

Paul McGuire

# TAMPERED

(2014)



# PERFORMANCE NOTES

## Instrumentation

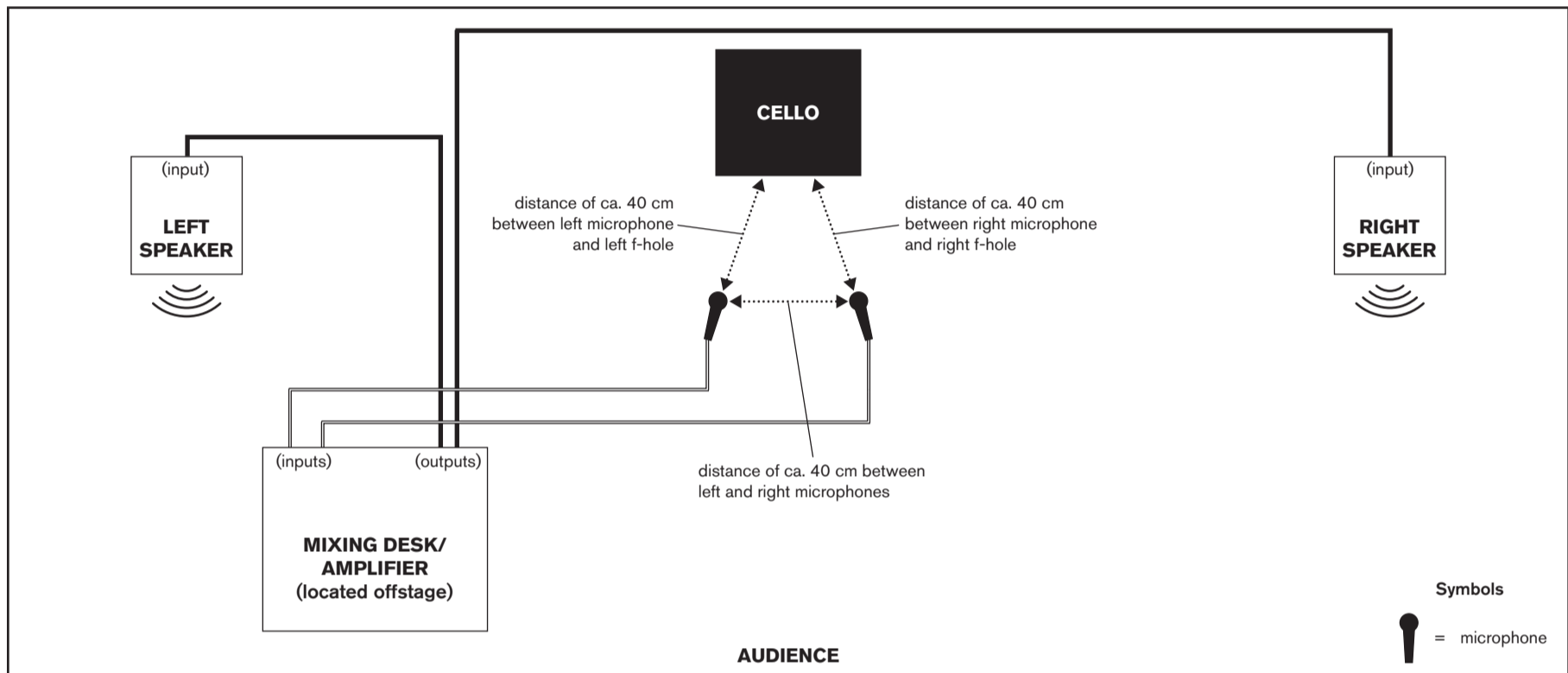
Solo Cello

Duration: ca. 14 minutes

A stopwatch should not be used. All timings are approximate (see General Notation for more details).

The cello should be amplified in stereo in order to project the microdetails of the various sounds. It is preferable that the instrument be close miked with a pair of condenser microphones. Each microphone should be aimed at one of the cello's f-holes, and placed at a distance of ca. 40 cm from one another and ca. 40 cm from the instrument itself. No contact microphones or pickups should be used. The overall signal should output to a pair of large loudspeakers, located either side of the performer.

