

# B | O | R | D | E | R | S

For two guitars tuned in quarter tones and fixed electronics

Matthew Lomax



B|O|R|D|E|R|S was inspired by Alejandro Cartagena's photographic portraits titled:  
'Mother/Daughter at the US/Mexico Border'  
as part of the Taylor Wessing Portrait Prize 2017

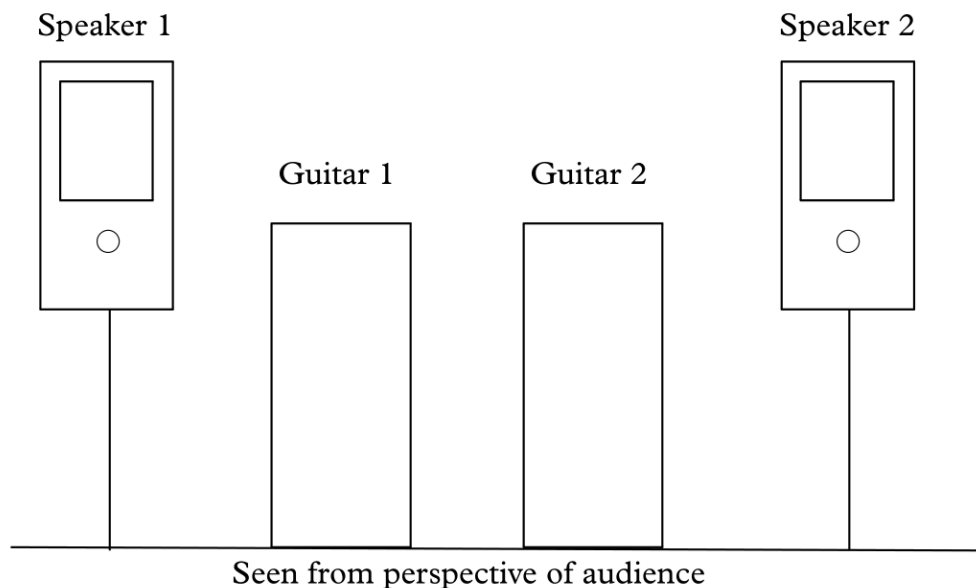
Duration - 3:00"

**Composers Note:**

The most striking element of the photographs are the two silhouetted figures pressing their hands against the fence. The shadows across the mother and daughter mute identifiable characteristics of form and yet draw attention to the light across the hands, stressing the images focus on humanity.

The use of two guitars draws not only cultural links to Mexico, but is predominantly to explore the sound world of hands against metal. The electronics draw from the texture and colours of the fence's rusted appearance by using field recordings of hands interacting with metal and combining them with similar pre-recorded guitar sounds, such as nails scratching against the steel-coiled strings, to blur the distinction between the two sound sources. The piece highlights the theme of separation present in Cartagena's work by exploring the relationship between the live and pre-recorded guitars, sounds so close yet divided.

**Key:**



**Performers Note:**

Guitar 1: Raise the tuning of strings I, II and III by a quarter tone.

Guitar 2: Raise the tuning of strings IV, V and VI by a quarter tone.

The numbering of pre-recorded guitar parts reference the speaker number that they will be heard from.

Performers are advised to play with a timer visible to them so that events in the electronics can be mapped and used as cues.

Numbered events in the score relate to trigger points in the Max patch, it is recommended that performers use a foot pedal.

Harmonics are notated by the position and string, not sounding pitch.



17"

23"

Gtr. 1

pitch bend

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

I 3 II

LH VI

RH

Detailed description: This staff contains the musical notation for the first guitar. It begins with a treble clef and a key signature of one sharp (F#). The music starts at measure 17. A triplet of eighth notes is marked with a bracket and the number '3'. A 'pitch bend' bracket spans the next two measures. The dynamics are marked as *f*, *mf*, *p*, *f*, *p*, *mf*, and *f*. There are fingerings 'I' and 'II' above notes, and a triplet of eighth notes. A left-hand (LH) fingering 'VI' is indicated above a note. The staff ends with a right-hand (RH) strumming pattern marked with 'x' symbols.

