COMPOSING WITH AN EXPANDED INSTRUMENTAL PALETTE

by
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A portfolio of musical compositions, written commentary and accompanying materials, submitted in fulfilment of the requirements of the degree of Doctor of Philosophy

Portfolio of Musical Compositions

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Awarded first prize at the Pablo Wendel - Performance Electrics International Composition Competition (2013).
PERFORMANCE NOTES

Instrumentation
Performer 1 (Electric Guitar 1)
Performer 2 (Electric Guitar 2)
Performer 3 (Electric Guitar 3)
Performer 4 (Acoustic Guitar 1 and Acoustic Bass Guitar 1)
Performer 5 (Acoustic Guitar 2 and Acoustic Bass Guitar 2)
Performer 6 (Acoustic Guitar 3)
Performer 7 (Acoustic Guitar 4)
Performer 8 (Acoustic Guitar 5)
Performer 9 (Acoustic Guitar 6)
Performer 10 (Electric Guitar 4)
Performer 11 (Electric Guitar 5)
Performer 12 (Electric Guitar 6)

To be conducted.

Duration: ca. 9 minutes

The conductor should follow a stopwatch. There is 15 seconds of silence at the beginning of the piece. This ensures that the conductor can cue Performers 1–3 to enter at precisely 0:15 (min:sec).

Stage Setup

Setup for Performers 1–3 (Electric Guitar) and 10–12 (Electric Guitar)
Performers 1–3 and 10–12 should stand throughout, and should therefore make use of a guitar strap to hold their instrument with.

Each electric guitar should be routed to a volume pedal, and from there to an amplifier set to a clean tone with a moderate amount of spring reverb (approx. 40% wetness). If possible, the bridge pickups should be used at all times. It is preferable, though not essential, that these be humbucker rather than single coil pickups. If a guitar with a single coil bridge pickup must be used, the instrument’s tone control should be set to 3 or 4 in order to blend with the humbucker equipped guitars, which should have their tone control set to 10. The amplifiers should be located in front of the performers (see Stage Setup).

The electric guitars are tuned so that each string is a quartertone apart (see fig. 1). There is no need to re-string these instruments as it is intended that the higher strings hang with considerably less tension than usual.

\[
\begin{align*}
E & \rightarrow \mu \quad \text{(D 1/4 tone flat)} \\
B & \rightarrow -2 \text{ semitones} \\
G & \rightarrow -5 \text{ semitones} \\
D & \rightarrow -8 \text{ semitones} \\
A & \rightarrow +2.5 \text{ semitones} \\
E & \rightarrow +7 \text{ semitones}
\end{align*}
\]

Fig. 1: Tuning of electric guitars (Performers 1–3, 10–12).

The particular spelling of the cluster shown in fig. 1 is used because it is the neatest possible option when it is written on a stave. Each instrument should have a capo placed on a different fret so that, when played in unison, a larger cluster is formed. For Electric Guitar 1, a capo is placed on fret 11, for Electric Guitar 2, a capo is placed on fret 10, for Electric Guitar 3, a capo is placed on fret 9, for Electric Guitar 4, a capo is placed on fret 8, for Electric Guitar 5, a capo is placed on fret 7, and for Electric Guitar 6, a capo is placed on fret 6.

Performers 1–3 and 10–12 are each required to use a piece of wooden dowel to bow their instruments with. This is an inexpensive cylindrical wooden rod that is available in most hardware stores. It should measure ca. 1 cm or less in diameter and between 75 and 100 cm in length. If possible, the dowel should have a smooth finish. Alternatively, the wooden stick of a violin, viola, or cello bow may be used. Additionally, Performers 1–3 and 10–12 are each required to use a soft or extra-soft headed marimba mallet to beat on the back of their guitar with.
PERFORMANCE NOTES (CONTINUED)

Setup for Performers 4–5 (Acoustic Guitar and Acoustic Bass Guitar) and Performers 6–9 (Acoustic Guitar)
Performers 4–9 should be seated throughout the performance. Each performer should rest their acoustic guitar or acoustic bass guitar upright on their lap and hold it in the style of a miniature cello.

The acoustic guitars and acoustic bass guitars should be steel-stringed instruments. It is preferable that these instruments are not amplified. If they are too quiet in the overall balance, their sound should be subtly augmented with microphone based, rather than pickup based amplification.

The acoustic guitars are tuned so that each string is a quarteone apart (see fig. 2). There is no need to re-string these instruments as it is intended that the higher strings hang with considerably less tension than usual.

\[
\begin{align*}
E & \rightarrow 20.5 \text{ semitones} & G &= (G 1/4 \text{ tone sharp}) \\
B & \rightarrow 18 \text{ semitones} & G &= G \\
G & \rightarrow 19.5 \text{ semitones} & F &= (G 1/4 \text{ tone flat}) \\
D & \rightarrow 8 \text{ semitones} & F &= F \\
A & \rightarrow 3.5 \text{ semitones} & F &= F \ (F 1/4 \text{ tone sharp}) \\
E & \rightarrow 1 \text{ semitones} & F &= F \\
\end{align*}
\]

Fig. 2: Tuning of acoustic guitars (Performers 4–9).

The particular spelling of the cluster shown in fig. 2 is used because it is the neatest possible option when it is written on a stave. Each instrument should have a capo placed on a different fret so that, when played in unison, a larger cluster is formed. For Acoustic Guitar 1, a capo is placed on fret 4, for Acoustic Guitar 2, a capo is placed on fret 5, for Acoustic Guitar 3, a capo is placed on fret 3, for Acoustic Guitar 4, a capo is placed on fret 2, for Acoustic Guitar 5, a capo is placed on fret 1, and for Acoustic Guitar 6, no capo is used.

Similarly, the acoustic bass guitars are tuned so that each string is a quarter tone apart (see fig. 3). There is no need to re-string these instruments as it is intended that the higher strings hang with less tension than usual.

\[
\begin{align*}
G & \rightarrow 12.5 \text{ semitones} & G &= (G 1/4 \text{ tone flat}) \\
D & \rightarrow 8 \text{ semitones} & G &= G \\
A & \rightarrow 3.5 \text{ semitones} & F &= (F 1/4 \text{ tone sharp}) \\
E & \rightarrow 1 \text{ semitones} & F &= F \\
\end{align*}
\]

Fig. 3: Tuning of acoustic bass guitars (Performers 4–5).

The particular spelling of the cluster shown in fig. 3 is used because it is the neatest possible option when it is written on a stave. Each instrument should have a capo placed on a different fret so that, when played in unison, a larger cluster is formed. For Acoustic Bass Guitar 1, a capo is placed on fret 5, and for Acoustic Bass Guitar 2, a capo is placed on fret 4.

Performers 4–9 are each required to use a violin, a viola, or a cello bow on their instruments. For approximately the first 6 minutes of the piece, each bow should have its hair loosened to the point where it hangs with little or no tension.

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, graphic musical cells have been plotted on a horizontal timeline. These cells indicate when the performers should be playing, and the blank spaces in between represent a period in which they should either be silent or allowing their previous statement to ring out. The time is written at the top of every page and is indicated every fifteen seconds. Each page equates to one minute. As the instruments in this piece are used in unconventional ways, traditional staves and dynamic markings have been eschewed in favour of a series of visual graphs that indicate the subtly changing dynamic and timbral parameters of each instrument. Playing begins at the triple vertical line to the left of each graph, and then ceases at the double vertical line to the right.

Each system is divided into four groups, and each of these groups represent between two and four of the performers. The visual graphs that correspond with a particular group are intended to direct all of the performers within that group.

Specifics of Notation
Performers 1–3 and 10–12 (Electric Guitar)
The example shown in fig. 4 is a modification of guitar tablature notation. The tablature to the left of the triple vertical line indicates at which frets, if any, the strings should be interacted with. In this case, a piece of wooden dowel should be held against the muted strings, above the metal wire of fret 6 (note that the fret numbers are transposed according to where the capo is placed on each instrument). The three staves located above the tablature indicate the resulting harmony for each of the three instruments within the group. Playing commences after the triple vertical line at 0:00 (min:sec). The modified tablature stave thereafter (i.e. the Bowing Focus stave) conveys which of the strings each performer should focus their piece of dowel on. In this example, only the top three strings are bowed initially, then all six at 0:15. Playing ceases at the double vertical line at 0:30.

![Fig. 4: Fretting hand position and Bow Focus stave](relevant to Performers 1–3 and Performers 10–12).

(Continued on the next page).
PERFORMANCE NOTES (CONTINUED)

Specifics of Notation (continued)
Performers 1–3 and Performers 10–12 (continued)

Because the instruments are manipulated in unusual ways, various parameters, such as the speed and pressure at which they are bowed with pieces of dowel, or the speed and velocity at which they are beaten with mallets, greatly affect the dynamics as well as the tone of the overall sound. As traditional markings would be insufficient here, the speed and pressure (or velocity) of the action in question are conveyed using wedges that are plotted on graphs. These graphs lie on top of one another, with mirrored extremes, as if they are two sides of the same object (i.e. the dynamic envelope). In the example shown in fig. 5, the performers begin bowing (with pieces of dowel) at a minimum speed and pressure after the triple vertical line, and steadily increase both parameters. These parameters peak at one point, and then steadily decrease until playing ceases at the double vertical line.

All other notation is explained within the score itself.

Performers 4–5 (Acoustic Guitar and Acoustic Bass Guitar) and Performers 6–9 (Acoustic Guitar)

The example shown in fig. 6 is a modification of guitar tablature notation. The tablature to the left of the triple vertical line indicates at which frets, if any, the strings should be interacted with. In this case, the natural harmonic above the twelfth fret should be barred across all six strings (note that the fret numbers are transposed according to where the capo is placed on each instrument), while the strings are bowed using the Loose Bow, Tight Grip action. The three staves located above the tablature indicate the resulting harmony for each of the three instruments within the group. Playing commences after the triple vertical line at 0:00 (min:sec). The modified tablature stave thereafter (i.e. the Bowing Focus stave) conveys which of the strings each performer should focus their bow on. In this example, only the top three strings are bowed initially, then all six at 0:15. Playing ceases at the double vertical line at 0:30.

Because the instruments are bowed in unusual ways, the speed and pressure of the bowing greatly affect the dynamics as well as the tone of the overall sound. As traditional markings would be insufficient here, the speed and pressure of the bowing are conveyed using wedges that are plotted on graphs. These graphs lie on top of one another, with mirrored extremes, as if they are two sides of the same object (i.e. the dynamic envelope). In the example shown in fig. 7, the performers begin bowing at a minimum speed and pressure after the triple vertical line, and steadily increase both parameters. These parameters peak at one point, and then steadily decrease until playing ceases at the double vertical line.

All other notation is explained within the score itself.
Illustrations of Gestures
Performers 1–3, 10–12 (Electric Guitar)

Dowel Bow
(0:15 for Performers 1–3, 1:15 for Performers 10–12).

Mallet Tremolo
(4:15 for Performers 1–13, 5:30 for Performers 10–12).

Performers 4–9 (Acoustic Guitar, Acoustic Bass Guitar)

Loose Bow, Tight Grip
(1:30 for Performers 4–6, 2:15 for Performers 7–9).

Loose Bow, Loose Grip
(5:00 for Performers 4–6, 5:15 for Performers 7–9).

Tight Bow
(6:30 for Performers 4–9).

All other performance techniques are explained within the score itself.
### TUNING

The table below shows the resulting pitch modification of tuning (in semitones) for each performer.

<table>
<thead>
<tr>
<th>PERFORMERS</th>
<th>ELECTRIC GUITAR</th>
<th>ACOUSTIC GUITAR</th>
<th>TIME IN MIN:SEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–3</td>
<td>Capo fret 11</td>
<td>Capo fret 5</td>
<td>0:00</td>
</tr>
<tr>
<td>4–6</td>
<td>Capo fret 4</td>
<td>Capo fret 4</td>
<td>0:15</td>
</tr>
<tr>
<td>7–9</td>
<td>Capo fret 3</td>
<td>Capo fret 3</td>
<td>0:30</td>
</tr>
<tr>
<td>10–12</td>
<td>Capo fret 8</td>
<td>No capo</td>
<td>0:45</td>
</tr>
</tbody>
</table>

#### BOWING FOCUS

For PERFORMERS 1–3 (ELECTRIC GUITAR):
- **E. GTR. 1**
- **E. GTR. 2**
- **E. GTR. 3**

For PERFORMERS 4–6 (ACOUSTIC GUITAR):
- **ACOUSTIC GTR. 1**: Capo fret 5
- **ACOUSTIC GTR. 2**: Capo fret 4
- **ACOUSTIC GTR. 3**: Capo fret 3

For PERFORMERS 7–9 (ACOUSTIC GUITAR):
- **ACOUSTIC GTR. 4**: Capo fret 2
- **ACOUSTIC GTR. 5**: Capo fret 1
- **ACOUSTIC GTR. 6**: No capo

For PERFORMERS 10–12 (ELECTRIC GUITAR):
- **E. GTR. 4**: Capo fret 8
- **E. GTR. 5**: Capo fret 7
- **E. GTR. 6**: Capo fret 6

#### BOWING SPEED

- **Dowel Bow**: Using one's strumming hand, bow with a piece of wooden dowel above fret 6 (the metal wire of the fret) of the specified strings. Mute all strings between frets 5 and 6 with one's fretting hand, ensuring that each string only resonates between fret 6 and the bridge, and also that the position of the dowel is supported by one's fretting hand.

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**Playing begins after the triple vertical line.**
Loose Bow, Tight Grip.
Bow with a violin/viola/cello bow that has had its hair loosened to the point where it hangs with little or no tension. The bow should be held with a chopstick-like grip. Temporarily increase the tension of the bow by pressing against the hair with the middle finger of one’s bowing hand, as if to simulate playing with a tightened bow.

Default bowing position (ca. 12 cm from the bridge)

Dowel Bow.
Using one’s strumming hand, bow with a piece of wooden dowel above fret 6 (the metal wire of the fret) of the specified strings. Mute all strings between frets 5 and 6 with one’s fretting hand, ensuring that each string only resonates between fret 6 and the bridge, and also that the position of the dowel is supported by one’s fretting hand.