## Stage Setup



## Cello Setup

Ideally, the cello should have a metal tailpiece in order to produce the optimum sound at rehearsal mark **J**, and a French-style bridge (which has a slightly different shape to its Belgian counterpart) in order to produce a whistling sonority at rehearsal mark **E**. The face of the bridge should also be rosined to increase the presence of said whistling. As good tone, in the traditional sense, is not necessarily a primary concern in this composition, a 4/4 student instrument may be used. Furthermore, the cheaper body and harder finish of a student instrument are likely more resilient than those of an expensive cello, and therefore less likely to suffer any superficial damage from repeated recitals of the passages at rehearsal marks **A** and **L**.

*Scordatura*: The tuning of String IV depends on the pitch produced at rehearsal mark **J**. This score has been written from the perspective that string IV has been tuned down from C1 → B0, as this is what is required in order to match the dominant higher pitch of the multiphonic at rehearsal mark **I** with the pitch produced by bowing the lower part of the tailpiece at rehearsal mark **J**, on the particular cello this piece was originally written for. If the dominant pitch of the written multiphonic doesn't match the pitch of the performer's tailpiece like so, the performer should choose a different harmonic node for the multiphonic or re-tune string IV of their instrument until they do match, even if this requires tuning the string to a microtonal pitch.

The performer is required to have two different bows to use on the instrument. Bow 1 should be loosened to the point where its hair hangs with significantly less tension than normal, while Bow 2 should be set to the standard tension. Ideally, the stick of Bow 1 should be in the shape of an octagonal prism (sometimes referred to as an "octagonal stick") rather than a cylinder (a "round stick"), in order to produce the loudest possible sound when the angle of Bow 1 is twisted against a surface of the cello (e.g. at rehearsal mark **M**). In addition, the wire wrapping of Bow 1 should have a thick gauge if possible, as it creates a louder sound when scraped (e.g. at rehearsal mark **N**) than standard, thin gauge wire wrapping.

## General Notation

Rhythmically, this piece is non-metrical. In other words there is no discernible pulse. For this reason, traditional bars and beats have not been notated. Instead, musical cells have been plotted on a horizontal timeline. These cells indicate when the performer should be playing, and the blank spaces in between represent silence. The timeline is divided into various sized segments that are measured in seconds, and the length of each segment is indicated above the system. These segments are used in order to clearly align certain entries, exits and actions, and to make the pacing easier to interpret. The timeline is only an approximate guide. The performer should not follow a stopwatch, but instead should use their intuition to dictate the length of each phrase. As the cello is used in unconventional ways here, traditional staves have been eschewed, for the most part, in favour of a series of graph and symbol based staves that represent the various shifting parameters of each passage.

The text in italics written above some of the passages briefly summarises how the corresponding passage should sound.

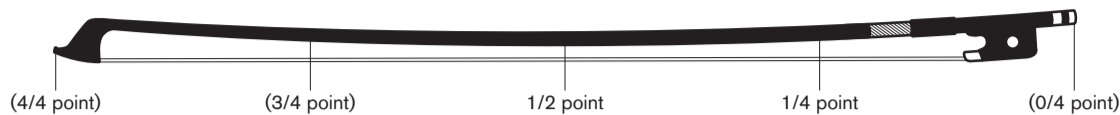
Many musical phrases in this score are contained in boxes. Each is a 10 second example of how the beginning of a passage could be performed. The performer should not try to replicate each boxed phrase precisely (as there is simply too much notational detail to do so), but instead try to approximate its textural density using all of the notated actions, though not necessarily in the written order, and continue in that manner for the remainder of the passage. The dynamic written below each box applies to all of the staves contained within the box, aside from those staves which have *n/a* written beneath them. Here, a dynamic does not apply because, in such a case, the particular parameter (an angle or a position) remains static and helps shape the overall sound rather than generating a sound on its own.

Non-boxed phrases should be performed as written.