Gtr. 2

RH tambour using thumb near bridge

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

I 3

LH VI

RH

Detailed description: This staff contains the musical notation for the second guitar. It begins with a treble clef and a key signature of one sharp (F#). The music starts at measure 17. A 'RH tambour using thumb near bridge' instruction is written above the first measure. The dynamics are marked as *f*, *mf*, *p*, *f*, *p*, *mf*, and *f*. There are fingerings 'I' and '3' above notes, and a triplet of eighth notes. A left-hand (LH) fingering 'VI' is indicated above a note. The staff ends with a right-hand (RH) strumming pattern marked with 'x' symbols.

Elec.

Detailed description: This section shows the electric guitar signal lines. It consists of three horizontal lines. The top line has a thick black bar from measure 17 to 23. The middle line has a thick black bar from measure 23 to the end of the page. The bottom line is empty.

31"

34"

37"

Gtr. 1

*mf* ————— *f* *mp*

Gtr. 2

*mf* ————— *f* *p*

pitch bend

————— *f* ————— *mp* ————— *ff*

muted strings

*ff*

muted strings

*ff*

Pre-recorded  
Gtr. 1

*p* ————— *mf*

*ff*

Pre-recorded  
Gtr. 2

*p* ————— *mf*

*ff*

Elec.

39"

43"

45"

49"

Gtr. 1

sul pont.

*p*

*f*

*p* *f* *p* *f*

VI

IV

VI

Gtr. 2

sul pont.

*p*

*f* *p* *f*

rapid tremolo

I II III

3

V

Pre-recorded  
Gtr. 1

*fp* *fp* *fp*

VI

Pre-recorded  
Gtr. 2

*fp* *fp* *fp* *fp*

VI

Elec.

3

4





1:04" 1:11" 1:13" 1:15"

Gtr. 1

sul tasto molto vib. immediately stop vibrato

*f* *p* *ff*

Gtr. 2

VI RH

*p* *f* *p* *f* *mf* *f* *p* *ff*

RH tapping

use RH to depress strings so that they make contact with the neck at the soundhole until 1:17

LH tambour with palm, use hand to depress strings so that they make contact with the neck at the soundhole until 1:17

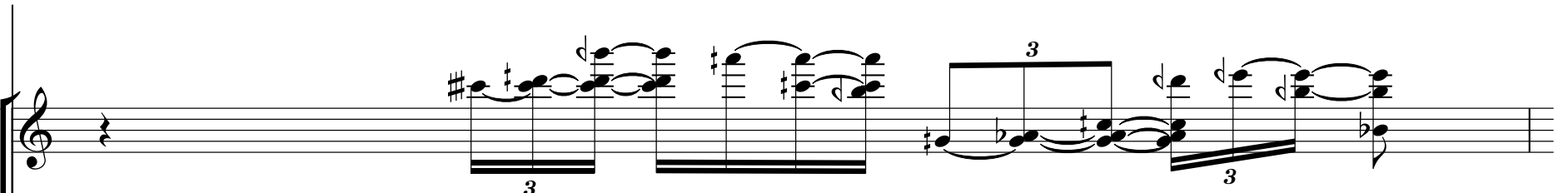


1:17" 1:20"

Elec.

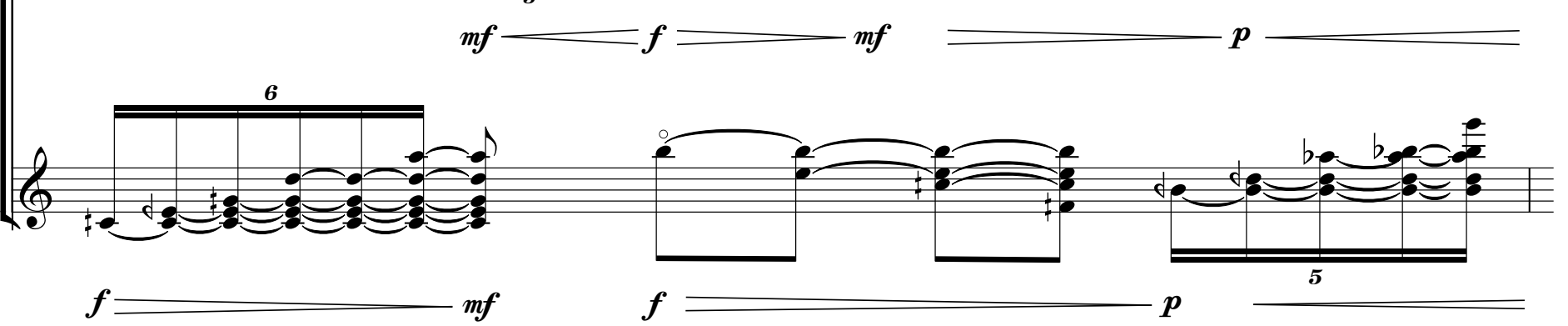
1:25"

