sessions during which I improvised at a prepared piano and played back the field recordings to generate material for the piece while E i M O painted in response to what she heard. These live painting were used as part of an art installation in the concert hall at the premiere.

E i M O also created a large-scale painting based on the finished piece, which was exhibited in the gallery space attached to the concert hall at the premiere. Reference photographs of this painting and installation are included below.





*composed in fulfillment of the project requirements of the  
Fulbright-Harriet Hale Woolley Award in the Arts*

# how to be both

*for Ariela, Gabe, and Virginie*

dayton hare

$\text{d} = 60$  seemingly out of time, floating

[rain & thunder] ~30"

Live Electronics

Player 1

Player 2

Elec.

P. 1

P. 2

7

14 A

l.v. sempre

l.v. sempre

$\text{R}\ddot{\text{o}}$  →

$n \swarrow p$

21

Elec.

P. 1

P. 2

give e-bow to player 2

*n--p*

*n--p*

*n--p*

*n--p*

28

**B**

Elec.

P. 1

P. 2

harmonics  
third partial, l.v. sempre

*p*

*n--p*

*n--p*

*n--p*

34

Elec.

P. 1

P. 2

*n--p*

*n--p*

*n--p*

40

C

Elec.

P. 1

P. 2

46

Elec.

P. 1

P. 2

52

Elec.

P. 1

P. 2

58

Elec.

P. 1

P. 2

*n—p*

*n—p*

*n—p*

**D** bells for mass

64

Elec.

*p*

*n*

ord. at keyboard

P. 1

*pp*

*mp*

*n—p*

*n—p*

*n—p*

69

Elec.

P. 1

*f*

*3*

*n—p*

*n—p*

*n—p*

74

Elec.

P. 1

P. 2

79

Elec.

P. 1

P. 2

84

Elec.

P. 1

P. 2

Detailed description: The musical score is divided into three systems. System 1 (measures 74-78) starts with the electric instrument holding a note. Player 1 has a line with grace notes and dynamic markings like  $\text{n} \swarrow \text{p}$ . Player 2 also has a line with similar markings. System 2 (measures 79-83) continues with more complex patterns for all three parts, including slurs and grace notes. System 3 (measures 84-88) concludes with sustained notes and grace notes, with dynamic markings such as  $\text{n} \swarrow \text{p}$  appearing again.

how to be both

90

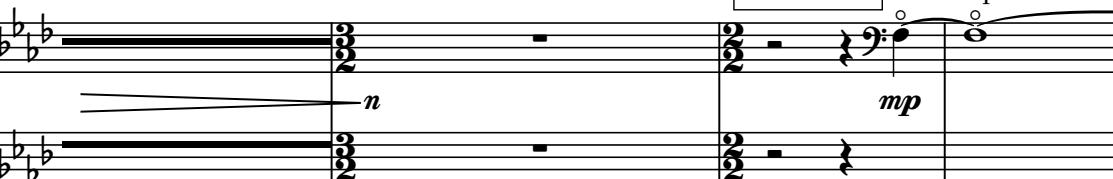
**E** distant pealing

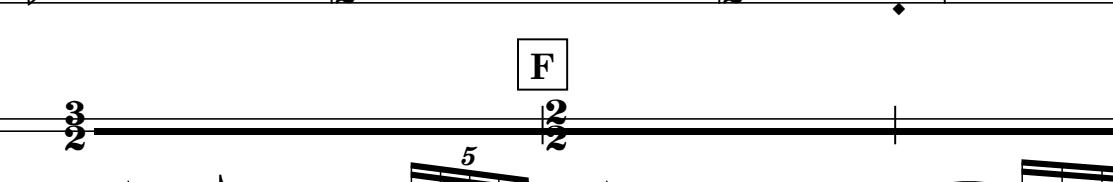
Elec. 

P. 1 

P. 2 

94

Elec. 

P. 1 

P. 2 

98

**F**

Elec. 

P. 1 

P. 2 

ord. at keyboard

101

Elec.

P. 1

P. 2

harmonics

ord. at keyboard

104

Elec.

P. 1

P. 2

G

harmonics

15ma

108

Elec.

P. 1

P. 2

H car horns

112

Elec.