## PERFORMANCE NOTES (CONTINUED)

### Points of Bow 1

The 1/2 point and 1/4 point of Bow 1 are referred to a number of times in the score. See the illustration below which shows the location of these points.



### Hands

**R.H.** Perform the specific gesture(s) using one's right hand.

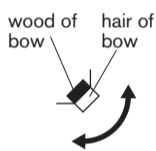
**L.H.** Perform the specific gesture(s) using one's left hand.

**B.H.** Perform the specific gesture(s) using both hands.

### Clefs (in order of appearance)



Tremolo/rattle clef. A / symbol on the corresponding stave depicts when one should perform a tremolo. A • symbol depicts when one should quickly and chaotically rattle the wood of the Bow 1 against a specific part of the cello. Note that in both cases, the amount of symbols does not equal the number of movements in a gesture, but rather the length of time that gesture should be performed for, whereby a single symbol means one should perform the gesture for a very brief amount of time and then stop.



Bow angle clef. A dashed horizontal line on the corresponding stave depicts the angle of the bow in relation to the surface it is touching (in this case the corner of the bridge face/belly of the cello). A solid curved line depicts the angle, as well as when and at what rate one should twist the angle of the bow in order to make a percussive crackling sound.



Adapted tablature clef. The lines of the corresponding stave signify the individual strings of the instrument, where the top line is string I. The symbols on this stave depict what type of actions (see Symbols), as well as when these actions should occur on the given string(s).



Arpeggio tablature clef. A dashed horizontal line on the corresponding stave depicts what string(s) one should focus on. A solid curved line depicts when, at what rate and over what string(s) one should arpeggio the bow.



Action on belly clef. The symbols on the corresponding stave depict what type of actions, as well as when these actions should be performed on the belly of the cello. One should carry out these actions at a regularly varying position on a ca. 25 cm<sup>2</sup> area around the f-hole on one's right side. For added colour, one should allow one's fingernails to tap and scrape against the edges of the f-hole now and again.



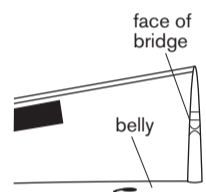
Bow tip of Bow 1 clef. A solid horizontal line on the corresponding stave depicts when and for how long one should bow the almost perpendicular wooden tip of Bow 1 with Bow 2.



Scrape through bow hair clef. A dashed horizontal line on the corresponding stave depicts the position of one's thumb in the hair of the bow (ca. 2 cm up from the frog, on the non-rosin side of the hair). A solid curved line depicts the position, direction and rate at which one should firmly scrape through the hair with the nail and tip of one's thumb.



Arpeggio on belly clef. A solid curved line on the corresponding stave depicts when and at what rate one should arpeggio the bow on the curved belly of the cello.



Position on face of bridge clef. A dashed horizontal line on the corresponding stave depicts the position of the bow on the face of the bridge. A solid horizontal line indicates the position at which the face of the bridge should be bowed. A solid curved line depicts the position of the bow, as well as when and at what rate one should drag it along the face of the bridge. For other symbols used on this stave, see Symbols.



Vertical tremolo/hair side battuto clef. A / symbol on the corresponding stave depicts when one should perform a vertical tremolo, where the hair side of the bow is dragged over and back as quickly as possible along a ca. 2cm the length of the given string(s). Note that the amount of / symbols does not equal the number of movements in a vertical tremolo, but rather the length of time that gesture should be performed for, whereby a single symbol means one should perform the gesture for a very brief amount of time and then stop. A ○ symbol depicts when one should battuto the hair-side of the bow against the given string(s). In this case, the amount of ○ symbols equals the number of times one should perform a hair-side battuto. Note that the vertical tremolo clef also appears as a stand-alone clef at rehearsal mark **B**, where a vertical tremolo gesture is required, but a hair-side battuto is not.



Action on face of bridge clef. The symbols on the corresponding stave depict what type of actions, as well as when one should perform these actions on the face of the bridge. For added colour, one should allow one's fingernails to tap and scrape against the edges of the gaps on the bridge face now and again.