Gtr. 1



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

Gtr. 2



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

6

3

3

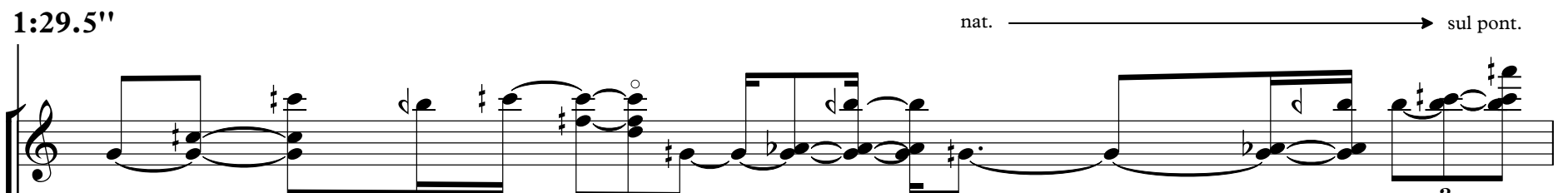
5

Detailed description: This block contains the musical notation for two guitar parts, Gtr. 1 and Gtr. 2, starting at 1:25. Gtr. 1 is in the treble clef and features a melodic line with triplets and slurs. Gtr. 2 is in the treble clef and features a more rhythmic accompaniment with chords and slurs. Dynamic markings include *mf*, *f*, *mf*, and *p*. Fingering numbers 3, 6, and 5 are indicated.



1:29.5"

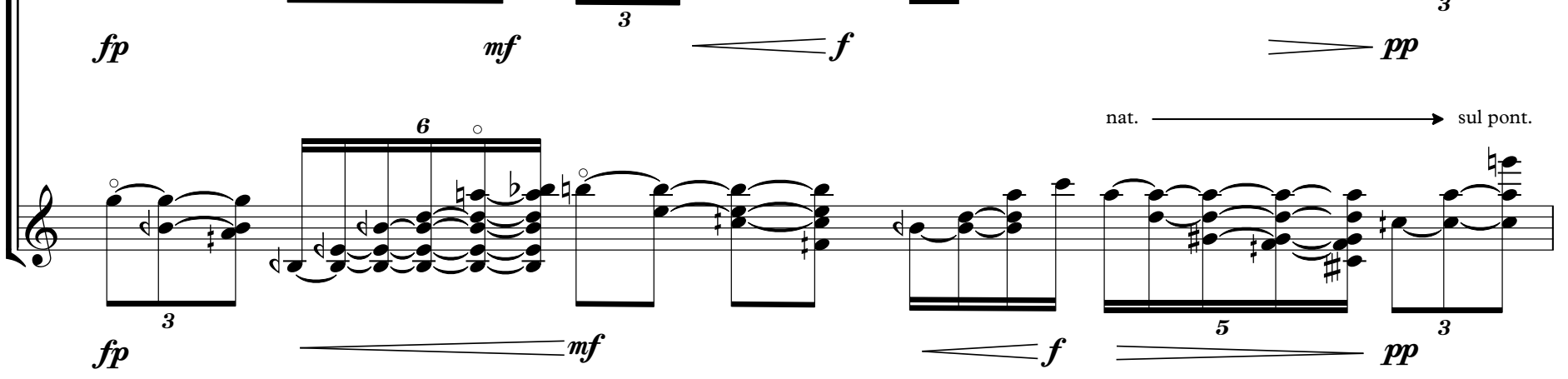
Gtr. 1



*fp* *mf* *f* *pp*

nat.  $\longrightarrow$  sul pont.

Gtr. 2



*fp* *mf* *f* *pp*

nat.  $\longrightarrow$  sul pont.

6

3

3

5

3

Detailed description: This block contains the musical notation for two guitar parts, Gtr. 1 and Gtr. 2, starting at 1:29.5. Gtr. 1 is in the treble clef and features a melodic line with slurs and triplets. Gtr. 2 is in the treble clef and features a more rhythmic accompaniment with chords and slurs. Dynamic markings include *fp*, *mf*, *f*, and *pp*. Performance instructions include *nat.* and *sul pont.* Fingering numbers 3, 6, and 5 are indicated.