(15)

P. 1

P. 2

116

Elec.

(15)

P. 1

P. 2

120

(15) I

P. 1

P. 2

124 (15)

P. 1 (8)

P. 2

127 (15)

P. 1 (8.)

P. 2

130 (15)

P. 1 (8.)

P. 2

J

133 (15) P. 1 8va - P. 2 3 3 3 3

136 (15) P. 1 (8) P. 2 3 5 3 3

139 (15) P. 1 (8) P. 2 3 3 3 3

(15)

143 **K**

P. 1

P. 2

(15)

146

P. 1

P. 2

**L**

149

P. 1

*p sub.*

P. 2

*p sub.*

how to be both

153

**M**  $\text{d} = 90$  bikes

Elec.

P. 1

P. 2

157

**Elec.**

**P. 1**

**P. 2**

160

**N**

**Elec.**

**P. 1**

**P. 2**

163

Elec.

(15)

P. 1

P. 2

166 (8)

Elec.

(15)

P. 1

P. 2

(8)

169

O

Elec.

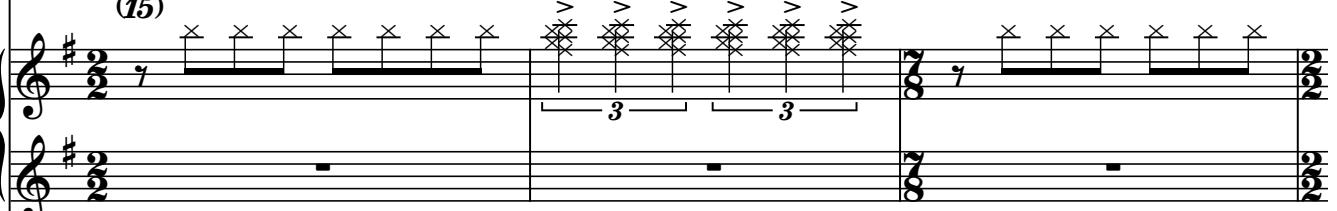
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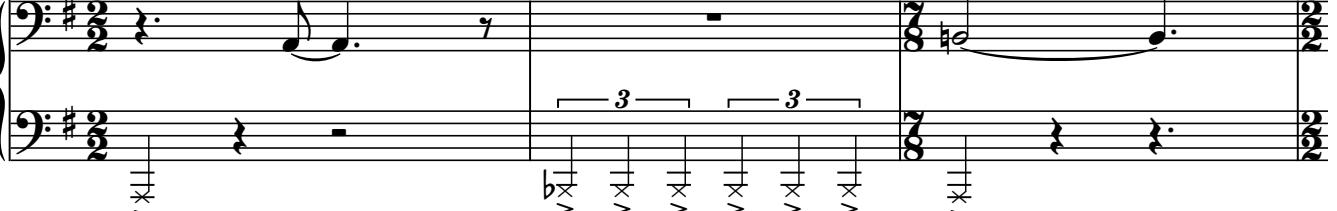
P. 1

P. 2

173

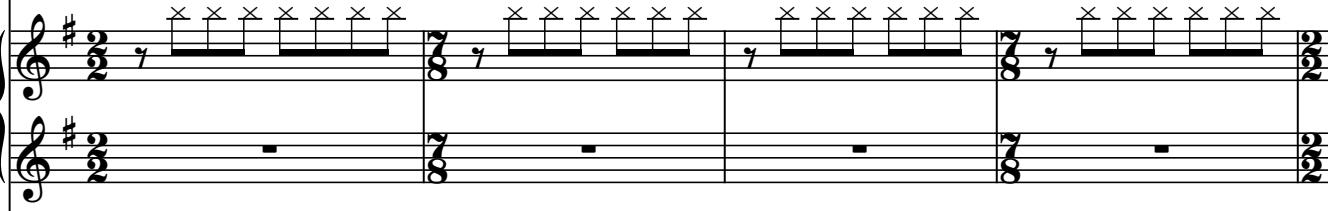
Elec. 