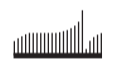

Position on tailpiece clef. A solid horizontal line on the corresponding stave depicts the part of the tailpiece one should bow. For other symbols used on this stave, see Symbols.



Scrape wrapping clef. A dashed horizontal line on the corresponding stave depicts the position of one's thumbnail on the metal wrapping of the bow. A solid curved line depicts the position, direction and rate at which one should firmly scrape the metal wrapping with one's thumbnail.

## PERFORMANCE NOTES (CONTINUED)

### Symbols (those not explained under Clefs, in order of appearance)

<p>Mod. between <i>f</i> and <i>fff</i></p>	<p>Modulate between <i>f</i> and <i>fff</i> at one's discretion.</p>	<p>▼</p>	<p>Pluck the given string with one's fingernail.</p>
<p>▲</p>	<p>Flick the given string with one's fingernail.</p>	<p>▽</p>	<p>Pluck the given string with one's fingertip.</p>
<p>△</p>	<p>Flick the given string with one's fingertip.</p>	<p><i>n/a</i></p>	<p>Dynamic not applicable. Here, the particular parameter this refers to (an angle or a position) remains static and helps shape the overall sound rather than generating a sound on its own.</p>
<p>Continue <i>ad libitum.</i></p> <hr style="border: 1px solid black; width: 100%;"/>	<p>Continue the passage <i>ad libitum</i> until the end of the solid horizontal line.</p>	<p>△</p>	<p>The highest possible pitch on the given string (one's finger should be placed ca. 1 cm in front of bridge).</p>
<p>■</p>	<p>Tap the given surface with one's fingernail.</p>	<p>▣</p>	<p>Tap the given surface with one's fingernail and scrape inwards.</p>
<p>▣</p>	<p>Tap the given surface with one's fingernail and scrape outwards</p>	<p>□</p>	<p>Tap the given surface with one's fingertip.</p>
<p>▣</p>	<p>Tap the given surface with one's fingertip and scrape inwards.</p>	<p>▣</p>	<p>Tap the given surface with one's fingertip and scrape outwards.</p>
<p>Continue <i>ad libitum.</i></p> <hr style="border: 1px solid black; width: 100%;"/>	<p>Continue the passage <i>ad libitum</i> on to the next system.</p>	<p>↶</p>	<p>Downbow for less than a second before quickly resuming an upbow.</p>
	<p>Bowed behind the node multiphonic. While touching the string (the pitch of which is represented by the lower solid note head) at the given harmonic node (the diamond note head) with a finger of one's left hand, bow ca. 1–2 cm behind this node with a slow bowing speed and firm pressure (though not quite firm enough to generate a scratch tone) to produce a multiphonic. The dominant, higher pitch of this multiphonic is represented by the smaller solid note head in parentheses.</p>		<p>Presence of pitch among the noise. The solid, thick horizontal line on the bottom represents where or on what string one should bow with Bow 1. The vertical lines above it represent the dynamic envelope of the pitch (or dominant pitch) in relation to the noise of the texture (or overall multiphonic), whereby the longer the vertical line, the more present this pitch is. The presence is altered, for the most part, by modulating the bowing pressure. Aside from controlling the pitch:noise ratio of the texture, this also affects the dynamic to a certain extent. The bowing speed, on the other hand, affects the overall dynamic of the texture in a less biased way.</p>
<p>V/↶</p>	<p>Bow. Alternate between upbowing and downbowing at one's discretion.</p>		<p>Bow slippage boundary. The solid, thick horizontal line in the middle represents where on the bridge face one should aim to bow with Bow 1. However, because the tip of Bow 1 is simultaneously being firmly bowed with Bow 2, it is difficult to hold this position precisely and natural perpendicular slippage of the Bow 1 will likely occur. This slippage and its resulting complex scratching noise should be embraced. The dotted horizontal lines represent the boundary within which one should allow this to happen.</p>



# TAMPERED

Paul McGuire

*Scordatura*: String IV, depending on the pitch produced at rehearsal mark **A**. This score has been written from the perspective that string IV has been tuned down from C1 → B0, as this is what was required on the cello the piece was originally written for. See Cello Setup for more details.