1:36.5"

1:38"

1:41"

1:45"

Gtr. 1

*molto sul pont.*

*p* *mp* *p*

*nat.*

*pp*

Gtr. 2

*molto sul pont.*

*p* *mp* *p*

depress strings V and VI  
until 1:45"

Elec.

6

1:50"

1:55"

1:59.5"

Gtr. 1

dampen with RH

mf

f

LH VI

Gtr. 2

dampen with RH

mf

ff

f

sul pont.

LH VI

Pre-recorded Gtr. 1

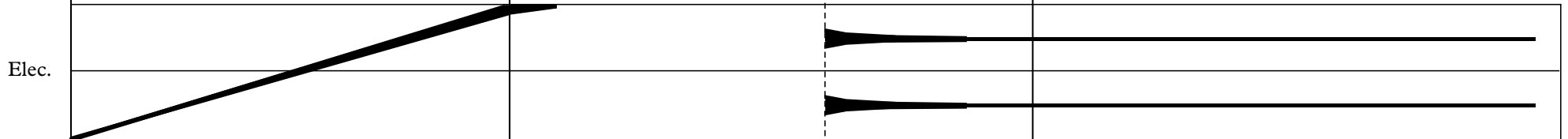
f

mf

Pre-recorded Gtr. 2

f

ff



2:03"

2:04.5"

2:07"

Gtr. 1

*f*

3

3 *ff*

Detailed description: Musical notation for Gtr. 1 in treble clef. It starts with a whole note chord (F#4, A4, C5) marked *f*. After a measure of rest, it features a triplet of eighth notes (F#4, A4, C5) marked *f*, followed by a triplet of sixteenth notes (F#4, A4, C5) marked *ff*. The piece ends with a final chord (F#4, A4, C5).

Gtr. 2

*f*

3

3

3

3

*ff*

Detailed description: Musical notation for Gtr. 2 in treble clef. It begins with a whole note chord (F#4, A4, C5) marked *f*. This is followed by a series of triplets: eighth notes (F#4, A4, C5), sixteenth notes (F#4, A4, C5), and thirty-second notes (F#4, A4, C5). The piece concludes with a triplet of sixteenth notes (F#4, A4, C5) marked *ff*.

Pre-recorded Gtr. 1

sul pont.

LH VI ↑

3

3

3

*f*

*ff*

Detailed description: Musical notation for Pre-recorded Gtr. 1 in treble clef. It starts with a whole note chord (F#4, A4, C5) marked *f*, with fingerings III, IV and a *sul pont.* instruction. This is followed by a series of triplets: eighth notes (F#4, A4, C5), sixteenth notes (F#4, A4, C5), and thirty-second notes (F#4, A4, C5). The piece ends with a triplet of sixteenth notes (F#4, A4, C5) marked *ff*. An annotation 'LH VI ↑' with an arrow points to the first measure.

Pre-recorded Gtr. 2

sul pont.

LH VI ↑

3

3

3

*f*

*ff*

Detailed description: Musical notation for Pre-recorded Gtr. 2 in treble clef. It starts with a whole note chord (F#4, A4, C5) marked *f*, with fingerings III, IV and a *sul pont.* instruction. This is followed by a series of triplets: eighth notes (F#4, A4, C5), sixteenth notes (F#4, A4, C5), and thirty-second notes (F#4, A4, C5). The piece ends with a triplet of sixteenth notes (F#4, A4, C5) marked *ff*. An annotation 'LH VI ↑' with an arrow points to the first measure.

Elec.

Detailed description: A graphic envelope generator for the electric guitar track. It shows a sharp attack to a sustained level, followed by a gradual decay towards the end of the piece.

2:10"

2:19.5"

Gtr. 1

Musical staff for Gtr. 1. It begins with a whole rest. At 2:19.5", it starts with a sharp key signature and a 7/8 time signature. The first measure contains a triplet of eighth notes (F#, G, A) with an accent (>) and a dynamic marking of *f*. The second measure contains a triplet of eighth notes (G, A, B) with an accent (>) and a dynamic marking of *ff*. The third measure contains a triplet of eighth notes (A, B, C) with an accent (>) and a dynamic marking of *p*. The staff ends with a decrescendo hairpin.