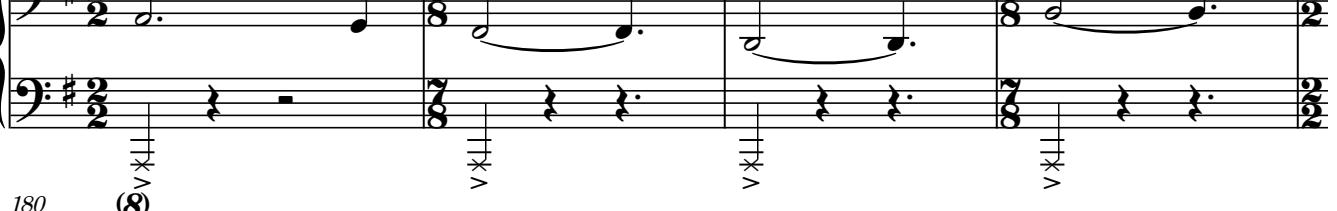
P. 1 

P. 2 

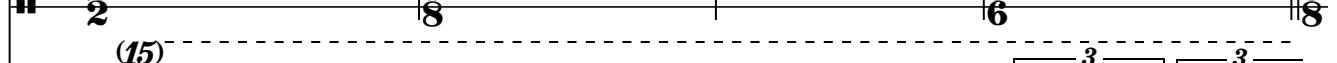
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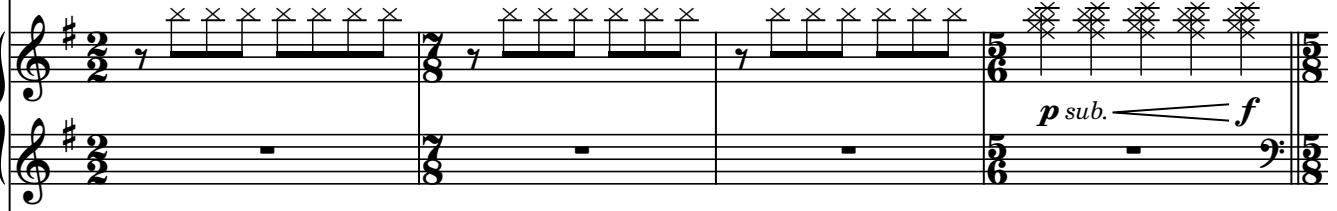
Elec. 

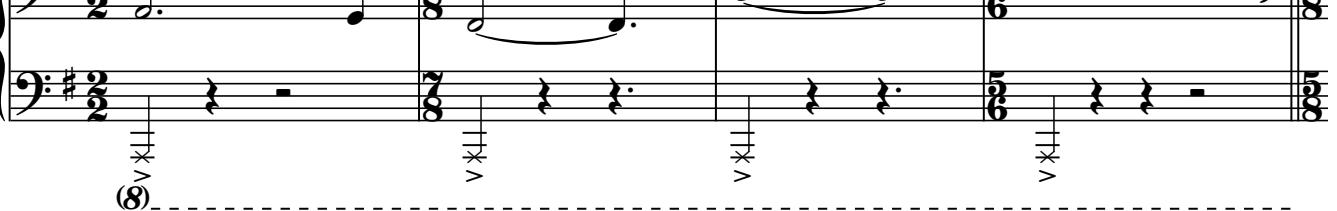
(15) 

P. 1 

180 

Elec. 

(15) 

P. 1 

**P**

184 screeching train

Elec.

188

Elec.

P. 1

P. 2

192 **Q**

Elec.

P. 1

P. 2

196

Elec.

P. 1

P. 2

200

(8)

Elec.

P. 1

P. 2

204

(8)

Elec.

P. 1

P. 2

(8)

208

Elec.

P. 1

P. 2

212

Elec.