**A**

TIME 10" 35"

R.H. Mute strings with chin (and thumb of L.H.).  
Bow 1 (loosened tension): Grip by wood at 1/4 point.  
Lean firmly (so that the wood of the bow presses against the back of the hair).

Continue *ad libitum*. Maintain a relatively consistent textural density.

1/2 point of Bow 1 (in contact with instrument).  
corner of bridge face/belly of cello

*n/a*

Mod. between *f* and *fff*

L.H. Busy, uneven and violent scurrying.  
Fingers only (no thumb).  
Sul ponticello/normale (range of fingers).  
Mute strings I-IV with thumb (and chin).

Continue *ad libitum*. Maintain a relatively consistent textural density.

Mod. between *f* and *fff*



9" 9"

R.H. Silently hold position. Silently move Bow 1 in front of the strings (standard bowing position).

L.H. Mute strings I-IV with hand.



**B**

10" 15" 9"

R.H. Bow 1: Grip by wood at 1/4 point.  
Lean firmly (as before).  
On the bridge.

Continue *ad libitum*. Maintain a relatively consistent textural density.

Mod. between *mf* and *ff*

L.H. Mute strings I-IV.

# C

10" 30"

Mute strings I-IV with chin (and thumb of L.H.).  
Bow 1: Grip by wood at 1/4 point.  
Lean firmly.  
On the bridge.

R.H.

Continue *ad libitum*. Maintain a relatively consistent textural density.

Mod. between *f* and *fff*

Busy, uneven and violent scurrying.  
Fingers only.  
Sul ponticello/normale (range of fingers).  
Mute strings I-IV with thumb (and chin).

L.H.

Continue *ad libitum*. Maintain a relatively consistent textural density.

Mod. between *f* and *fff*

# D

30" 14"

Pink noise with an intermittent high register whistle.  
Bow 1: Grip by wood at 1/4 point.  
Lean firmly and bow quite slowly.  
Molto sul ponticello.

B.H.

*n/a*

*f* (overall dynamic)

Silently thread Bow 1 behind the strings and on to the face of the bridge.

\* This high register whistle should match the pitch produced at performance mark **E**, where the face of the bridge is bowed.

# E

40" 14"

A combination of pink noise and subtle crunching sounds, with an intermittent high register whistle.  
Bow 1: Grip by wood at 1/4 point.  
Lean firmly and bow quite slowly.

R.H.

*n/a* *mf*

Silently put down Bow 1.

*mp* *mf*  
(overall dynamic)

L.H.

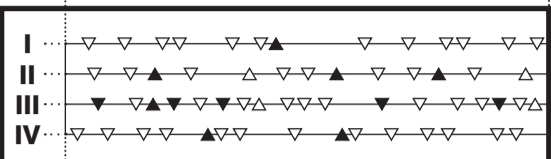
Mute strings I-IV with hand.



# F

10" 20" 7"

R.H. *Busy, uneven and somewhat muted scurrying.*  
Fingers and thumb.  
Sul ponticello/normale (range of fingers).



Continue *ad libitum*. Maintain a relatively consistent textural density.

Mod. between *mp* and *f*

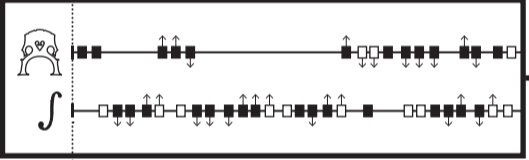
L.H. Mute strings I-IV with hand.



# G

10" 30"

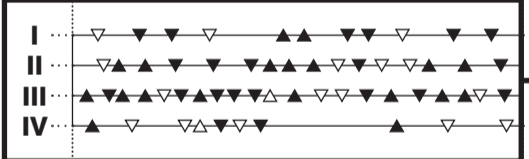
R.H. Mute strings I-IV with chin (and thumb of L.H.).  
*Busy, uneven and colourful scurrying.*  
Fingers and thumb.