Gtr. 2

Musical staff for Gtr. 2. It begins with a whole rest. At 2:19.5", it starts with a 7/8 time signature. The first measure contains a triplet of eighth notes (F#, G, A) with an accent (>) and a dynamic marking of *f*. The second measure contains a triplet of eighth notes (G, A, B) with an accent (>) and a dynamic marking of *ff*. The third measure contains a triplet of eighth notes (A, B, C) with an accent (>) and a dynamic marking of *p*. The staff ends with a decrescendo hairpin.

Pre-recorded Gtr. 1

Musical staff for Pre-recorded Gtr. 1. It begins with a decrescendo hairpin from *pp* to *f*. At 2:19.5", it starts with a sharp key signature and a 7/8 time signature. The first measure contains a triplet of eighth notes (F#, G, A) with an accent (>) and a dynamic marking of *f*. The second measure contains a triplet of eighth notes (G, A, B) with an accent (>) and a dynamic marking of *ff*. The third measure contains a triplet of eighth notes (A, B, C) with an accent (>) and a dynamic marking of *p*. The staff ends with a decrescendo hairpin.

Pre-recorded Gtr. 2

Musical staff for Pre-recorded Gtr. 2. It begins with a decrescendo hairpin from *pp* to *f*. At 2:19.5", it starts with a sharp key signature and a 7/8 time signature. The first measure contains a triplet of eighth notes (F#, G, A) with an accent (>) and a dynamic marking of *f*. The second measure contains a triplet of eighth notes (G, A, B) with an accent (>) and a dynamic marking of *ff*. The third measure contains a triplet of eighth notes (A, B, C) with an accent (>) and a dynamic marking of *p*. The staff ends with a decrescendo hairpin.

Elec.

Two horizontal lines representing electric guitar signal. The top line has a solid black bar from 2:10" to 2:19.5" and a dashed black bar from 2:19.5" to the end of the page. The bottom line has a solid black bar from 2:10" to 2:19.5" and a solid black bar from 2:19.5" to the end of the page.

9

10

2:26"

2:27"

2:31"

2:36"

Gtr. 1

Musical notation for Gtr. 1 at 2:26. It features a treble clef, a key signature of one sharp (F#), and a 3-measure rest. The first measure contains a treble clef, a sharp sign, and a 3-measure rest. The second measure contains a treble clef, a sharp sign, and a 3-measure rest. The third measure contains a treble clef, a sharp sign, and a 3-measure rest. The dynamic marking *mf* is indicated below the staff.

Musical notation for Gtr. 1 at 2:31. It features a treble clef, a key signature of one sharp (F#), and a 3-measure rest. The first measure contains a treble clef, a sharp sign, and a 3-measure rest. The second measure contains a treble clef, a sharp sign, and a 3-measure rest. The third measure contains a treble clef, a sharp sign, and a 3-measure rest. The dynamic marking *p* is indicated below the staff. The text "RH" is written above the staff.

Gtr. 2

Musical notation for Gtr. 2 at 2:26-2:31. It features a treble clef, a key signature of one sharp (F#), and a 3-measure rest. The first measure contains a treble clef, a sharp sign, and a 3-measure rest. The second measure contains a treble clef, a sharp sign, and a 3-measure rest. The third measure contains a treble clef, a sharp sign, and a 3-measure rest. The dynamic marking *mf* is indicated below the staff. The text "LH tapping" and "gradually dampen with RH" are written above the staff with an arrow pointing right.

Musical notation for Gtr. 2 at 2:31. It features a treble clef, a key signature of one sharp (F#), and a 3-measure rest. The first measure contains a treble clef, a sharp sign, and a 3-measure rest. The second measure contains a treble clef, a sharp sign, and a 3-measure rest. The third measure contains a treble clef, a sharp sign, and a 3-measure rest. The dynamic marking *p* is indicated below the staff. The text "RH" is written above the staff.

Pre-recorded  
Gtr. 1

Musical notation for Pre-recorded Gtr. 1 at 2:26. It features a treble clef, a key signature of one sharp (F#), and a 3-measure rest. The first measure contains a treble clef, a sharp sign, and a 3-measure rest. The second measure contains a treble clef, a sharp sign, and a 3-measure rest. The third measure contains a treble clef, a sharp sign, and a 3-measure rest. The dynamic marking *mf* is indicated below the staff.