Playing begins after the triple vertical line.
**BOWING PRESSURE**

<table>
<thead>
<tr>
<th>Time</th>
<th>Bowing Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00</td>
<td>(V.P. = 100%)</td>
</tr>
<tr>
<td>2:30</td>
<td>V.P. = 60%</td>
</tr>
<tr>
<td>2:45</td>
<td>V.P. = 80%</td>
</tr>
</tbody>
</table>

**BOWING SPEED**

<table>
<thead>
<tr>
<th>Time</th>
<th>Bowing Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00</td>
<td></td>
</tr>
<tr>
<td>2:30</td>
<td></td>
</tr>
<tr>
<td>2:45</td>
<td></td>
</tr>
</tbody>
</table>

**BOWING FOCUS**

<table>
<thead>
<tr>
<th>Time</th>
<th>Bowing Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00</td>
<td></td>
</tr>
<tr>
<td>2:30</td>
<td></td>
</tr>
<tr>
<td>2:45</td>
<td></td>
</tr>
</tbody>
</table>

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**PERF. 1–3**

(E. GTR.)

Loose Bow, Tight Grip.

Bow with a violin/viola/cello bow that has its hair loosened to the point where it hangs with little or no tension. The bow should be held with a chopstick-like grip. Temporarily increase the tension of the bow by pressing against the hair with the middle finger of one's bowing hand, as if to simulate playing with a tightened bow.

Default bowing position (ca. 12 cm from the bridge)

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**PERF. 4–6**

(A. C. GTR.)

---

**PERF. 7–9**

(A. C. GTR.)

---

**PERF. 10–12**

(E. GTR.)
Playing ceases at the double vertical line.
Mallet Tremolo. Rapidly beat on the back of the guitar with a soft or extra-soft headed marimba mallet with one’s fretting hand. Hold the guitar away from one’s body with one’s strumming hand, ensuring that the strings remain open and unmuted. Aim for a resonant and sustained sound rather than a busy and percussive one.

Gradually release the harmonics so that the open strings are bowed.
PERFORMER 4:
Switch from Acoustic Guitar 1 to Acoustic Bass Guitar 1. Tighten the bow to its standard tension for playing.

PERFORMER 5:
Switch from Acoustic Guitar 2 to Acoustic Bass Guitar 2. Tighten the bow to its standard tension for playing.

PERFORMER 6:
Tighten the bow to its standard tension for playing. Read from the 3rd system until the end of the piece.

Loose Bow, Loose Grip.
While continuing to bow, release one’s middle finger from pressing against the hair of the bow so that it hangs loosely with little or no tension. Both the hair and the wood of the bow should make contact with the strings.

Gradually move bowing position from the default position (ca. 12 cm from the bridge) to one approx. 0.5 cm from the bridge, so that the sound “fizzes out.”

Loose Bow, Loose Grip.
While continuing to bow, release one’s middle finger from pressing against the hair of the bow so that it hangs loosely with little or no tension. Both the hair and the wood of the bow should make contact with the strings.

Gradually move bowing position from the default position (ca. 12 cm from the bridge) to one approx. 0.5 cm from the bridge, so that the sound “fizzes out.”

Malieal Tremolo.
Rapidly beat on the back of the guitar with a soft or extra-soft headed marimba mallet with one’s fretting hand. Hold the guitar away from one’s body with one’s strumming hand, ensuring that the strings remain open and unmuted. Aim for a resonant and sustained sound rather than a busy and percussive one.
ACOUSTIC BASS GUITAR 1:
Capo fret 5

ACOUSTIC BASS GUITAR 2:
Capo fret 4

PERF. 1–3
(E. GTR.)

PERF. 4–5
(ACOUSTIC BASS GUITAR)

PERF. 6–9
(A.C. GTR.)

PERF. 10–12
(E. GTR.)

TIGHT BOW.
The tension of the bow’s hair should be high, as in standard performance practice.
Gradually move bowing position from the default position (ca. 12 cm from the bridge) to one approx. 0.5 cm from the bridge, so that the sound “fizzes out.”

TIGHT BOW.
The tension of the bow’s hair should be high, as in standard performance practice.
Gradually move bowing position from the default position (ca. 12 cm from the bridge) to one approx. 0.5 cm from the bridge, so that the sound “fizzes out.”

ACOUSTIC BASS GUITAR 3

ACOUSTIC BASS GUITAR 4

ACOUSTIC BASS GUITAR 5

ACOUSTIC BASS GUITAR 6

PERFORMERS 7–9:

Tighten the bow to its standard tension for playing.

V.P. = 100%  V.P. = 80%  V.P. = 60%

V.P. = 80%  V.P. = 60%
PERF. 1–3 (E. GTR.)

BOWING PRESSURE

BOWING FOCUS

BOWING SPEED

TREMOLO VELOCITY

V.P. = 60%  V.P. = 40%  V.P. = 0%

PERF. 4–5 (AC. B. GTR.)

BOWING PRESSURE

BOWING FOCUS

BOWING SPEED

PERF. 6–9 (AC. GTR.)

BOWING PRESSURE

BOWING FOCUS

BOWING SPEED

PERF. 10–12 (E. GTR.)

BOWING PRESSURE

BOWING FOCUS

BOWING SPEED

Let ring.

Bow 0.5 cm from bridge.

Bow 0.5 cm from bridge.
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 \( L \). 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 \( B \).

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 \( C_1 \) \( B_0 \), as this is what is required in order to match the dominant higher pitch of the multiphonic at rehearsal mark \( M \) 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 \( B \)). 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 \( M \)) 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 beeloweach 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.
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.
B.H. Perform the specific gesture(s) using both hands.
L.H. Perform the specific gesture(s) using one's left hand.

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 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 cm² 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-rosined 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.
Symbols (those not explained under Clefs, in order of appearance)

\[ \text{Modulate between } f \text{ and } fff \text{ at one's discretion.} \]

\[ \text{Flick the given string with one's fingernail.} \]

\[ \text{Flick the given string with one's fingertip.} \]

\[ \text{Continue the passage ad libitum until the end of the solid horizontal line.} \]

\[ \text{Tap the given surface with one's fingernail.} \]

\[ \text{Tap the given surface with one's fingernail and scrape outwards.} \]

\[ \text{Tap the given surface with one's fingertip and scrape inwards.} \]

\[ \text{Continue the passage ad libitum on to the next system.} \]

\[ \text{Bowed behind the node multiphonic. While touching the string (the pitch of which is represented by the lower solid note head) at the given harmonic node (the diamond note head) with a finger of one's left hand, bow ca. 1–2 cm behind this node with a slow bowing speed and firm pressure (though not quite firm enough to generate a scratch tone) to produce a multiphonic. The dominant, higher pitch of this multiphonic is represented by the smaller solid note head in parentheses.} \]

\[ \text{Bow. Alternate between upbowing and downbowing at one's discretion.} \]

\[ \text{Pluck the given string with one's fingernail.} \]

\[ \text{Pluck the given string with one's fingertip.} \]

\[ \text{Dynamic not applicable. Here, the particular parameter this refers to (an angle or a position) remains static and helps shape the overall sound rather than generating a sound on its own.} \]

\[ \text{The highest possible pitch on the given string (one's finger should be placed ca. 1 cm in front of bridge).} \]

\[ \text{Tap the given surface with one's fingernail and scrape inwards.} \]

\[ \text{Tap the given surface with one's fingertip.} \]

\[ \text{Tap the given surface with one's fingertip and scrape outwards.} \]

\[ \text{Downbow for less than a second before quickly resuming an upbow.} \]

\[ \text{Presence of pitch among the noise. The solid, thick horizontal line on the bottom represents where or on what string one should bow with Bow 1. The vertical lines above it represent the dynamic envelope of the pitch (or dominant pitch) in relation to the noise of the texture (or overall multiphonic), whereby the longer the vertical line, the more present this pitch is. The presence is altered, for the most part, by modulating the bowing pressure. Aside from controlling the pitch:noise ratio of the texture, this also affects the dynamic to a certain extent. The bowing speed, on the other hand, affects the overall dynamic of the texture in a less biased way.} \]

\[ \text{Bow slippage boundary. The solid, thick horizontal line in the middle represents where on the bridge face one should aim to bow with Bow 1. However, because the tip of Bow 1 is simultaneously being firmly bowed with Bow 2, it is difficult to hold this position precisely and natural perpendicular slippage of the Bow 1 will likely occur. This slippage and its resulting complex scratching noise should be embraced. The dotted horizontal lines represent the boundary within which one should allow this to happen.} \]
**Scordatura**: String IV, depending on the pitch produced at rehearsal mark. 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.

**Copyright © Paul McGuire 2014**
Busy, uneven and violent scurrying. Fingers only. Sul ponticello/normale (range of fingers). Mute strings I–IV with thumb (and chin).

Mod. between $f$ and $fff$

Continue ad libitum. Maintain a relatively consistent textural density.

---

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.

$n/a$ $mf$

$f$ (overall dynamic)

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

---

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.

$n/a$ $mf$

$mp$ $mf$

(overall dynamic)

Mute strings I–IV with hand.

Silently put down Bow 1.
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.

R.H.

10°

Mod. between mf and f

Busy, uneven and somewhat muted scurrying.
Fingers and thumb.
Sul ponticello/normale (range of fingers).
Mute strings I–IV with hand.

25°

Continue ad libitum. Maintain a relatively consistent textural density.

10°

Mod. between f and fff

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

20°

R.H.

Mute strings I–IV with (and thumb of 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.

18°

L.H.

I

II

III

IV

Silently pick up Bow 1.

Busy, uneven and somewhat muted scurrying.
Fingers and thumb.

R.H.

10°

Mod. between pp and mp

L.H.

Mute strings I–IV with hand.

20°

Mod. between ppp and mp

Silently pick up Bow 1.

18°

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

Continue as before.
Bow 1: Standard grip.
Lean quite firmly.
Mute strings I–III with unused fingers of L.H.

---

**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. 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.

---

With Bow 1: Standard grip.
Lean quite firmly.

---

*** As with the statements at rehearsal marks and , the vertical lines on this stave represent the dynamic envelope of the pitch in relation to the noise of the texture, as opposed to a modulation of the bowing position.
**L.H.**
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.

**R.H.**
Mute strings I–IV with chin.

A combination of pink noise and crunching sounds, with intermittent high register squeaking.

Bow 1: Standard grip.

Lean heavily.

<table>
<thead>
<tr>
<th>25°</th>
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<tbody>
<tr>
<td>Mute strings I–IV with chin.</td>
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<td>Lean heavily.</td>
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<tr>
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<td>Lean heavily.</td>
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</table>

**R.H.**
Mute strings I–IV with chin.

A combination of pink noise and crunching sounds, with intermittent high register squeaking.

Bow 1: Standard grip.

Lean heavily.

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</tbody>
</table>

**L.H.**
Deep rumbling and rattling.

Bow 2 (standard tension): Standard grip.

Lean heavily.

Continue ad libitum. Maintain a consistent textural density.

**R.H.**
Deep rumbling and rattling.

Bow 2 (standard tension): Standard grip.

Lean heavily.

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

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

Mute strings I–IV with chin.

With Bow 1: Standard grip.

Lean heavily.

Continue ad libitum. Maintain a relatively consistent textural density.

\[ \text{Mute strings I–IV with chin.} \\
\text{With Bow 1: Standard grip.} \\
\text{Lean heavily.} \\
\text{Continue ad libitum. Maintain a relatively consistent textural density.} \]
Continue as before. Maintain a relatively consistent textural density.

Mute strings I–IV with chin.
Bow 1: Standard grip.
Lean firmly.

Increase the amount of wrapping scraping as the dynamic of L.H. increases.

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.

R.H.

Continue ad libitum. Maintain a relatively consistent textural density.

n/a

1/2 point of Bow 1.
Allow the wood of Bow 1 to vibrate and rattle against the cello as it is being bowed.

L.H.

Deep rumbling and rattling.
Bow 2: Standard grip.
Lean heavily.

n/a

Begin by bowing quite slowly. Increase and decrease the bowing speed along with the increasing and decreasing dynamics.

Continue ad libitum. Maintain a relatively consistent textural density.

mf

ARCO

1/2 point of Bow 1.
Allow the wood of Bow 1 to vibrate and rattle against the cello as it is being bowed.

L.H.

Deep rumbling and rattling.
Bow 2: Standard grip.
Lean heavily.

n/a

Begin by bowing quite slowly. Increase and decrease the bowing speed along with the increasing and decreasing dynamics.

Continue ad libitum. Maintain a relatively consistent textural density.

mf

ARCO

1/2 point of Bow 1.
Allow the wood of Bow 1 to vibrate and rattle against the cello as it is being bowed.

L.H.

Deep rumbling and rattling.
Bow 2: Standard grip.
Lean heavily.

n/a

Begin by bowing quite slowly. Increase and decrease the bowing speed along with the increasing and decreasing dynamics.

Continue ad libitum. Maintain a relatively consistent textural density.

mf

ARCO

1/2 point of Bow 1.
Allow the wood of Bow 1 to vibrate and rattle against the cello as it is being bowed.

L.H.

Deep rumbling and rattling.
Bow 2: Standard grip.
Lean heavily.

n/a

Begin by bowing quite slowly. Increase and decrease the bowing speed along with the increasing and decreasing dynamics.
FULL SCORE
(FOR REHEARSAL)
PERFORMANCE NOTES

Instrumentation

Percussion 1
Percussion 2

Duration: ca. 14 minutes

This piece does not require a conductor. However, the performer of Percussion 1 should lead the piece and cue where appropriate.

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

The performers should only use the full score as a means to learn the piece. In concert, they should recall its intricacies as accurately as possible from memory with the aid of the shorthand score. This is in the interest of a fluid and organic live performance.

The instruments should be amplified in order to project the microdetails of the various sounds. It is preferable that each drum (floor tom/snare drum) be close miked from above with an individual condenser microphone, placed at a distance of ca. 40 cm from the instrument (i.e. two microphones per performer). No contact microphones should be used. The overall signal should output in stereo to a pair of large loudspeakers, located either side of the performance area. Percussion 1 should be panned to the 2 o’clock position in the stereo field, while Performer 1 should be panned to the 10 o’clock position.

Stage Setup

Percussion 1 Setup

The performer should be seated on the right side of the stage throughout (from the perspective of the audience, see Stage Setup).

The required instruments for this part are a floor tom (with a coated top head) and a prepared snare drum (with a coated top head).

The snare drum should be prepared by crudely sticking 4 x ca. 15 cm strips of duct tape beside one another on the top head, ca. 10 cm from the edge. Another 4 x ca. 15 cm strips should be crudely stuck beside one another on top of, and at a perpendicular angle to these strips. The surface of this duct tape should be uneven, and should make a frictional sound when scratched with one’s fingers. 2 x ca. 15 cm strips of sandpaper tape should be stuck near to one another on the top head, ca. 10 cm from the edge. A ca. 40 cm x 40 cm microfibre cloth should also be placed on the top head. See fig. 1 for the location of these preparations. The strainer should be switched off throughout the performance.