P. 1

P. 2

216 

**R** **bikes**

220

Elec. | 5 2 5 7 8

P. 1 |  $\begin{array}{c} \text{G} \\ \text{F} \end{array}$  |  $\begin{array}{c} \text{E} \\ \text{D} \end{array}$  |  $\begin{array}{c} \text{C} \\ \text{B} \end{array}$  |  $\begin{array}{c} \text{A} \\ \text{G} \end{array}$  |  $\begin{array}{c} \text{F} \\ \text{E} \end{array}$  |  $\begin{array}{c} \text{D} \\ \text{C} \end{array}$  |  $\begin{array}{c} \text{B} \\ \text{A} \end{array}$  |  $\begin{array}{c} \text{G} \\ \text{F} \end{array}$  |  $\begin{array}{c} \text{E} \\ \text{D} \end{array}$  |  $\begin{array}{c} \text{C} \\ \text{B} \end{array}$  |  $\begin{array}{c} \text{A} \\ \text{G} \end{array}$  |  $\begin{array}{c} \text{F} \\ \text{E} \end{array}$  |  $\begin{array}{c} \text{D} \\ \text{C} \end{array}$  |  $\begin{array}{c} \text{B} \\ \text{A} \end{array}$  |  $\begin{array}{c} \text{G} \\ \text{F} \end{array}$  |  $\begin{array}{c} \text{E} \\ \text{D} \end{math>$

P. 2 |  $\begin{array}{c} \text{G} \\ \text{F} \end{array}$  |  $\begin{array}{c} \text{E} \\ \text{D} \end{array}$  |  $\begin{array}{c} \text{C} \\ \text{B} \end{array}$  |  $\begin{array}{c} \text{A} \\ \text{G} \end{array}$  |  $\begin{array}{c} \text{F} \\ \text{E} \end{array}$  |  $\begin{array}{c} \text{D} \\ \text{C} \end{array}$  |  $\begin{array}{c} \text{B} \\ \text{A} \end{array}$  |  $\begin{array}{c} \text{G} \\ \text{F} \end{math>$

225 [S] | 7 2 7 2

Elec. | 15<sup>ma</sup> -

P. 1 |  $\begin{array}{c} \text{G} \\ \text{F} \end{array}$  |  $\begin{array}{c} \text{E} \\ \text{D} \end{array}$  |  $\begin{array}{c} \text{C} \\ \text{B} \end{array}$  |  $\begin{array}{c} \text{A} \\ \text{G} \end{array}$  |  $\begin{array}{c} \text{F} \\ \text{E} \end{array}$  |  $\begin{array}{c} \text{D} \\ \text{C} \end{array}$  |  $\begin{array}{c} \text{B} \\ \text{A} \end{array}$  |  $\begin{array}{c} \text{G} \\ \text{F} \end{math>$

P. 2 |  $\begin{array}{c} \text{G} \\ \text{F} \end{array}$  |  $\begin{array}{c} \text{E} \\ \text{D} \end{array}$  |  $\begin{array}{c} \text{C} \\ \text{B} \end{math>$

228 (8) | 2 7 2 7 2

Elec. | 2 7 2 7 8

P. 1 | (15)  $\begin{array}{c} \text{G} \\ \text{F} \end{array}$  |  $\begin{array}{c} \text{E} \\ \text{D} \end{array}$  |  $\begin{array}{c} \text{C} \\ \text{B} \end{math>$

P. 2 |  $\begin{array}{c} \text{G} \\ \text{F} \end{array}$  |  $\begin{array}{c} \text{E} \\ \text{D} \end{math>$

(8) | 2 7 2 7 8

231

T

Elec.

(15)

P. 1

P. 2

234 (8)

Elec.

(15)

P. 1

P. 2

237 (8)

Elec.

(15)

P. 1

P. 2

## how to be both

259

W

Elec.

P. 1

P. 2

263

Elec.

P. 1

P. 2

266

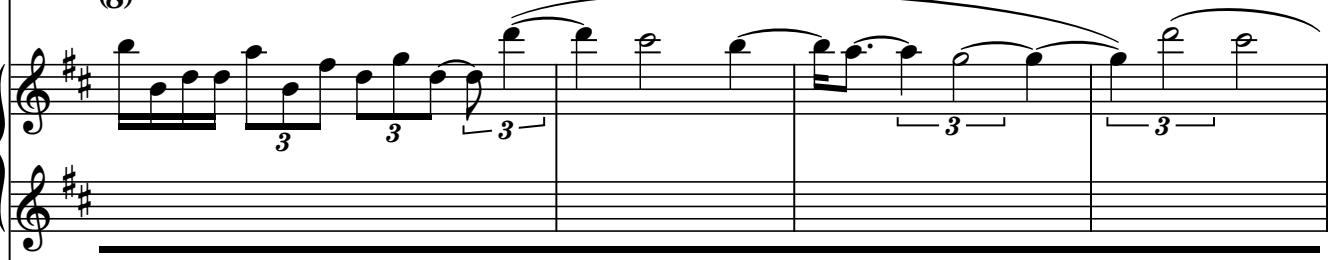
Elec.