Musical notation for Pre-recorded Gtr. 1 at 2:31. It features a treble clef, a key signature of one sharp (F#), and a 3-measure rest. The first measure contains a treble clef, a sharp sign, and a 3-measure rest. The second measure contains a treble clef, a sharp sign, and a 3-measure rest. The third measure contains a treble clef, a sharp sign, and a 3-measure rest. The dynamic marking *p* is indicated below the staff.

Musical notation for Pre-recorded Gtr. 1 at 2:36. It features a treble clef, a key signature of one sharp (F#), and a 3-measure rest. The first measure contains a treble clef, a sharp sign, and a 3-measure rest. The second measure contains a treble clef, a sharp sign, and a 3-measure rest. The third measure contains a treble clef, a sharp sign, and a 3-measure rest. The dynamic marking *mf* is indicated below the staff.

Pre-recorded  
Gtr. 2

Musical notation for Pre-recorded Gtr. 2 at 2:26. It features a treble clef, a key signature of one sharp (F#), and a 3-measure rest. The first measure contains a treble clef, a sharp sign, and a 3-measure rest. The second measure contains a treble clef, a sharp sign, and a 3-measure rest. The third measure contains a treble clef, a sharp sign, and a 3-measure rest. The dynamic marking *mf* is indicated below the staff.

Musical notation for Pre-recorded Gtr. 2 at 2:31. It features a treble clef, a key signature of one sharp (F#), and a 3-measure rest. The first measure contains a treble clef, a sharp sign, and a 3-measure rest. The second measure contains a treble clef, a sharp sign, and a 3-measure rest. The third measure contains a treble clef, a sharp sign, and a 3-measure rest. The dynamic marking *p* is indicated below the staff.

Musical notation for Pre-recorded Gtr. 2 at 2:36. It features a treble clef, a key signature of one sharp (F#), and a 3-measure rest. The first measure contains a treble clef, a sharp sign, and a 3-measure rest. The second measure contains a treble clef, a sharp sign, and a 3-measure rest. The third measure contains a treble clef, a sharp sign, and a 3-measure rest. The dynamic marking *mf* is indicated below the staff.

Elec.

Electric guitar signal waveform at 2:26. It shows a solid black bar representing a sustained signal, starting at 2:26 and ending at 2:27.

Electric guitar signal waveform at 2:31. It shows a solid black bar representing a sustained signal, starting at 2:31 and ending at 2:36.

Electric guitar signal waveform at 2:36. It shows a solid black bar representing a sustained signal, starting at 2:36 and ending at 2:36.

11

12

2:46.5"

2:51"

3:00"

Gtr. 1

Musical staff for Gtr. 1 in 4/4 time. It features a treble clef and a 4/4 time signature. A vertical bar line is positioned at 2:46.5". At 2:51", there is a double bar line with a repeat sign, an upward-pointing arrow above the staff, and a dynamic marking of *p* below the staff. The staff contains a single note with a stem and a flag, which is a half note. The note is positioned on the second line of the staff. The staff continues to the end of the piece at 3:00".

Gtr. 2

Musical staff for Gtr. 2 in 4/4 time. It features a treble clef and a 4/4 time signature. A vertical bar line is positioned at 2:46.5". At 2:51", there is a double bar line with a repeat sign, an upward-pointing arrow above the staff, and a dynamic marking of *p* below the staff. The staff contains a single note with a stem and a flag, which is a half note. The note is positioned on the second line of the staff. The staff continues to the end of the piece at 3:00".

Pre-recorded  
Gtr. 1

Musical staff for Pre-recorded Gtr. 1 in 4/4 time. It features a treble clef and a 4/4 time signature. The staff contains a single note with a stem and a flag, which is a half note. The note is positioned on the second line of the staff. The staff continues to the end of the piece at 3:00".

Pre-recorded  
Gtr. 2

Musical staff for Pre-recorded Gtr. 2 in 4/4 time. It features a treble clef and a 4/4 time signature. The staff contains a single note with a stem and a flag, which is a half note. The note is positioned on the second line of the staff. The staff continues to the end of the piece at 3:00".

Elec.

Staff for Electric guitar (Elec.). It consists of three horizontal lines. The top and bottom lines are thick black bars, indicating sustained notes or effects. The middle line is a thin black bar. The staff continues to the end of the piece at 3:00".