The floor tom should be placed to the performer’s right, and the prepared snare drum to their left.

The performer is required to have 2 x retractable metal-stranded drum brushes (referred to as “Brush 1” and “Brush 2” throughout the score), 2 x superbball mallets with a plastic stick ca. 0.7 cm in diameter, 1 x soft yarn mallet, 1 x double bass bow, 1 x ca. 40 cm x 40 cm microfibre cloth (mentioned above) and 1 x ca. 60 cm x 40 cm tea towel.

Brush 1 should be almost entirely retracted at the beginning of the piece, while Brush 2 should be half-open throughout the performance. The strands of Brush 2 should be pierced through the tea towel (ca. 15 cm from the corner) at the beginning of the piece.

The sticks of Superball Mallets 1 and 2 should be moderately rosin.
PERFORMANCE NOTES (CONTINUED)

Percussion 2 Setup
The performer should be seated on the left side of the stage throughout (from the perspective of the audience, see Stage Setup).

The required instruments for this part are a prepared floor tom (with a coated top head), a prepared snare drum (with a coated top head) and 2 x grenadine claves.

The floor tom should be prepared by placing a ca. 20 cm x 20 cm sheet of coarse sandpaper (sand-side facing upwards) at approximately the centre of the top head.

The snare drum should be prepared by crudely sticking 4 x ca. 15 cm strips of duct tape beside another on the top head, ca. 10 cm from the edge. Another 4 x ca. 15 cm strips should be crudely stuck beside another on top of, and at a perpendicular angle to these strips. The surface of this duct tape should be uneven, and should make a frictional sound when scratched with one's fingers. 2 x ca. 15 cm strips of sandpaper tape should be stuck near to one another on the top head, ca. 10 cm from the edge. In addition, ca. 150 g of sea salt crystals should be scattered over the top head. A ca. 40 cm x 40 cm microfibre cloth should also be placed on the top head. See fig. 2 for the location of these preparations. The strainer should be switched off throughout the performance.

The prepared floor tom should be placed to the performer’s right, and the prepared snare drum to their left.

The performer is required to have 1 x retractable metal-stranded drum brush (referred to as simply “brush” throughout the score), 1 x mallet with a plastic stick ca. 0.7 cm in diameter, 1 x ca. 20 cm x 20 cm coarse sandpaper (mentioned above), 1 x ca. 40 cm x 40 cm microfibre cloth (mentioned above), and ca. 150 g of sea salt crystals (mentioned above).

The brush should be half-open throughout the performance.

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 performers should be playing, and the blank spaces in between represent a period in which they should either be silent or allowing their previous statement to ring out. 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 performers should not follow stopwatches, but instead should use their collective intuition to dictate the length of each phrase. As the instruments in this piece are used in unconventional ways, traditional staves have been eschewed, for the most part, in favour of a series of visual graphs that represent the various shifting parameters of each performer’s part.

The text above the beginning of each passage indicates the instrument to be used for that particular gesture (in BOLD UPPER CASE TEXT), a summary of the action(s) involved and the implement(s) to be used (both in BOLD LOWER CASE TEXT), as well as the type of grip to be used on the implement and a general performance direction (both in light lower case text). See fig. 3 for a simplified example.

INSTRUMENT TO BE USED THROUGHOUT PASSAGE:
Summary of action(s) involved and implement(s) to be used in passage.
Grip to be used on the implement. General performance direction (not always present).

Fig. 3: Simplified example of text written at the beginning of a passage.

Hands

R.H. Perform the specific gesture(s) using one’s right hand.
B.H. Perform the specific gesture(s) using both hands.

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

Summaries of Actions (a select list, in order of appearance)

Focus the strand tips of Brush(es) 1 and/or 2 on a single spot on the top head of the floor tom and stir. The action should feel like drawing repeating circles in the air with one’s wrist, rather than like twisting a screwdriver. The sound should be crackly and busy.

While ensuring its/their strands pierced through the tea towel, focus the strand tips of Brush(es) 1 and/or 2 on a single spot on the top head of the floor tom and stir. The action should feel like drawing repeating circles in the air with one’s wrist, rather than like twisting a screwdriver. The sound should be muted, crackly and busy.

(Continued on the next page).
PERFORMANCE NOTES (CONTINUED)

Summaries of Actions (a select list, continued)

Percussion 1 (continued)

With its strands pierced through the tea towel, and ensuring its strand tips maintain contact with the top head of the floor tom, drag Brush 2 from one position to another on the top head to create a muted, percussive and frictional sound.

While holding Superball Mallet 2 by its plastic stick so that its superball head touches the top head of the floor tom, beat its plastic stick with Superball Mallet 1 to create a hollow thud.

While holding Superball Mallets 1 and 2 by their plastic sticks with one's left hand so that their superball heads touch the top head of the floor tom, slowly and firmly move one's grip up the rosined plastic sticks to create a low, frictional rumble.

With the microfibre cloth placed flat on the top head of the prepared snare drum and held in place with with one's left hand, focus the strand tips of Brushes 1 and 2 on a single spot on the microfibre cloth with one's right hand, and stir. The action should feel like drawing repeating circles in the air with one's wrist, rather than like twisting a screwdriver. The sound should be muted, crackly and busy.

Hold Superball Mallet 1 by its stick so that its superball head hovers ca. 1–2 mm above the top head of the floor tom. When the top head vibrates, it should do so against the superball and cause a buzzing sound.

While holding Superball Mallets 1 and 2 by their plastic sticks so that their superball heads touch the top head of the floor tom, slowly and firmly move one’s grip up the rosined plastic sticks to create a low, frictional rumble.

Percussion 2

Focus the strand tips of the brush on a single spot on the shell of the prepared floor tom and str. The action should feel like drawing repeating circles in the air with one's wrist, rather than like twisting a screwdriver. The sound should be crackly and busy.

While holding the mallet upside down, and ensuring that the end of its plastic stick maintains contact with the top head of the prepared floor tom (the stick should be angled ca. 45° in relation to the top head), drag the mallet from one position to another to create a low, frictional sound.

With the sheet of sandpaper placed flat (sand side facing upwards) on the top head of the prepared floor tom, focus the strand tips of the brush on a single spot on the sandpaper and str. The action should feel like drawing repeating circles in the air with one’s wrist, rather than like twisting a screwdriver. The sound should be bright, crackly and busy.

Grips (in order of appearance)

Percussion 1

Downward dagger grip (Brush 1 in right hand shown):

Mallet grip (Superball Mallet 2 in left hand shown):

Double downward dagger grip (Brushes 1 [white] and 2 [black] in right hand shown):

Double mallet grip: (Superball Mallets 1 [white] and 2 [black] in left hand shown):

Asymmetric double mallet grip (Superball mallets 1 [white] and 2 [black] in left hand shown):

(Continued on the next page).
PERFORMANCE NOTES (CONTINUED)

Grips (continued)

**Percussion 2**

Pinch grip (brush in left hand shown):

Upside down mallet grip (mallet in left hand shown):

Clefs

**Percussion 1**

Brush 1 retraction clef. The height of the vertical line-filled wedge on the corresponding stave depicts the retraction level of Brush 1. The top line of the corresponding stave represents a fully opened brush, while the bottom line represents a fully retracted brush. Therefore the higher reaching the wedge, the more open Brush 1 should be (note that neither Brush 1 nor Brush 2 should ever be more than half-open).

Implement position clef. The corresponding diagram and stave show where on an instrument an implement(s) should be placed at a given moment, along with the type of implement to be used (see Symbols). If there is more than one position shown, then the performer should drag the implement, when directed, from the starting position (always written as a ‘1’) for that particular gesture to the next position (‘2’), and then onto the next position (‘3’) if there is one, and so on. Note that the sequence of numbers resets for each gesture, so that the beginning position for the second gesture, for example, is written as ‘1,’ and also that if more than one implement is used in a given gesture, separate sequences of position numbers apply to each implement. See fig. 4 for more details.

Aggressiveness clef. The height of the solid black wedge on the corresponding stave depicts the aggressiveness (the firmness and speed, essentially the dynamic) of the action in question. The top line of the corresponding stave represents maximum aggressiveness, while the bottom line represents minimum aggressiveness. Therefore the higher reaching the wedge, the more aggressive the action should be.

(Continued on the next page).
PERFORMANCE NOTES (CONTINUED)

Clefs (continued)

Percussion 1 (continued)

Plastic sticks of Superball Mallet(s) 1 and/or 2 clef. The horizontal, line-filled wedge on the corresponding stave depicts how far one’s grip on the plastic sticks of Superball Mallet(s) 1 and/or 2 should be from the head(s). The top line of the corresponding stave represents the maximum distance from the head, while the bottom line represents the minimum distance. Therefore the higher reaching the wedge, the further one’s grip should be from the head(s). A thicker solid black line on the corresponding stave depicts the position at which the plastic sticks of Superball Mallets 1 and 2 should be bowed. Note that image of the clef itself adjusts each time to show how the superball mallets are being used at that particular moment (e.g. the amount of mallets being gripped, whether or not a bow is being used on them, the distance of one’s grip from the head(s) of the mallets and the type of grip being used).

Beat stick of Superball Mallet 2 with Superball Mallet 1 clef. A notehead on the corresponding stave depicts when one should beat the stick of Superball Mallet 2 with Superball Mallet 1.

Bend applied to plastic sticks of Superball Mallets 1 and 2 clef. The height of the dot-filled wedge on the corresponding stave depicts the amount of bend one should apply to the plastic sticks of Superball Mallets 1 and 2 with one’s left hand. This action affects pitch and colour of the tone produced when the plastic sticks are bowed. The top line of the corresponding stave represents the maximum amount of bend, while bottom line represents the minimum amount of bend. Therefore the higher reaching the wedge, the more aggressive the action should be.

Percussion 2

Implement position clef. The corresponding diagram and stave show where on an instrument an implement(s) should be placed at a given moment, along with the type of implement to be used (see Symbols). If there is more than one position shown, then the performer should drag the implement, when directed, from the starting position (always written as a ‘1’) for that particular gesture to the next position (‘2’), and then onto the next position (‘3’) if there is one, and so on. Note that the sequence of numbers resets for each gesture, so that the beginning position for the second gesture, for example, is written as ‘1,’ and also that if more than one implement is used in a given gesture, separate sequences of position numbers apply to each implement. See fig. 5 for more details.

Fig. 5: Example of an implement position clef with its corresponding diagram and stave (brush on prepared floor tom shown [this particular example does not occur in Performer 2’s part]).

Aggressiveness clef. The height of the solid black wedge on the corresponding stave depicts the aggressiveness (the firmness and speed, essentially the dynamics) of the action in question. The top line of the corresponding stave represents maximum aggressiveness, while the bottom line represents minimum aggressiveness. Therefore the higher reaching the wedge, the more aggressive the action should be.
PERFORMANCE NOTES (CONTINUED)

Symbols

Percussion 1

General Symbols

Resulting pitch area. One should should aim for a pitch in the region shown (in this case between D1–A1).

Dynamic not applicable. Here, the particular parameter this refers to (an angle or a position) remains static and helps to shape the overall sound rather than generating a sound on its own.

Bowing Symbols (above plastic sticks of Superball Mallet(s) 1 and/or 2 stave)

Bow the plastic sticks of the superball mallet(s) shown in the given direction (in this case bow the plastic sticks of both Superball Mallets 1 and 2 with an upbow).

Alternate between upbowing and downbowing at one’s discretion.

Symbols Relating to Implement Position

Brush 1.

Superball Mallet 1.

Left hand (appears to scale [i.e. bigger] in implement position diagram).

Sporadically ad. lib drag Brush 1 around this position (may also apply to other implements).

Percussion 2

General Symbols

Dynamic not applicable. Here, the particular parameter this refers to (an angle or a position) remains static and helps to shape the overall sound rather than generating a sound on its own.

Symbols Relating to Implement Position

Brush.

End of mallet stick (lower point of symbol represents precise location).

Right hand (appears to scale [i.e. bigger] in implement position diagram).
PERCUSSION 1

FLOOR TOM:
- Stir Brush 1 on top head. Drag Brush 1 across top head when instructed.
- Downward dagger grip. Lean quite heavily.
- The gradual opening of Brush 1 should create a low frictional sound (assist with L.H.).
- Keep Brush 1 half-open for the remainder of the performance.

AGGRESSIVENESS OF STIRRING
- With Superball Mallets 1 & 2 in hand, assist the opening of Brush 1.

POSITION OF BRUSH ON FLOOR TOM:
- Pinch grip. Lean quite heavily.

L.H.

PREPARED FLOOR TOM:
- Drag end of mallet stick across top head.
- Upside down mallet grip. Slowly and hesitantly.

AGGRESSIVENESS OF STIRRING

R.H.

PERCUSSION 2

PREPARED FLOOR TOM:
- Drag end of mallet stick across top head.
- Upside down mallet grip. Slowly and hesitantly.

POSITION OF MALLET STICK ON PREPARED FLOOR TOM
- The lower point of the symbol represents the precise position of the end of the mallet stick.
PERC. 1

R.H.

AGGRESSIVENESS OF STIRRING

POSITION OF BRUSH 1 ON FLOOR TOM

Against grain.

mf

15°

15°

15°

L.H.

FLOOR TOM:
Drag Superball Mallet 2 across top head.
Mallet grip. Slowly and hesitantly.

Silently put down Superball Mallet 2 and pick up Brush 2 (the strands of which should be pierced through the tea towel).

PERC. 2

R.H.

AGGRESSIVENESS OF STIRRING

POSITION OF BRUSH ON PREPARED FLOOR TOM

Against grain.

PERC. 1

L.H.

POSITION OF SUPERBALL MALLET 2 ON FLOOR TOM

With grain.

pp < mf >> pp

n/a

mf >> pp

AGGRESSIVENESS OF STIRRING

POSITION OF MALLET STICK ON PREPARED FLOOR TOM

Against grain.

PREPARED FLOOR TOM:
Drag end of mallet stick across top head.
Upside down mallet grip. Slowly and hesitantly.

Silently put down mallet.

L.H.
Massage and crush sea salt crystals on top head with palm and fingers. Slowly.