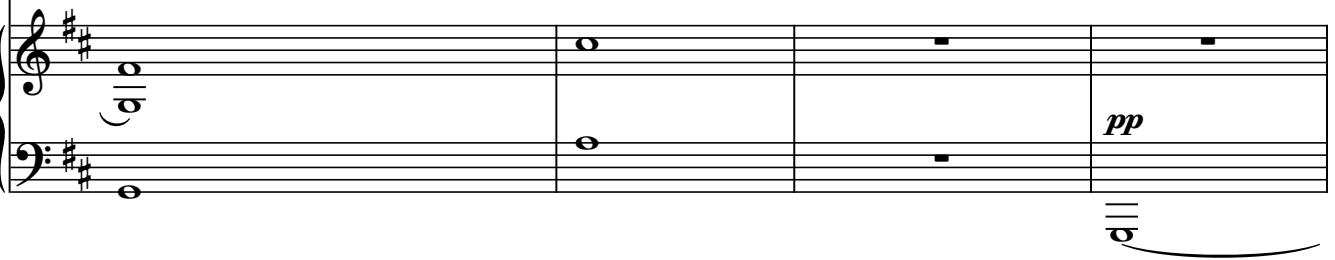
P. 1

P. 2

269 **ritardando.....**

Elec. 

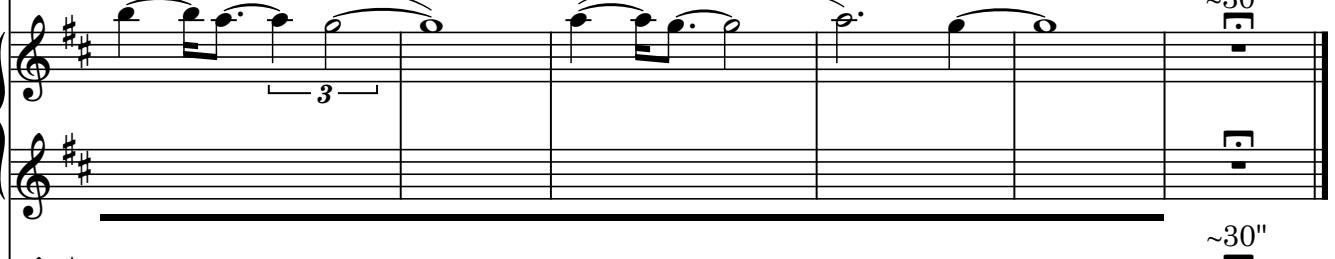
(8) P. 1 

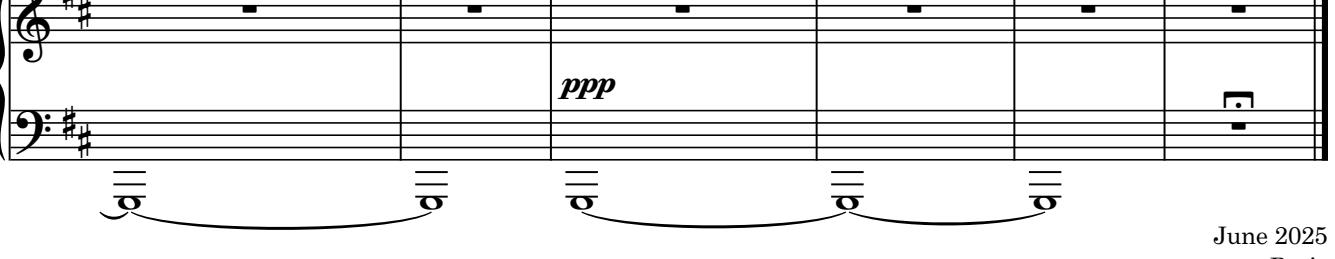
P. 2 

**pp**

273 

Elec. 

(8) P. 1 

P. 2 

**ppp**

**n**

**~30"**

**~30"**

June 2025  
Paris