Continue *ad libitum*. Maintain a relatively consistent textural density.

Mod. between *f* and *fff*

L.H. *Busy, uneven and violent scurrying.*  
Fingers only.  
Normale/sul tasto (range of fingers).  
Mute strings I-IV with thumb (and chin).




Continue *ad libitum*. Maintain a relatively consistent textural density.

Mod. between *mp* and *f*



# H

10" 20" 18"

R.H.  Continue as before.  
Continue *ad libitum*. Gradually slow down, like an engine, to a halt. The sounds should progressively become more sustained.

Mod. between *mf* and *ff*

Mod. between *pp* and *mp* Silently pick up Bow 1.

L.H. Mute strings I-IV with hand.

**I**

85" 9"

Bow 1: Standard grip.  
Lean quite firmly.  
Mute strings I-III with with unused fingers of L.H..

B.H.

*n/a*

*pp* *mf* *pp*  
(overall dynamic)

\*\* Note that the written bowed behind the node multiphonic has been chosen because the dominant, higher pitch precisely matches the pitch that sounds when the lower portion on the tailpiece of the cello this composition was originally written for is bowed, as in rehearsal mark **J**. If the dominant pitch of the written multiphonic doesn't match the pitch of the performer's tailpiece like so, the performer should choose a different harmonic node or re-tune string IV of their instrument until it does, even if this requires tuning the string to a microtonal pitch.



**J**

75" 18"

With Bow 1: Standard grip.  
Lean quite firmly.

R.H.

*n/a*

*pp* *mf* *pp*  
(overall dynamic)

Silently thread Bow 1 behind the strings and on to the face of the bridge.

L.H. [ Mute strings I-IV with hand. Silently pick up Bow 2.

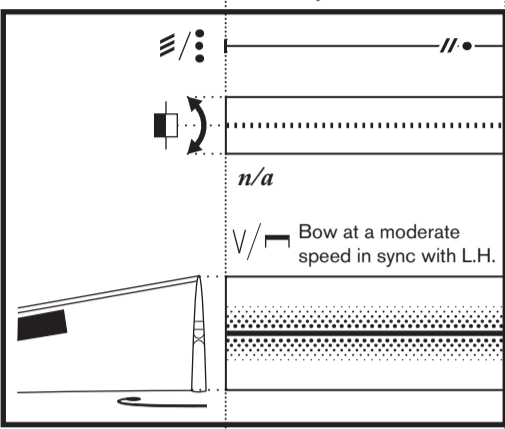
\*\*\* As with the statements at rehearsal marks **D**, **E** and **I**, the vertical lines on this staff represent the dynamic envelope of the pitch in relation to the noise of the texture, as opposed to a modulation of the bowing position.

# K

10" 50"

Mute strings I-IV with chin.  
A combination of pink noise and crunching sounds, with intermittent high register squeaking.  
Bow 1: Standard grip.  
Lean firmly.

R.H.



n/a

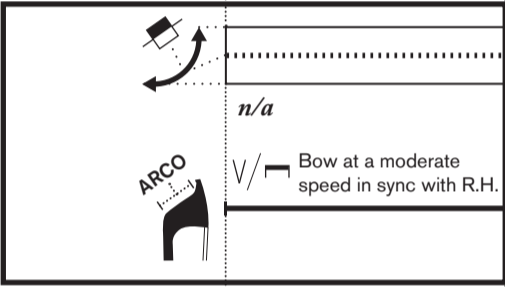
Bow at a moderate speed in sync with L.H.

mp Mod. between mp and ff

Continue ad libitum. Increase the presence of these parameters as the dynamic of R.H. and L.H. increase.

Deep rumbling and rattling.  
Bow 2 (standard tension): Standard grip.  
Lean heavily.

L.H.



n/a

ARCO Bow at a moderate speed in sync with R.H.

pp Mod. between mp and ff

Continue ad libitum. Maintain a consistent textural density.

Release Bow 2 from given position, but continue to hold it.