FLOOR TOM:
Stir Brush 2 through tea towel on top head. Drag Brush 2 through tea towel across top head when instructed. Downward dagger grip. Lean heavily.
While continuing to hold Brush 1, prepare to take Brush 2 from L.H.

**AGGRESSIVENESS OF STIRRING**

Seamlessly switch Brush 2 to R.H. without stopping gesture.

**PREPARED SNARE DRUM**
Snare switched off throughout.
- Busily scratch on top head through microfibre cloth with fingers. Sporadically scratch directly on top head and preparations.
- Silently put down brush.

**POSITION OF HAND ON PREPARED SNARE DRUM**

AGGRESSIVENESS OF SCRATCHING

**POSITION OF HAND ON PREPARED SNARE DRUM**

AGGRESSIVENESS OF MASSAGING AND CRUSHING

AGGRESSIVENESS OF MUSCLE TAP}

AGGRESSIVENESS OF MUSCLE TAP

AGGRESSIVENESS OF STIRRING

**POSITION OF HAND ON PREPARED SNARE DRUM**

AGGRESSIVENESS OF SCRATCHING

**POSITION OF HAND ON PREPARED SNARE DRUM**

AGGRESSIVENESS OF MASSAGING AND CRUSHING

AGGRESSIVENESS OF MUSCLE TAP

AGGRESSIVENESS OF STIRRING

**POSITION OF HAND ON PREPARED SNARE DRUM**
<table>
<thead>
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<td><strong>R.H.</strong></td>
</tr>
<tr>
<td><strong>AGGRESSIVENESS OF SCRATCHING</strong></td>
<td><strong>AGGRESSIVENESS OF SCRATCHING</strong></td>
</tr>
<tr>
<td><strong>POSITION OF HAND ON PREPARED SNARE DRUM</strong></td>
<td><strong>POSITION OF HAND ON PREPARED SNARE DRUM</strong></td>
</tr>
<tr>
<td><strong>PREPARED SNARE DRUM:</strong></td>
<td><strong>PREPARED SNARE DRUM:</strong></td>
</tr>
<tr>
<td>Busily scratch on top head through microfibre cloth with fingers. Sporadically scratch directly on top head and preparations.</td>
<td>Seemlessly allow L.H. to continue gesture and silently pick up brush.</td>
</tr>
<tr>
<td><strong>AGGRESSIVENESS OF STIRRING</strong></td>
<td><strong>AGGRESSIVENESS OF STIRRING</strong></td>
</tr>
<tr>
<td><strong>POSITION OF BRUSH ON PREPARED FLOOR TOM</strong></td>
<td><strong>POSITION OF BRUSH ON PREPARED FLOOR TOM</strong></td>
</tr>
<tr>
<td>Stir brush on sandpaper on top head. Downward dagger grip. Lean heavily.</td>
<td>Simultaneously allow L.H. to pick up brush and silently place it to start stirring on top head.</td>
</tr>
<tr>
<td><strong>AGGRESSIVENESS OF SCRATCHING</strong></td>
<td><strong>AGGRESSIVENESS OF SCRATCHING</strong></td>
</tr>
<tr>
<td><strong>POSITION OF HAND ON PREPARED SNARE DRUM</strong></td>
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</tr>
<tr>
<td><strong>PREPARED SNARE DRUM:</strong></td>
<td><strong>PREPARED SNARE DRUM:</strong></td>
</tr>
<tr>
<td>Align with sandpaper and scratch on top head through microfibre cloth with fingers.</td>
<td>Seemlessly allow L.H. to continue gesture and silently pick up brush.</td>
</tr>
</tbody>
</table>

*Note: Diagrams and additional text are not fully visible or legible in the image.*
PREPARED SNARE DRUM:
Stir Brushes 1 and 2 through microfibre cloth (held with L.H) on top head. Downward dagger grip. Lean heavily.

AGGRESSIVENESS OF SCRATCHING

POSITION OF BRUSHES 1 AND 2 ON FLOOR TOM

AGGRESSIVENESS OF STIRRING

POSITION OF HAND ON PREPARED SNARE DRUM
SNARE DRUM:
Stir Brushes 1 and 2 directly on top head (beside microfibre cloth).
Downward dagger grip. Lean heavily.

POSITION OF BRUSHES 1 AND 2 ON PREPARED SNARE DRUM
AGGRESSIVENESS OF STIRRING

POSITION OF HAND ON PREPARED SNARE DRUM
AGGRESSIVENESS OF SCRATCHING

PERC. 1

R.H.

L.H.

SNARE DRUM:
Stir Brushes 1 and 2 directly on top head (beside microfibre cloth).
Downward dagger grip. Lean heavily.

POSITION OF BRUSH ON PREPARED FLOOR TOM
AGGRESSIVENESS OF STIRRING

POSITION OF HAND ON PREPARED SNARE DRUM
AGGRESSIVENESS OF SCRATCHING

PERC. 2

R.H.

L.H.
Silently put down Brushes 1 and 2 and pick up Superball Mallet 1.

Silently pick up Superball Mallet 2.

Silently put down brush.

Silently pick up mallet.
FLOOR TOM: Beat stick of Superball Mallet 2 with Superball Mallet 1.
Mallet grip.

FLOOR TOM: Hover Superball Mallet 1 above top head.
Mallet grip. Lightly.

FLOOR TOM: Drag Superball Mallet 1 across top head.
Mallet grip. Slowly and hesitant.

FLOOR TOM: Drag Superball Mallet 1 across top head.
Mallet grip. Slowly and hesitantly.

POSITION OF SUPERBALL MALLET 1 ON FLOOR TOM

POSITION OF SUPERBALL MALLET 1 ON FLOOR TOM

POSITION OF SUPERBALL MALLET 2 ON FLOOR TOM

POSITION OF SUPERBALL MALLET 3 ON FLOOR TOM

With grain.

Against grain.
**FLOOR TOM:**
Beat stick of Superball Mallet 2 with Superball Mallet 1.
Mallet grip.

---

**PREPARED FLOOR TOM:**
Drag end of mallet stick across top head.
Upside down mallet grip. Slowly and hesitantly.

---

**CLAVES:**
Beat claves against one another.
(In unison with Perf. 1).

---

**PERC. 1**

<table>
<thead>
<tr>
<th>R.H.</th>
<th>L.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>♬ ♩</td>
<td>♩ ♩</td>
</tr>
</tbody>
</table>

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**PERC. 2**

<table>
<thead>
<tr>
<th>B.H.</th>
<th>L.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td>♩ ♩</td>
<td>♩ ♩</td>
</tr>
</tbody>
</table>

---

**CLAVES**
Beat claves against one another.
(In unison with Perf. 1).
FLOOR TOM:
With bow in R.H. and Superball Mallets 1 and 2 in L.H., alternate between the following actions when instructed:
- Bow plastic sticks of Superball Mallet(s) 1 and/or 2 on top head.
- Drag Superball Mallets 1 and 2 across top head.
- Loudly move grip up plastic sticks of Superball Mallets 1 and 2 on top head.

Double mallet grip. Slowly.

With bow in R.H. and Superball Mallets 1 and 2 in L.H., alternate between the following actions when instructed:
- Bow plastic sticks of Superball Mallet(s) 1 and/or 2 on top head.
- Drag Superball Mallets 1 and 2 across top head.
- Loudly move grip up plastic sticks of Superball Mallets 1 and 2 on top head.

Double mallet grip. Slowly.
With bow in hand, assist L.H. with movement of grip back up plastic sticks of Superball mallets 1 and 2.

Very slowly.

Tight double mallet grip. Slowly and unevenly.

Deep, pitchless rumble.

Move grip up plastic sticks of Superball Mallets 1 and 2.

With grain.

With grain.
Double mallet grip. Quite slowly.

Double mallet grip (don't allow Superball Mallet 1 to touch top head). Very slowly.

Release from top head.

With grain.

Bend applied to plastic sticks of Superball Mallets 1 and 2

Position of Superball Mallets 1 and 2 on floor tom

Q
Asymmetric double mallet grip.
Slowly.

With grain.

(Bowing Superball Mallet 1).
(Bowing Superball Mallet 2).
(Dragging Superball Mallet 1).
(Bowing Superball Mallet 2).

PERC. 1
B.H.

POSITION OF SUPERBALL MALLETS 1 AND 2 ON FLOOR TOM

BEND APPLIED TO PLASTIC STICKS OF SUPERBALL MALLETS 1 AND 2

PERC. 2
Bend applied to plastic sticks of Superball mallets 1 and 2.

Position of Superball mallets 1 and 2 on floor tom.

45°
SHORTHAND SCORE
(FOR LIVE PERFORMANCE)
## PERFORMANCE NOTES

### Hands
- **R.H.** Perform the specific gesture(s) using one’s right hand.
- **B.H.** Perform the specific gesture(s) using both hands.
- **L.H.** Perform the specific gesture(s) using one’s left hand.

### Symbols
- Begin the gesture in question from the notehead and continue until the end of the thick horizontal line.
- Begin the gesture in question from the notehead and continue until the end of the thick horizontal line.

Refer to the full score for more details.
SLEEP SPINDLES

SHORTHAND SCORE

Paul McGuire

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PARTS
(FOR LIVE PERFORMANCE)
PERFORMANCE NOTES

Instrumentation

Percussion 1 (Prepared Floor Tom)
Percussion 2 (Prepared Acoustic Guitar)
Percussion 3 (Prepared Acoustic Guitar)
Percussion 4 (Prepared Floor Tom)

Duration: ca. 11 minutes

This piece does not require a conductor. Instead, the performers should all follow the audio guide track played through their earphones, which includes a metronome beating at a tempo of $\nu = 140$ and recorded spoken cues (see General Notation for more details).

The performers should read from their individual parts (see General Notation). The schematic is only intended as a brief summary of the events that take place during the piece.

The instruments should all be amplified (see Technical Setup for more details).

Stage Setup (excluding lighting)

Percussion 1 Setup
The performer should be seated and should wear a pair of earphones (plugged in to the audio splitter) throughout the performance.

The performer is required to play a 14" x 14" (ca. 36 cm x 36 cm) floor tom with a coated top head. This floor tom should match that used for the Percussion 4 part in dimensions, materials and tuning. The floor tom should be prepared with a tea towel that should be draped flat over the top head, completely covering it. From the beginning of the piece, a grenadine clave should be placed on the centre of the tea towel-covered top head, lying horizontally from the performer’s perspective (see fig. 1). The clave is removed later in the performance.

The performer is required to have 1 x pair of earphones (as mentioned above), 2 x soft yarn mallet and 1 x wooden drum stick.

Percussion 2 Setup
The performer should be seated and should wear a pair of earphones (plugged in to the audio splitter) throughout the performance. The guitar should be laid string side up across their lap, whereby string IV is the string located closest to them.

The performer is required to play an acoustic steel-stringed guitar. The guitar should have a traditional wooden back and sides (as opposed to a composite synthetic bowl used on some guitars) and should match that used for the Percussion 3 part in terms of dimensions, materials and tuning (both instruments should be tuned to the standard guitar tuning). Although no definite pitches are used in this piece, the tuning of the strings affects the tone of the guitar during Section A and Section B. The strings should be prepared with a ca. 8 cm x 2 cm cylinder of adhesive-tack (e.g. Blu-Tack), firmly placed across the strings, muting them precisely 6.5 cm from the bridge (see fig. 3). Extra care should be taken to ensure string I is particularly thickly wrapped in the adhesive-tack mute in order for the string not to break free from it during Section 2.

(Continued on the next page).
Percussion 2 Setup (continued)

The performer is required to have 1 x pair of earphones (as mentioned above) and 1 x plastic plectrum.

**Percussion 3 Setup**

The performer should be seated and should wear a pair of earphones (plugged into the audio splitter) throughout the performance. The guitar should be laid string side up across their lap, whereby string IV is the string located closest to them.

The performer is required to play an acoustic steel-stringed guitar. The guitar should have a traditional wooden back and sides (as opposed to a composite synthetic bowl used on some guitars) and should match that used for the Percussion 2 part in terms of dimensions, materials and tuning (both instruments should be tuned to the standard guitar tuning). Although no definite pitches are used in this piece, the tuning of the strings affects the tone of the guitar during Section A and Section B. The strings should be prepared with a ca. 8 cm x 2 cm cylinder of adhesive-tack (e.g. Blu-Tack), firmly placed across the strings, muting them precisely 6.5 cm from the bridge (see fig. 3). Extra care should be taken to ensure string I is particularly thickly wrapped in the adhesive-tack mute in order for the string not to break free from it during Section 2.

The performer is required to have 1 x pair of earphones (as mentioned above) and 2 x plastic plectrums.

**Percussion 4 Setup**

The performer should be seated and should wear a pair of earphones (plugged into the audio splitter) throughout the performance.

The performer of this part is required to play a 14” x 14” (ca. 36 cm x 36 cm) floor tom with a coated top head. This floor tom should match that used for the Percussion 1 part in dimensions, materials and tuning. The floor tom should be prepared with a tea towel that should be draped flat over the top head. The tea towel should be folded back, away from the performer, so that ca. 2/3 of the top head is covered, with the uncovered part located just in front of the performer (see fig. 4). The tea towel is unfolded later in the performance.

The performer is required to have 1 x pair of earphones (as mentioned above), 1 x soft yarn mallet and 1 x wooden drum stick.
Technical Setup

Audio Guide Track

The performers’ audio guide track should be played on an audio playback device located offstage, and should be triggered by an engineer to begin the piece. The playback device should be output to an audio channel splitter (which may be located onstage) with at least four output channels. Each of the performers’ earphones should be connected to one of the channel splitter’s outputs. The performers will likely need to use cable extensions so that their earphone cables can reach the channel splitter with plenty of slack. The audio guide track should be loud enough that the performers can comfortably hear both the audio track and the sounds of their actions. The playback device should not be output to any loudspeakers. During the quiet sections (the opening sixteen bars, Section G and the closing sixteen bars), the engineer should not turn down the performers’ guide audio track, as it is intended that the sound of the beating metronome be faintly audible to the audience through the performers’ earphones.

Amplification

Each instrument should be close miked (at a distance of ca. 30 cm) from above, preferably in stereo and with a pair of condenser microphones. The engineer should ensure that the volume of all instruments is equally balanced, which may mean turning up the gain on the Percussion 2 and Percussion 3 channels, as the floor toms will likely project more loudly than the guitars. The overall signal should output in stereo to a pair of large loudspeakers, located either side of the performance area. Percussion 1 and Percussion 2 should both be panned to the 10 o’clock position in the stereo field, while Percussion 3 and Percussion 4 should both be panned to the 2 o’clock position. This should ensure a relative stereo balance at all times. The overall volume should be quite loud, with a small amount audible hiss, as if to recreate the experience of hearing music in a nightclub.

Performance Space

The performance should take place indoors, in a sparse, darkened space. The audience may be standing or seated. If there are windows in the space, these should be covered so that no natural light or street lighting enters. The performers should use gooseneck lamps to light their scores and the only other light source in the space, aside from any necessary emergency exit or equipment lighting, should be directed towards the performers. This lighting should be dim, static, and tinted either red or blue. If available, strobe lighting may also be used in time with the music (i.e. strobing in semiquavers at a tempo of \( \frac{q}{69} \), however if used, the audience should be warned about the strobe lighting before the performance. The overall atmosphere of the performance should feel similar to that of a rave taking place in the early hours of the morning.

General Notation

This piece is divided into eight sections (Section A–Section H), each of which consists of a repeated one bar loop in one or two parts, played by two or three performers. Rhythmically, all loops are comprised of relentless semiquavers played at a tempo of \( \frac{q}{69} \). As the material is repetitive, rather than having identical bars written in full over and over again across multiple pages, only the first bar of each section is notated. This notation, which consists of a description of the gesture, a labelled diagram, notated rhythmic material and other information, is contained in a box (see fig. 5). In essence, each performer’s part functions as a cue sheet. Because of this approach to notation, there is no full score.

In order to play with as much rhythmic precision as possible, the performers follow an audio guide track which is played through their earphones. This audio guide track contains a metronome beating at the tempo of the piece, along with recorded spoken cues. Two bars before each section begins, the recorded voice announces the name of that section over the metronome, and on the following bar, that section is counted in. For example on bar 15, the recorded voice announces “Section A in...” and on bar 16 the voice gives a one bar count in (i.e. “one two three four”) to bar 17, where Section A begins. The engineer triggers the audio guide track off stage at the beginning of the piece.
PERCUSSION QUARTET

PART FOR PERCUSSION 1 (PREPARED FLOOR TOM)

Paul McGuire

\[ \text{\textbf{\texttt{\textbackslash \textasciitilde}}} = 140 \]

**PRECISE AND MECHANICAL, AS IF PLAYED BY A DRUM MACHINE.**

**THE PERFORMERS SHOULD BE AS EXPRESSIONLESS AND AS MOTIONLESS AS POSSIBLE THROUGHOUT.**

**BEGINNING**

An engineer off stage should begin the piece by triggering the performers' audio guide track.

The piece starts with sixteen bars where all performers are silent, while the metronome plays on the audio guide track through their earphones. Here, one should sit still with one's hands resting on the top head of the floor tom. On bar 15, a recorded voice on the audio guide track announces “Section A in...” over the metronome, and on bar 16 the voice gives a one bar count in to bar 17, where Section A begins. All subsequent sections are cued in this way.

**SECTION A**

Rest while Percussion 2 and Percussion 3 play.

While holding a soft yarn mallet in each hand, sit still and silently with one's hands resting on the top head of the floor tom.

\[ \text{b. 17} \quad \times 48 \]

\[ \text{\textbackslash \textasciitilde} \quad \text{\textbackslash \textasciitilde} \]

\[ \text{\textbackslash \textasciitilde} \quad \text{\textbackslash \textasciitilde} \]

**SECTION B**

Rest while Percussion 2 and Percussion 3 play.

While holding a soft yarn mallet in each hand, sit still and silently with one's hands resting on the top head of the floor tom.

\[ \text{b. 65} \quad \times 48 \]

\[ \text{\textbackslash \textasciitilde} \quad \text{\textbackslash \textasciitilde} \]

\[ \text{\textbackslash \textasciitilde} \quad \text{\textbackslash \textasciitilde} \]

**SECTION C**

Rest while Percussion 2 and Percussion 3 play.

While holding a soft yarn mallet in each hand, sit still and silently with one's hands resting on the top head of the floor tom.

\[ \text{b. 113} \quad \times 23 \]

\[ \text{\textbackslash \textasciitilde} \quad \text{\textbackslash \textasciitilde} \]

\[ \text{\textbackslash \textasciitilde} \quad \text{\textbackslash \textasciitilde} \]

**SECTION D**

Rest while Percussion 2, Percussion 4 and, initially, Percussion 3 play.

While holding a soft yarn mallet in each hand, sit still and silently with one's hands resting on the top head of the floor tom.

\[ \text{b. 136} \quad \times 56 \]

\[ \text{\textbackslash \textasciitilde} \quad \text{\textbackslash \textasciitilde} \]

\[ \text{\textbackslash \textasciitilde} \quad \text{\textbackslash \textasciitilde} \]

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PART FOR PERCUSSION 1 (PREPARED FLOOR TOM)

SECTION E

With Percussion 3.

Beat the curved surface of the clave, ca. 2 cm away from both ends, on the tea-towel covered top head of the floor tom with the soft yarn mallets. Avoid letting the clave bounce on the top head as this will result in an inconsistent sound.

SECTION F

Rest while Percussion 2 and Percussion 4 play.

While holding a soft yarn mallet in each hand, sit still and silently with one’s hands resting on the top head of the floor tom.

After forty bars, silently put down the soft yarn mallet in one’s right hand and replace it with the drum stick, while continuing to hold the other yarn mallet in one’s left hand. Rest one’s hands on the top head of the floor tom, and sit still and silently once more.

SECTION G

All performers rest.

While holding the drum stick in one’s right hand and the soft yarn mallet in one’s left hand, sit still and silently with one’s hands resting on the top head of the floor tom.

SECTION H

With Percussion 4.

Side stick the tea towel-covered rim of the floor tom using the drum stick held in one’s right hand. On alternate beats, beat the half-way point of the drum stick with the soft yarn mallet held in one’s left hand. Release each stick immediately after each impact so that the drum stick does not make contact with the tea towel covered-rim of the floor tom when it is hit with the yarn mallet. Ensure the base of the drum stick firmly touches the centre of the floor tom’s tea towel-covered top head throughout the section, so that the vibrations from the yarn mallet beating the drum stick resonate through the floor tom.

ENDING

On bar 374 (the penultimate bar of Section H), a recorded voice on the audio guide track announces “silence in...” over the metronome, and on bar 375 (the final bar of Section H), the voice gives a one bar count in to bar 376, where Percussion 1 and Percussion 4 suddenly stop playing. Here, one should sit still and silently with one’s hands resting on the top head of the floor tom while only the metronome plays for a final sixteen bars. When the metronome stops, the piece has finished and the performers may relax.
PERCUSSION QUARTET

PART FOR PERCUSSION 2 (PREPARED ACOUSTIC GUITAR)

Paul McGuire

\[ \text{\textbf{\textit{BEGINNING}}} \]

An engineer off stage should begin the piece by triggering the performers’ audio guide track.

The piece starts with sixteen bars where all performers are silent, while the metronome plays on the audio guide track through their earphones. Here, one should all sit still with one’s hands resting on the guitar. On bar 15, a recorded voice on the audio guide track announces “Section A in...” over the metronome, and on bar 16 the voice gives a one bar count in to bar 17, where Section A begins. All subsequent sections are cued in this way.

\[ \text{\textbf{\textit{SECTION A}}} \]

With Percussion 3.

Tap on the centre of the adhesive-tack mute with the pads of one’s left and right forefingers. Releasing the pad of one’s forefinger from the adhesive-tack mute produces a sound. Therefore, one should precisely synchronise the releasing of the pad of one forefinger with the tapping of the other.

\[ \text{\textbf{\textit{SECTION B}}} \]

With Percussion 3.

Tap on string I, at the half-way point between the adhesive-tack mute and the bridge with the fleshy tips of one’s left and right forefingers. Releasing the pad of one’s forefinger from string I produces a sound. Therefore, one should precisely synchronise the releasing of the pad of one forefinger with the tapping of the other.

\[ \text{\textbf{\textit{SECTION C}}} \]

With Percussion 3.

Tap on the saddle, ca. 1 cm above the end of string I with the fleshy tips of one’s left and right forefingers. Releasing the tip of one’s forefinger from the upper saddle may produce a slight sound. Therefore, one should precisely synchronise the releasing of the tip of one forefinger with the tapping of the other.

\[ \text{\textbf{\textit{SECTION D}}} \]

With Percussion 4 and, initially, Percussion 3.

Tap on the belly of guitar, ca. 3 cm to the lower-right of the saddle with the pad of one’s right forefinger. Releasing the pad of one’s right forefinger from the belly will both produce a sound. Therefore, one should precisely synchronise the releasing of the pad of one forefinger with the tapping of the other.

\[ \text{\textbf{\textit{PART FOR PERCUSSION 2 (PREPARED ACOUSTIC GUITAR)}}} \]

\[ \text{\textbf{\textit{q}} = 140} \]

\[ \text{\textbf{\textit{PRECISE AND MECHANICAL, AS IF PLAYED BY A DRUM MACHINE. THE PERFORMERS SHOULD BE AS EXPRESSIONLESS AND AS MOTIONLESS AS POSSIBLE THROUGHOUT.}}} \]
SECTION E

Rest while Percussion 1 and Percussion 3 play.

Sit still and silently with one's hands resting on the guitar.

After forty bars, silently pick up a pair of plectrums, holding one in each hand. Rest one's hands on the guitar, and sit still and silently once more.

Hold each plectrum with three fingers and a thumb, with the base facing downwards.

SECTION F

With Percussion 4.

Tap on the saddle, ca. 1 cm above the end of string I with the base of the plectrums. Hold the plectrums as before. This ensures each will be firm upon impact with the upper saddle, and will therefore produce a sound with a strong bass presence. Releasing a plectrum from the upper saddle should not produce a noticeable sound, and so there is no need to precisely synchronize the release of one plectrum with the tapping of the other.

SECTION G

All performers rest.

Sit still and silently with one's hands resting on the guitar.

SECTION H

Rest while Percussion 1 and Percussion 4 play.

Sit still and silently with one's hands resting on the guitar.

ENDING

On bar 374 (the penultimate bar of Section H), a recorded voice on the audio guide track announces “silence in...” over the metronome, and on bar 375 (the final bar of Section H), the voice gives a one bar count in to bar 376, where Percussion 1 and Percussion 4 suddenly stop playing. Here, one should sit still and silently with one's hands resting on the guitar while only the metronome plays for a final sixteen bars. When the metronome stops, the piece has finished and the performers may relax.
PERCUSSION QUARTET

PART FOR PERCUSSION 3 (PREPARED ACOUSTIC GUITAR)

Paul McGuire

\[ \text{\textbf{BEGINNING}} \]

An engineer off stage should begin the piece by triggering the performers’ in-ear audio track.

The piece starts with sixteen bars where all performers are silent, while the metronome plays on the audio guide track through their earphones. Here, one should sit still with one’s hands resting on the guitar. On bar 15, a recorded voice on the audio guide track announces “Section A in...” over the metronome, and on bar 16 the voice gives a one bar count in to bar 17, where Section A begins. All subsequent sections are cued in this way.

\[ \text{\textbf{SECTION A}} \]

\textbf{With Percussion 2.}

Tap on the centre of the adhesive-tack mute with the pads of one’s left and right forefingers. Releasing the pad of one’s forefinger from the adhesive-tack mute produces a sound. Therefore, one should precisely synchronise the releasing of the pad of one forefinger with the tapping of the other.

\[ \text{\textbf{SECTION B}} \]

\textbf{With Percussion 2.}

Tap on string I, at the half-way point between the adhesive-tack mute and the bridge with the fleshy tips of one’s left and right forefingers. Releasing the pad of one’s forefinger from string I produces a sound. Therefore, one should precisely synchronise the releasing of the pad of one forefinger with the tapping of the other.

\[ \text{\textbf{SECTION C}} \]

\textbf{With Percussion 2.}

Tap on the saddle, ca. 1 cm above the end of string I with the fleshy tips of one’s left and right forefingers. Releasing the tip of one’s forefinger from the upper saddle may produce a slight sound. Therefore, one should precisely synchronise the releasing of the tip of one forefinger with the tapping of the other.
PART FOR PERCUSSION 3 (PREPARED ACOUSTIC GUITAR)

SECTION D

With Percussion 2 and Percussion 4.

Tap on the belly of guitar, ca. 3 cm to the lower-right of the saddle with the pad of one’s right forefinger, and on the saddle itself, ca. 1 cm above the end of string I with the pad of one’s left forefinger. Releasing the pad of one’s right forefinger from the belly, and the pad of one’s left forefinger from the upper saddle will both produce a sound. Therefore, one should precisely synchronise the releasing of the pad of one forefinger with the tapping of the other.

After twenty bars, gradually decrescendo from \( f \) to \( ppp \) over the following twenty bars.

Then stop, pick up a plectrum with one’s right hand and sit still and silently with one’s hands resting on the guitar. Hold the plectrum the standard way, with the tip facing downwards.

SECTION E

With Percussion 1.

While muting string I with the fleshy tip of one’s left forefinger, ca. 1 cm behind the adhesive-tack mute, pluck string I, ca. 2 cm in front of the bridge using the plectrum held in one’s right hand.

SECTION F

Rest while Percussion 2 and Percussion 4 play.

Sit still and silently with one’s hands resting on the guitar.

SECTION G

All performers rest.

Sit still and silently with one’s hands resting on the guitar.

SECTION H

Rest while Percussion 1 and Percussion 4 play.

Sit still and silently with one’s hands resting on the guitar.

ENDING

On bar 374 (the penultimate bar of Section H), a recorded voice on the audio guide track announces “silence in...” over the metronome, and on bar 375 (the final bar of Section H), the voice gives a one bar count in to bar 376, where Percussion 1 and Percussion 4 suddenly stop playing. Here, one should sit still and silently with one’s hands resting on the guitar while only the metronome plays for a final sixteen bars. When the metronome stops, the piece has finished and the performers may relax.
PERCUSSION QUARTET

PART FOR PERCUSSION 4 (PREPARED FLOOR TOM)

Paul McGuire

\[ \text{\LARGE \textit{PRECEISE AND MECHANICAL, AS IF PLAYED BY A DRUM MACHINE.}} \]
\[ \text{\LARGE \textit{THE PERFORMERS SHOULD BE AS EXPRESSIONLESS AND AS MOTIONLESS AS POSSIBLE THROUGHOUT.}} \]

\textbf{BEGINNING}

An engineer off stage should begin the piece by triggering the performers’ audio guide track.