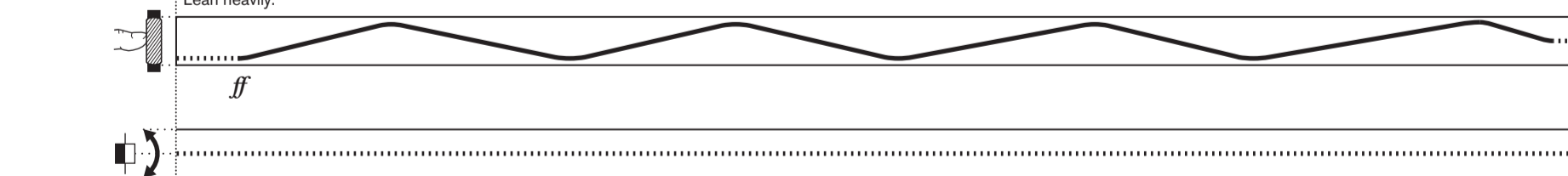


# L

25"

Mute strings I-IV with chin.  
Bow 1: Standard grip.  
Lean heavily.

R.H.

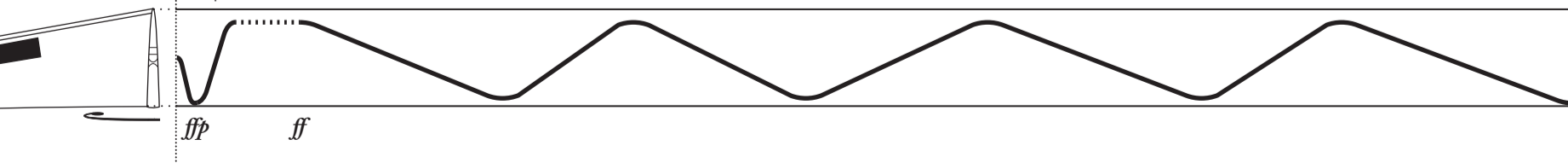


ff

n/a

1/2 point of Bow 1.

L.H.



ffp ff

With Bow 2 in hand, assist the movement of Bow 1 by firmly touching the wooden tip of Bow 1 with one's middle finger.

# M

10"      50"      14"

Mute strings I-IV with chin.  
 With Bow 1: Standard grip.  
 Lean heavily.

R.H.








Continue *ad libitum*. Maintain a relatively consistent textural density.

1/2 point of Bow 1.  
 n/a





*mf*      *ff*      *pp*

L.H.

With Bow 2 in hand, assist the movement of Bow 1 by gently touching the wooden tip of Bow 1 with one's middle finger.

	10"	50"	
	<p>Mute strings I-IV with chin. Bow 1: Standard Grip. Lean firmly.</p>		
R.H.		<p>Increase the amount of wrapping scraping as the dynamic of L.H. increases.</p>	
		<p>Bow 1 should be initially set so that it also touches the purfling of the instrument's waist. Deviate from this only very slightly and sparingly.</p>	
		<p>Continue <i>ad libitum</i>. Maintain a relatively consistent textural density.</p>	
	<i>n/a</i>		
	<p>1/2 point of Bow 1. Allow the wood of Bow 1 to vibrate and rattle against the cello as it is being bowed.</p>		
		<i>n/a</i>	
		<p><i>mf</i> ————— <i>ff</i></p>	
L.H.		<p>Deep rumbling and rattling. Bow 2: Standard grip. Lean heavily.</p>	
		<i>n/a</i>	
		<p>Begin by bowing quite slowly. Increase and decrease the bowing speed along with the increasing and decreasing dynamics.</p>	<p>Continue <i>ad libitum</i>. Maintain a relatively consistent textural density.</p>
	<i>pp</i>		
		<p><i>mf</i> ————— <i>fff</i></p>	



	90"		
R.H.		<p>Continue as before.</p>	
		<p><i>ff</i> ————— <i>mp</i></p>	
L.H.		<p>Continue as before.</p>	
		<p><i>fff</i> ————— <i>pp</i></p>	