The piece starts with sixteen bars where all performers are silent, while the metronome plays on the audio guide track through their earphones. Here, one should sit still with one’s hands resting on the top head of the floor tom. On bar 15, a recorded voice on the audio guide track announces “Section A in...” over the metronome, and on bar 16 the voice gives a one bar count in to bar 17, where Section A begins. All subsequent sections are cued in this way.

\textbf{SECTION A}

Rest while Percussion 2 and Percussion 3 play.

Sit still and silently with one’s hands resting on the top head of the floor tom.

\[ b. \ 17 \ x \ 48 \]

\[ \frac{4}{4} \]

\[ \text{R.H. and L.H.} \]

\[ \text{RELEASE} \quad \text{TAP} \]

\[ \text{\textit{q}} \ = \ 140 \]

\[ \text{PRECISE AND MECHANICAL, AS IF PLAYED BY A DRUM MACHINE.}} \]
\[ \text{\LARGE \textit{THE PERFORMERS SHOULD BE AS EXPRESSIONLESS AND AS MOTIONLESS AS POSSIBLE THROUGHOUT.}} \]

\textbf{SECTION B}

Rest while Percussion 2 and Percussion 3 play.

Sit still and silently with one’s hands resting on the top head of the floor tom.

\[ b. \ 65 \ x \ 48 \]

\[ \frac{4}{4} \]

\[ \text{R.H. and L.H.} \]

\[ \text{RELEASE} \quad \text{TAP} \]

\textbf{SECTION C}

Rest while Percussion 2 and Percussion 3 play.

Sit still and silently with one’s hands resting on the top head of the floor tom.

\[ b. \ 113 \ x \ 23 \]

\[ \frac{4}{4} \]

\[ \text{R.H. and L.H.} \]

\[ \text{RELEASE} \quad \text{TAP} \]

\textbf{SECTION D}

With Percussion 2 and, initially, Percussion 3.

Rimshot with one’s forefingers on the uncovered part of the floor tom’s top head, ca. 2 cm from the edge so that, with each rimshot, the pad of one’s forefinger laps on the top head while the half-way point of one’s forefinger simultaneously laps the rim. Releasing the pad of one’s forefinger from the top head will produce a sound. Therefore, one should precisely synchronise the release of the pad of one forefinger with the tapping of the other.

\[ b. \ 136 \ x \ 56 \]

\[ \text{2 cm away from edge of non-covered part of top head (R.H. and L.H.)} \]

\[ \text{R.H.} \]

\[ \text{RELEASE} \quad \text{TAP} \]

\[ \text{L.H.} \]

\[ \text{RELEASE} \quad \text{TAP} \]
**SECTION E**

Rest while Percussion 1 and Percussion 3 play.

Sit still and silently with one’s hands resting on the top head of the floor tom.

After forty bars, silently unfold the tea towel so it covers the entirety of the floor tom’s top head. Rest one’s hands on the top head, and sit still and silently once more.

```
   |   |   |
  b. 192  x 56
```

**SECTION F**

With Percussion 2.

Tap on the centre of the floor tom’s tea towel-covered top head with the fleshy tips of one’s forefingers.

Releasing the tip of one’s forefinger from the upper saddle may produce a slight sound. Therefore, one should precisely synchronise the releasing of the tip of one forefinger with the tapping of the other.

```
   |   |   |
  b. 248  x 64
```

**SECTION G**

All performers rest.

Silently pick up the drum stick with one’s right hand and the soft yarn mallet with one’s left hand. Then sit still and silently with one’s hands resting on the top head of the floor tom.

```
   |   |   |
  b. 312  x 16
```

**SECTION H**

With Percussion 1.

Side stick the tea towel-covered rim of the floor tom using the drum stick held in one’s right hand. On alternate beats, beat the half-way point of the drum stick with the soft yarn mallet held in one’s left hand.

Release each stick immediately after each impact so that the drum stick does not make contact with the tea towel covered-rim of the floor tom when it is hit with the yarn mallet. Ensure the base of the drum stick firmly touches the centre of the floor tom’s tea towel covered top head throughout the section, so that the vibrations from the yarn mallet beating the drum stick resonate through the floor tom.

```
   |   |   |
  b. 329  x 48
```

**ENDING**

On bar 374 (the penultimate bar of Section H), a recorded voice on the audio guide track announces “silence in...” over the metronome, and on bar 375 (the final bar of Section H), the voice gives a one bar count in to bar 376, where Percussion 1 and Percussion 4 suddenly stop playing. Here, one should sit still and silently with one’s hands resting on the top head of the floor tom while only the metronome plays for a final sixteen bars. When the metronome stops, the piece has finished and the performers may relax.
NOTES ON SCHEMATIC

This schematic should not be read as a score, but rather a brief summary of the audible events which take place during the piece.

Notation (schematic only)

<table>
<thead>
<tr>
<th>Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Play *</td>
</tr>
</tbody>
</table>

*Every played bar has the following overall rhythm:

\[
\begin{array}{cccccccc}
\text{Rest} & \text{Rest} & \text{Rest} & \text{Rest} & \text{Rest} & \text{Rest} & \text{Rest} & \text{Rest} \\
\end{array}
\]

Refer to the parts for more details.
Percussion Quartet

Timpani

Tap on the centre of the adhesive tack mute with the pads of one’s left and right forefingers.

Rimshot with one’s forefingers on the uncovered part of the floor tom’s top head, ca. 2 cm from the edge so that, with each rimshot, the pad of one’s forefinger taps on the top head while the half-way point of one’s forefinger simultaneously taps the rim.

While muting string I with the fleshy tip of one’s left forefinger, ca. 1 cm behind the adhesive-tack mute, pluck string I, ca. 2 cm in front of the bridge using the plectrum held in one’s right hand.

Beat the curved surface of the clave, ca. 2 cm away from both ends, on the tea-towel covered top head of the floor tom with the soft yarn mallet.

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Paul McGuire

GRAVEL

(2015)
PERFORMANCE NOTES

Instrumentation

For 16 piece acoustic guitar ensemble. This piece may also be performed by a 12 piece, 20 piece or 24 piece acoustic guitar ensemble.

The performers are sorted into four groups. Each performer within a given group plays an identical part to the other performers within that group. See below:

<table>
<thead>
<tr>
<th>16 piece ensemble version</th>
<th>12 piece ensemble version</th>
<th>20 piece ensemble version</th>
<th>24 piece ensemble version</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group A:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acoustic Guitar 1</td>
<td>Acoustic Guitar 1</td>
<td>Acoustic Guitar 1</td>
<td>Acoustic Guitar 1</td>
</tr>
<tr>
<td>Acoustic Guitar 2</td>
<td>Acoustic Guitar 2</td>
<td>Acoustic Guitar 2</td>
<td>Acoustic Guitar 2</td>
</tr>
<tr>
<td>Acoustic Guitar 3</td>
<td>Acoustic Guitar 3</td>
<td>Acoustic Guitar 3</td>
<td>Acoustic Guitar 3</td>
</tr>
<tr>
<td>Acoustic Guitar 4</td>
<td></td>
<td>Acoustic Guitar 4</td>
<td>Acoustic Guitar 4</td>
</tr>
<tr>
<td>Acoustic Guitar 5</td>
<td></td>
<td>Acoustic Guitar 5</td>
<td>Acoustic Guitar 5</td>
</tr>
<tr>
<td>Acoustic Guitar 6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Group B:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acoustic Guitar 5</td>
<td>Acoustic Guitar 4</td>
<td>Acoustic Guitar 6</td>
<td>Acoustic Guitar 7</td>
</tr>
<tr>
<td>Acoustic Guitar 6</td>
<td>Acoustic Guitar 5</td>
<td>Acoustic Guitar 7</td>
<td>Acoustic Guitar 8</td>
</tr>
<tr>
<td>Acoustic Guitar 7</td>
<td>Acoustic Guitar 6</td>
<td>Acoustic Guitar 8</td>
<td>Acoustic Guitar 9</td>
</tr>
<tr>
<td>Acoustic Guitar 8</td>
<td></td>
<td>Acoustic Guitar 9</td>
<td>Acoustic Guitar 10</td>
</tr>
<tr>
<td><strong>Group C:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acoustic Guitar 9</td>
<td>Acoustic Guitar 7</td>
<td>Acoustic Guitar 11</td>
<td>Acoustic Guitar 13</td>
</tr>
<tr>
<td>Acoustic Guitar 10</td>
<td>Acoustic Guitar 8</td>
<td>Acoustic Guitar 12</td>
<td>Acoustic Guitar 14</td>
</tr>
<tr>
<td>Acoustic Guitar 11</td>
<td>Acoustic Guitar 9</td>
<td>Acoustic Guitar 13</td>
<td>Acoustic Guitar 15</td>
</tr>
<tr>
<td>Acoustic Guitar 12</td>
<td></td>
<td>Acoustic Guitar 14</td>
<td>Acoustic Guitar 16</td>
</tr>
<tr>
<td><strong>Group D:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acoustic Guitar 13</td>
<td>Acoustic Guitar 10</td>
<td>Acoustic Guitar 16</td>
<td>Acoustic Guitar 19</td>
</tr>
<tr>
<td>Acoustic Guitar 14</td>
<td>Acoustic Guitar 11</td>
<td>Acoustic Guitar 17</td>
<td>Acoustic Guitar 20</td>
</tr>
<tr>
<td>Acoustic Guitar 15</td>
<td>Acoustic Guitar 12</td>
<td>Acoustic Guitar 18</td>
<td>Acoustic Guitar 21</td>
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<tr>
<td>Acoustic Guitar 16</td>
<td></td>
<td>Acoustic Guitar 19</td>
<td>Acoustic Guitar 22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acoustic Guitar 20</td>
<td>Acoustic Guitar 23</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acoustic Guitar 24</td>
</tr>
</tbody>
</table>

To be conducted.

Duration: ca. 7 minutes

All performers should be seated throughout. At all times, each performer within a given group should ensure that the tone they produce matches the tone of the other instruments within that group as closely as possible, so that it almost feels as though the collective sound produced by that group is coming from a single instrument. For the best possible projection of sound, each performer should ensure the particular area of the guitar they are focusing on at a given time directly faces the audience.

Stage Setup (16-piece ensemble version)

Setup of Guitars

Each guitar should be an acoustic steel-stringed instrument. Although the strings of the guitars are not played during the piece, the body shape and therefore tonal quality (when played like a finger drum, as in this piece) of an acoustic steel-stringed guitar is quite different from that of a classical guitar. Each guitar should have a traditional wooden back and sides (as opposed to a composite synthetic bowl used on some guitars). Ideally each guitar should have an orchestra style body as opposed to a larger dreadnought style body, as this also affects the tonal quality.

The strings of each guitar should be muted ca. 10–20 cm from the bridge with a cylinder of adhesive-tack (e.g. Blu-Tack).

**Group A**

The performers in this group should each have a pillowcase and a ca. 15 cm x 15 cm sheet of coarse sandpaper.

(Continued on the next page).
PERFORMANCE NOTES (CONTINUED)

Setup of Guitars (continued)

Group B
The performers in this group should each have a pillowcase and a ca. 15 cm x 15 cm sheet of coarse sandpaper.

If any of the performers in this group are unhappy to use their fingernails directly on the sheet the sandpaper for the **Busily scurry on sandpaper with fingernails** technique (at rehearsal mark $\text{ BM.I }$), they should also wear a pair of fitted canvas gardening gloves for the duration of this technique, each of which should be prepared at every fingertip with a line of dried in superglue where the edge their fingernail would be in relation to their fingertip, as a substitute for their fingernail (see fig. 1). These gloves should not be worn for any other technique.

Group C
The performers in this group should each have a metal guitar slide and a ca. 15 cm x 15 cm sheet of coarse sandpaper.

Group D
The performers in this group should each have a pillowcase and a ca. 15 cm x 15 cm sheet of coarse sandpaper.

If any of the performers in this group are unhappy to use their fingernails directly on the sheet the sandpaper for the **Busily scurry on sandpaper with fingernails** technique (at rehearsal mark $\text{ BM.I }$), they should also wear a pair of fitted canvas gardening gloves for the duration of this technique, each of which should be prepared at every fingertip with a line of dried in superglue where the edge their fingernail would be in relation to their fingertip, as a substitute for their fingernail (see fig. 1). These gloves should not be worn for any other technique.

General Notation

This piece consists of a series of slowly overlapping textures. Rather than notating these long note values as a stream of tied semibreves and minims, the note value (with a tremolo symbol above it) is indicated in the first bar of each texture, and tied (with a dashed tie, as it is a broken sound rather than a constant one) to a thick, arrow-headed line that reaches as far as the penultimate bar for that particular texture. This line is then tied to the final note value. Showing less ties and less tremolo symbols, this approach presents all of the required information in a clearer manner than the alternative. The text above the first note indicates the technique to be used for that particular texture (in **bold italic text**), the position on the guitar body where that technique should be performed (in **bold text**), and whether or not the performer should dampen the resonance of the guitar body with their arms and torso or leave it as open as possible (in light text). See fig. 2 for a simplified example.

Techniques (in order of appearance)

**Busily tap with finger pads.**
With the pads of one’s fingers and thumb, tap on the given surface of the guitar as busily and as rapidly as possible. Seamlessly alternate between one’s left and right hands every 10–15 secs (allowing for some overlap between one’s hands) in order to avoid fatigue and cramping.

**Busily scratch on sandpaper/pillowcase with fingernails.**
With the sheet of coarse sandpaper placed firmly, sand side up, on the given surface of the guitar, and the unfolded pillowcase taughtly held over it using one hand (see fig. 3), firmly scratch on the pillowcase-covered sandpaper as busily and as rapidly as possible with the other hand. Seamlessly alternate between one’s left and right hands every 10–15 secs (allowing for some overlap between one’s hands) in order to avoid fatigue and cramping.

**Busily tap and scurry with fingernails.**
With the nails of one’s fingers and thumb, tap and scurry on the given surface of the guitar as busily and as rapidly as possible. Seamlessly alternate between one’s left and right hands every 10–15 secs (allowing for some overlap between one’s hands) in order to avoid fatigue and cramping.
Techniques (continued)

**Busily tap and scurry on sandpaper with fingernails.**
With the sheet of coarse sandpaper placed firmly, sand side up, on the given surface of the guitar using one hand (see fig. 4), tap and scurry on the sandpaper as busily and rapidly as possible with the other hand. Seamlessly alternate between one’s left and right hands every 10–15 secs (allowing for some overlap between one’s hands) in order to avoid fatigue and cramping.

As mentioned before, if one is unhappy to use one’s fingernails directly on the sheet the sandpaper for this technique, one should wear a pair of fitted canvas gardening gloves for the duration of the technique, each of which should be prepared at every fingertip with a line of dried in superglue where the edge of one’s fingernail would be in relation to one’s fingertip, as a substitute for a fingernail. These gloves should not be worn for any other technique.

**Fluidly rub hollow end of metal slide on sandpaper.**
With the sheet of coarse sandpaper placed firmly, sand-side up, on the given surface of the guitar using one hand, and the metal slide held almost upright (at an angle of ca. 80° in relation to the sandpaper and surface of the guitar) against it with the other (see fig. 5), fluidly rub the hollow end of the metal slide at a slow to moderate speed in a ca. 5 cm² figure-8 pattern to produce a low and busy scurrying or bubbling-like sound. The density of the sound produced using this technique should blend with and even match that of the other finger based techniques in the piece, so one should be vigilant with the speed and volume of this of the action, particularly when moving the slide against the grain, ensuring the resulting sound doesn’t become too dense or too loud.

**Positions on Guitar (right-handed instrument shown)**

**Miscellaneous Terms**

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open</td>
<td>Aside from what is necessary to perform the relevant technique, touch as little of the guitar body as possible in order to let it resonate.</td>
</tr>
<tr>
<td>Dampened</td>
<td>Dampen the resonance of the guitar body (but not the strings, which are muted with adhesive-tack) with one’s arms and torso.</td>
</tr>
</tbody>
</table>
GROUP A: ACOUSTIC GUITARS 1–4

GROUP B: ACOUSTIC GUITARS 5–8

GROUP C: ACOUSTIC GUITARS 9–12

GROUP D: ACOUSTIC GUITARS 13–16

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\( J = 60 \)

---

**A**

Busy tap with finger pads.
End.
Open.

Busy tap with finger pads.
Upper waist.
Open.

---

**B**

Busy tap with finger pads.
Shoulder.
Dampened.

---

Continue on to the next system.
*Group A*

Busily tap with finger pads. belly.

Open.

*Group B*

Busily scratch on sandpaper/pillowcase with fingernails. belly.

Open.

*Group C*

Busily scratch on sandpaper/pillowcase with fingernails. belly.

Open.

*Group D*

Busily scratch on sandpaper/pillowcase with fingernails. belly.

Open.

*Group E*


*Group F*

Busily scratch on sandpaper/pillowcase with fingernails. belly.

Open.
Busily scratch on sandpaper/pillowcase with fingernails. Shoulder. Dampened.

Busily scratch on sandpaper/pillowcase with fingernails. Upper waist. Open.
Busily tap and scurry on sandpaper with fingernails.
End.
Open.
Busily tap and scurry with fingernails. Lower waist. Open.

\[ \begin{align*} 
\text{GROUP A} & \quad \text{GROUP B} \\
\text{GROUP C} & \quad \text{GROUP D} 
\end{align*} \]
Busily tap and scurry on sandpaper with fingernails. Lower waist. Open.

Fluidly rub hollow end of metal slide on sandpaper. Butly. Open.
PANELS
(2014)

Written for Sound and Music and NMC's Next Wave programme (2014).
Awarded the George Butterworth Prize (2015).
PERFORMANCE NOTES

Instrumentation
Tuba (in C)
Percussion
Prepared Piano
Mezzo-Soprano
Violin 1
Violin 2
Viola
Cello
Double Bass
To be conducted.

Duration: ca. 8 minutes

The performers of the Percussion and Prepared Piano parts should be standing throughout the performance. All other performers should be seated. The entry and exit of each gesture should be sudden, even if the gesture is quiet or subtle. It should sound as though the sounds are being triggered by a sampler. To emphasise this, the performers should remain silent and frozen when not playing, unless specified otherwise.

Stage Setup

Percussion Setup
The required instruments for this part are a prepared snare drum (with a coated top head), a bass drum and a tam-tam.

The snare drum should be prepared by crudely sticking 4 x ca. 15 cm strips of duct tape beside one another on the top head, ca. 10 cm from the edge. Another 4 x ca. 15 cm strips should be crudely stuck beside one another on top of, and at a perpendicular angle to these strips. The surface of this duct tape should be uneven, and make a frictional sound when scratched with one’s fingers. A ca. 15 cm strip of sandpaper tape should be stuck on the top head, ca. 10 cm from the edge. A ca. 40 cm x 40 cm microfibre cloth should be placed on the top head, to the side and out of the way, in order to suppress the resonance. The performer should not directly interact with the cloth. If it gets in the way of a gesture, it should be moved to another part of the top head. See fig. 1 for the location of these preparations. The prepared snare drum should be placed on a high stand so that is playable while the performer is standing.

Prepared Piano Setup
The top 34 notes (E₅–C₈) should be prepared with adhesive-tack (e.g. Blu-Tack). A sphere of tack, ca. 1.5 cm in diameter, should be placed on the strings of each note, just in front of the bridge, in order to suppress the pitch and resonance of the notes, giving them an almost bubble wrap-like quality. Additional spheres of tack should be placed on the half-way point of the strings of the notes G₆ and D₇, between the agraffe and the bridge to modify the tone of these notes further, giving them a slightly deeper percussive quality. See fig. 2 for the location of these preparations.

(Continued on the next page)
PERFORMANCE NOTES (CONTINUED)

Prepared Piano Setup (continued)
A ca. 80 cm rosined nylon fishing line (1 mm in diameter) should be threaded under the strings of the note B4, behind the bridge (see fig. 2). Each end of the fishing line should be stuck to the frame with adhesive-tack when it is not being used, so it doesn’t get in the way or affect another gesture.

The performer is required to have 2 x retractable metal-stranded drum brushes (referred to as “Brush 1” and “Brush 2” throughout) and 2 x soft timpani mallets (referred to as “Soft Mallet 1” and “Soft Mallet 2”).

Brushes 1 and 2 should be half-open throughout the performance.

Violin 1 Bow Setup
The performer is required to have 2 x bows. Bow 1 should be loosened to the point where the hair hangs with significantly less tension than normal. Bow 2 should be set to the standard tension.

Violin 2 Bow Setup
The performer is required to have 1 x bow, which should be loosened to the point where the hair hangs with significantly less tension than normal.

Viola Bow Setup
The performer is required to have 2 x bows. Bow 1 should be loosened to the point where the hair hangs with significantly less tension than normal. Bow 2 should be set to the standard tension.

Cello Bow Setup
The performer is required to have 1 x bow, which should be loosened to the point where the hair hangs with significantly less tension than normal.

Double Bass Bow Setup
The performer is required have 2 x bows. Bow 1 should be slightly loosened so that the hair hangs with less tension than normal. Bow 2 should be set to the standard tension.

Clefs
Violin 1, Violin 2, Viola and Cello
Adapted tablature clef. The lines of the corresponding stave signify the individual strings of the instrument, where the top line is string I. This is similar to a guitar tablature clef/stave, though standard rhythmic figures are written on it and it therefore only shows the performer what string to focus on, rather than the position of their fingers on the fingerboard.

Double Bass
Adapted tablature clef for actions on strings and body of instrument. As with the adapted tablature clef, the top four lines of the corresponding stave signify the strings. The additional “B” on the clef and dotted lower line on the corresponding stave refers to the belly (and also, where specified, the bridge face) of the instrument. On the stave, the distance between the dotted lower line and the solid line above it (representing string IV) is greater than the distances between each of the solid lines, in order to further distinguish it, visually speaking, from the rest.

(Continued on the next page).
Symbols (in order of appearance)

Tuba and Mezzo-Soprano

Silent held action. This symbol is used to signify when the performer should carry out a specific silent action (the nature of which is described above the note in text) and hold the described position, silent and frozen until indicated otherwise. The performer should think of these silent actions as choreography.

Dashed tie. This is used instead of a standard tie when the specific continued action results in a fragmented sound (e.g. tremolo) rather than a sustained sound.

Modulate between \textit{mp} and \textit{ff} at one’s discretion.

Percussion

Silent held action. This symbol is used to signify when the performer should carry out a specific silent action (the nature of which is described above the note in text) and hold the described position, silent and frozen until indicated otherwise. The performer should think of these silent actions as choreography.

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Dashed tie. This is used instead of a standard tie when the specific continued action results in a fragmented sound (e.g. tremolo) rather than a sustained sound.

Prepared Piano

Silent held action. This symbol is used to signify when the performer should carry out a specific silent action (the nature of which is described above the note in text) and hold the described position, silent and frozen until indicated otherwise. Actions that don’t relate to a specific pitch are written on a one line percussion stave. The performer should think of these silent actions as choreography.

Range of notes between lowest and highest written pitches. In this case, the range is between A0 and A1.

Modulate between \textit{mp} and \textit{ff} at one’s discretion.

Violin 1

Silent held action. This symbol is used to signify when the performer should carry out a specific silent action (the nature of which is described above the note in text) and hold the described position, silent and frozen until indicated otherwise. Actions that don’t relate to a specific string are written on a one line percussion stave. The performer should think of these silent actions as choreography.

Dashed tie. This is used instead of a standard tie when the specific continued action results in a fragmented sound (e.g. tremolo) rather than a sustained sound.

Vertical tremolo. Lean the hair side of the bow quite firmly against the given string(s) and drag it over and back as quickly as possible along ca. 2 cm length(s) of the string(s). Ensure there are no discernible pitches or scratch tone-like sounds.

Silent action. This symbol is used to signify when the performer should carry out a specific silent action (the nature of which is described above the note in text). Actions that don’t relate to a specific pitch are written on a one line percussion stave. The performer should think of these silent actions as choreography.

Violin 2

Silent held action. This symbol is used to signify when the performer should carry out a specific silent action (the nature of which is described above the note in text) and hold the described position, silent and frozen until indicated otherwise. Actions that don’t relate to a specific string are written on a one line percussion stave. The performer should think of these silent actions as choreography.

Dashed tie. This is used instead of a standard tie when the specific continued action results in a fragmented sound (e.g. tremolo) rather than a sustained sound.

Vertical tremolo. Lean the hair side of the bow quite firmly against the given string(s) and drag it over and back as quickly as possible along ca. 2 cm length(s) of the string(s). Ensure there are no discernible pitches or scratch tone-like sounds.

Modulate between \textit{mp} and \textit{ff} at one’s discretion.

(Continued on the next page).
Symbols (continued)

**Viola and Cello**

- Silent held action. This symbol is used to signify when the performer should carry out a specific silent action (the nature of which is described above the note in text) and hold the described position, silent and frozen until indicated otherwise. Actions that don’t relate to a specific string are written on a one line percussion stave. The performer should think of these silent actions as choreography.

- Dashed tie. This is used instead of a standard tie when the specific continued action results in a fragmented sound (e.g. tremolo) rather than a sustained sound.

**Double Bass**

- Silent held action. This symbol is used to signify when the performer should carry out a specific silent action (the nature of which is described above the note in text) and hold the described position, silent and frozen until indicated otherwise. Actions that don’t relate to a specific string are written on a one line percussion stave. The performer should think of these silent actions as choreography.

- Dashed tie. This is used instead of a standard tie when the specific continued action results in a fragmented sound (e.g. tremolo) rather than a sustained sound.

**Images of Selected Gestures**

**Percussion**

- Prepared snare drum: Tremolo drag Brush 1 against the top head (bar 10).

- Bass drum: Bow the plastic stick of the superball mallet against the top head (though a floor tom is pictured above, bar 22).

- Prepared snare drum: Stir Brushes 1 and 2 into the outer edge of the top head (only Brush 1 is shown here for clarity, bar 37).

- Prepared snare drum: Busily scratch and scurry on the duct tape with one’s fingers and thumb (bar 57).

(Continued on the next page).
PERFORMANCE NOTES (CONTINUED)

Images of Selected Gestures (continued)

**Violin 1 and Viola**

- **Vertical tremolo (bar 3).**
  - Drag the bow over and back as quickly as possible along ca. 2 cm lengths of the strings.
  - Mute all strings with one’s left hand.
  - Tightly grip the bow by the wood ca. 15 cm up from frog.

- **Twist Bow 1 against the strings (bar 37).**
  - Firmly twist the bow ca. 180° over and back at a moderate pace to create a crackling sound.
  - Mute all strings with one’s left hand.
  - Tightly grip the bow by the wood ca. 15 cm up from frog.

**Violin 2**

- **Vertical tremolo (bar 3).**
  - Drag the bow over and back as quickly as possible along ca. 2 cm lengths of the strings.
  - Mute all strings with one’s left hand.
  - Tightly grip the bow by the wood ca. 15 cm up from frog.

**Cello and Double Bass**

- **Vertical tremolo (pictured here on a cello, bar 10).**
  - Mute all strings with one’s left hand.
  - Drag the bow over and back as quickly as possible along ca. 2 cm lengths of the strings.
  - Tightly grip the bow by the wood ca. 15 cm up from frog.
SUDDEN ENTRIES AND EXITS THROUGHOUT, AS IF SOUNDS ARE TRIGGERED ON A SAMPLER.

At the back of one's throat, but without engaging one's vocal cords, perform a deep, granular growl through the mouthpiece while fingering the note below. The mouthpiece should be attached to the instrument. Ensure there are no discernible pitches. Aim for a low, dense and static cluster.

Continue to hold the position.

Tight grip Brush 1 by its strands (R.H.). Grip the brush ca. 4 cm from the tips of its strands like a pen.

Prepared Snare Drum (Strainer off):
Ensure the cloth is placed slightly to the side of the top head throughout, to suppress the resonance.

Prepared Snare Drum:
Rest L.H. on the strainer (still switched off).

Stand silent and frozen.

Prepared Snare Drum:
Gripping Brush 1 in this way, silently and firmly push its strands into the centre of the snare drum's top head (directly on the skin itself, R.H.).

Sit silent and frozen.

Prepared Snare Drum:
Ensure the cloth is placed slightly to the side of the top head throughout, to suppress the resonance.

Prepared Snare Drum:
Tightly grip the bow by the wood (ca. 15 cm up from the frog) and press against the strings below.

Continue to hold the position.

Mute all strings.

Continue to hold the position.

Mute all strings.

Mute all strings.

Mute all strings.

Mute all strings.

Mute all strings.

Mute all strings.

Mute all strings.

Mute all strings.

Mute all strings.

Mute all strings.

Mute all strings.

Mute all strings.

Mute all strings.

Mute all strings.
At the back of one's throat, but without engaging one's vocal cords, perform a deep, granular growl through the mouthpiece while fingering the note below.

PREPARED SNARE DRUM:
Continue to hold the position.
Tremolo drag Brush 1 against the top head (R.H.).

Drag the tips of its strands over and back as quickly as possible on a ca. 4 cm² area of the snare drum's top head. Note that repetition of this gesture will likely result in part of the top head's outer coating peeling off.

Silently switch to BASS DRUM with the bow (R.H.) and the superball mallet (L.H.).

PREPARED SNARE DRUM:
Silently turn the strainer ON (L.H.).

PREPARED SNARE DRUM:
Silently turn the strainer OFF (L.H.).

PREPARED SNARE DRUM:
Silently switch to Bow 2 (standard tension).

Mute all strings.
Bow the string behind the top nut (standard grip).
Aim for as smooth a sound as possible.

Mute all strings.
Sul pont.
Continue to hold the position.

Mute all strings.
Silently switch to Bow 2 (standard tension).

Mute all strings.
Bow the string behind the top nut (standard grip).
Aim for as smooth a sound as possible.

Mute all strings.
Sul pont.
Continue to hold the position.

Mute all strings.
Sul pont.
Continue to hold the position.
BASS DRUM:
Silently and firmly lean the head of the superball mallet against the center of the bass drum's top head at an angle of ca. 45° (L.H.). Tightly grip the mallet with all four fingers as far away (ca. 25 cm) from the head of the plastic stick as possible.

Continue to hold the position.
Bow the plastic stick of the superball mallet against the top head (R.H. and L.H.). Lean the bow heavily on the plastic stick of the superball mallet, ca. 2 cm up from its rubber head and bow slowly (R.H.). The sound should be extremely low, murky and quite resonant.

I
II
III
IV

(Bow the string behind the top nut).
Continue to hold the position.
Mute all strings.
Bow the string behind the top nut.

Release the bow from the strings.

Mute all strings.
Bow the string behind the top nut.

Release Bow 1 from the strings.

Silently put down Bow 1.
Silently put down the bow and the superball mallet and switch to PREPARED SNARE DRUM with Brush 1 (R.H.) Brush 2 (L.H.).

Tightly pinch Brushes 1 and 2 by their strands (R.H. and L.H.). Pinch each of the brushes ca. 4 cm from the tips of its strands between one's thumb and the inside knuckles of one's forefingers. Support the weight of the brushes with one's closed palms.

Silently switch to Bow 1 (loosened tension) and rest one's instrument on one's shoulder (i.e. the standard playing position).

Tightly grip Brush 1 (R.H.) and Brush 2 (L.H.) by their strands. Grip each brush ca. 4 cm from the tips of its strands like a pen.
TBA.

PREPARED SNARE DRUM (STRAINER OFF):
Continue to grip Brushes 1 and 2 in this way. Silently and firmly push the tips of the strands against the outer edge of the top head (directly onto the skin itself, R.H.). The strands of the brushes should be focused ca. 1 cm away from each other, practically colliding.

PREPARED SNARE DRUM:
Continue to hold the position. Stir Brushes 1 and 2 into the outer edge of the top head (R.H. and L.H.). These actions should feel like drawing repeating circles in the air with one’s wrists, rather than like twisting screwdrivers. Ensure the strands bend and collide with one another. The sound should be crackly, busy and complex.

PERC.

On the keyboard (R.H., continue to grip Brushes 1 and 2 as before with L.H. and R.H.).

Firmly push the tips of the strands of Brushes 1 and 2 into the bridge of the notes below (continue to hold the brushes as before, L.H. and R.H.).

Continue to hold position. Stir Brushes 1 and 2 into the bridge of the notes below (L.H. and R.H.). Focus each brush on a single spot and stir at a moderate pace. These actions should feel like drawing repeating circles in the air with one’s wrists, rather than like twisting screwdrivers. Ensure the strands simultaneously make contact with the strings (between the bridge pins only) and the wood of the bridge itself. The sound should be crackly, busy and complex.

PREP. PNO.

Continue to hold position. Stir Brushes 1 and 2 into the bridge of the notes below (L.H. and R.H.). Focus each brush on a single spot and stir at a moderate pace. These actions should feel like drawing repeating circles in the air with one’s wrists, rather than like twisting screwdrivers. Ensure the strands simultaneously make contact with the strings (between the bridge pins only) and the wood of the bridge itself. The sound should be crackly, busy and complex.

M-S.

Continue to hold position. Mute all strings ca. 4 cm up from the bridge. Tightly grip Bow 1 by the wood (ca. 15 cm up from the frog) and silently lean against the strings below.

Continue to hold the position. Mute all strings ca. 4 cm up from the bridge. Twist Bow 1 against the strings below. Firmly twist the bow ca. 180° over and back at a moderate pace (so there is an alternating between the wood and loosened hair making contact with the strings) to create a crackling sound. Avoid any squeaks or scratch tone-like sounds.

VLA.

Continue to hold position. Mute all strings ca. 4 cm up from the bridge. Twist Bow 1 against the strings below. Firmly twist the bow ca. 180° over and back at a moderate pace (so there is an alternating between the wood and loosened hair making contact with the strings) to create a crackling sound. Avoid any squeaks or scratch tone-like sounds.

Mute all strings ca. 4 cm from the bridge. Tightly grip Bow 1 by the wood (ca. 15 cm up from the frog) and silently lean against the strings below.

Mute all strings ca. 4 cm from the bridge. Tightly grip Bow 1 by the wood (ca. 15 cm up from the frog) and silently lean against the strings below.

Mute all strings ca. 4 cm from the bridge. Tightly grip Bow 1 by the wood (ca. 15 cm up from the frog) and silently lean against the strings below.

VC.

Mute all strings ca. 4 cm from the bridge. Tightly grip the bow by the wood (ca. 15 cm up from the frog) and silently lean against the strings below.

DB.
43

(TB.A.  Stir Brushes 1 and 2 into the outer edge of the top head.)

(Silently put down Brushes 1 and 2 and switch to BASS DRUM with Large Soft Mallet 2 (L.H.).

(BASS DRUM: Beat with Large Soft Mallet 2 (L.H.).

Silently put down Brushes 1 and 2 and switch to PREPARED SNARE DRUM with Brush 2 (R.H.).

Silently put down Brushes 1 and 2 and place R.H. on the belly of the instrument.

Silently put down the bow.

Mute all strings ca. 4 cm from the bridge.

Firmly and busily pluck, flick and scurry on the strings below (R.H.).
Perform this in a random order with one's fingers and thumb. Aim for a percussive, uneven, dynamically varied and busy overall sound.

Twist Bow 1 against the strings below.

Continue to hold the position. Mute all strings.

Firmly and busily pluck, flick and scurry on the strings below (L.H. and R.H.).
Perform this in a random order with one's fingers and thumb. Aim for a percussive, uneven, dynamically varied and busy overall sound.

Continue to hold the position. Mute all strings.

Silently put down the bow.

Hold the instrument on one's lap like a ukulele.

Silently put down Bow 1 and place R.H. on the belly of the instrument.

Unevenly and quite busily tap on the belly and the bridge of the instrument with the tips and pads of one's fingers and thumb (R.H.).
Focus around the f-hole nearest to one's right hand. Aim for a rhythmically uneven and dynamically varied sound.

Silently put down Bow 1 and place R.H. on the belly of the instrument.

Continuous to hold the position.

Mute all strings.

Unevenly and quite busily tap on the belly and the bridge of the instrument with the tips and pads of one's fingers and thumb (R.H.).
Focus around the f-hole nearest to one's right hand. Aim for a rhythmically uneven and dynamically varied sound.

Continue to hold the position.

Mute all strings.

Firmly and busily pluck, flick and scurry on the strings below (L.H. and R.H.).
Perform this in a random order with one's fingers and thumb. Aim for a percussive, uneven, dynamically varied and busy overall sound.

Twist Bow 1 against the strings below.

Continue to hold the position. Mute all strings.

Firmly and busily pluck, flick and scurry on the strings below (L.H. and R.H.).
Perform this in a random order with one's fingers and thumb. Aim for a percussive, uneven, dynamically varied and busy overall sound.

Silently put down Brushes 1 and 2 into the outer edge of the top head.

Silently put down Brushes 1 and 2 into the bridge of the notes below.

Place one's fingers on the strings within the range below (L.H. and R.H.).

Continue to hold the position.

Mute all strings ca. 4 cm up from the bridge.

Firmly and busily pluck, flick and scurry on the strings below (R.H.).
Perform this in a random order with the nails and tips of one's fingers and thumbs. Aim for a pitchless, uneven, dynamically varied and chaotic overall sound.

Continue to hold the position.

Mute all strings.

Firmly and busily pluck, flick and scurry on the strings below (L.H. and R.H.).
Perform this in a random order with the nails and tips of one's fingers and thumbs. Aim for a pitchless, uneven, dynamically varied and chaotic overall sound.

Continue to hold the position.

Silently put down Brushes 1 and 2.

Bass with Large Soft Mallet 2 (L.H.).

Silently put down the soft mallet and switch to PREPARED SNARE DRUM with Brush 2 (R.H.).

Silently put down Brushes 1 and 2 and switch to BASS DRUM with Large Soft Mallet 2 (L.H.).

Continue to hold the position. Firmly and busily pluck, flick and scurry on the strings (in front and behind bridge) of the note range below. Intermittently knock and tap on the body and the frame of instrument (B.H. and L.H.).
Perform this in a random order with one's fingers and thumb. Aim for a percussive, uneven, dynamically varied and busy overall sound.

Continue to hold the position.

Mute all strings.

Firmly and busily pluck, flick and scurry on the strings below (R.H.).
Perform this in a random order with the nails and tips of one's fingers and thumbs. Aim for a pitchless, uneven, dynamically varied and chaotic overall sound.

Twist Bow 1 against the strings below.

Continue to hold the position.

Mute all strings.

Firmly and busily pluck, flick and scurry on the strings below (L.H. and R.H.).
Perform this in a random order with one's fingers and thumb. Aim for a percussive, uneven, dynamically varied and busy overall sound.

Silently put down Brushes 1 and 2 and place R.H. on the belly of the instrument.

Silently put down the soft mallet and switch to PREPARED SNARE DRUM with Brush 2 (R.H.).

Silently put down Brushes 1 and 2 and switch to BASS DRUM with Large Soft Mallet 2 (L.H.).

Continue to hold the position. Firmly and busily pluck, flick and scurry on the strings (in front and behind bridge) of the note range below. Intermittently knock and tap on the body and the frame of instrument (B.H. and L.H.).
Perform this in a random order with one's fingers and thumb. Aim for a percussive, uneven, dynamically varied and busy overall sound.
Perform busy, consonant mouth noises and tongue clicks into the mouthpiece while busily depressing and releasing the valves...
Don't allow the valve sounds to be significantly louder than the mouth noises. Only choose valves whose noises homogeneously blend with the overall texture. Aim for as busy a sound as possible.

Tightly pinch Brush 1 by its strands (R.H.).
As before.

PREPARED SNARE DRUM (STRAINER OFF):
Continue to hold Brush 1 in this way. Silently and firmly push the tips of the strands against the centre of the top head (directly onto the skin itself, R.H.).

PREPARED SNARE DRUM:
Continue to hold the position.
Silently and firmly push the tips of the strands against the centre of the top head (directly onto the skin itself, R.H.).

PREPARED SNARE DRUM:
Busily scratch and scurry on the duct tape with one's fingers and thumb (L.H.).

Make busy chewing and consonant noises with one's mouth. Intermittently click the back of one's tongue against one's palate, and the front of one's tongue against one's lower lip.

(Firmly and busily pluck, flick and scurry on the strings of the note range below. Intermittently knock and tap on the body and the frame of instrument).

(Firmly and busily pluck, flick and scurry on the strings below).
Intermittently knock and tap on the body and the frame of instrument).

(Firmly and busily pluck, flick and scurry on the strings below).

(Firmly and busily pluck, flick and scurry on the strings below).

(Firmly and busily pluck, flick and scurry on the strings below).

(Firmly and busily pluck, flick and scurry on the strings below).

(Firmly and busily pluck, flick and scurry on the strings below).

(unevenly and quite busily tap on the belly and the bridge of the instrument with the tips and pads of one's fingers and thumb).

(Firmly and busily pluck, flick and scurry on the strings below, and busily tap on the belly and the bridge face of instrument (R.H.). Perform this in a random order with the nails, tips and pads of one's fingers and thumbs. Aim for a pitchless, uneven, dynamically varied and chaotic overall sound.

(norm. - sul pont. (range of focus on strings))

Firmly and busily pluck, flick and scurry on the strings below, and busily tap on the belly and the bridge face of instrument (R.H.). Perform this in a random order with the nails and tips of one's fingers only (not one's thumb). Ensure the strings are sufficiently muted, so that no open string or pitch is sounded.

(sul tasto - norm. (range of focus on strings))

Mute all strings with one's thumb and palm (L.H.).
Firmly and busily pluck, flick and scurry on the strings below (L.H.). Perform this in a random order with the nails and tips of one's fingers only (not one's thumb). Ensure the strings are sufficiently muted, so that no open string or pitch is sounded.

Mod. between

Mod. between

Mute all strings. Sul pont.

Firmly and busily pluck, flick and scurry on the strings below (L.H.). Perform this in a random order with the nails and tips of one's fingers only (not one's thumb). Ensure the strings are sufficiently muted, so that no open string or pitch is sounded.

(sul tasto - norm. (range of focus on strings))

Mod. between

Mod. between
(Perform busy, consonant mouth noises and tongue clicks into the mouthpiece while busily depressing and releasing the valves).

Continue to hold the position.

Silently remove one’s hands from top head, put down Brush 1 and switch to TAM TAM and BASS DRUM with Soft Mallet 1 (R.H.) and Soft Mallet 2 (L.H.).

(Slip Brush 1 into the centre of the top head).

Silently remove one’s hands from top head, put down Brush 1 and switch to TAM TAM and BASS DRUM with Soft Mallet 1 (R.H.) and Soft Mallet 2 (L.H.).

(Busily scratch and scurry on the duct tape with one’s fingers and thumb).

Silently remove one’s hands from top head, put down Brush 1 and switch to TAM TAM and BASS DRUM with Soft Mallet 1 (R.H.) and Soft Mallet 2 (L.H.).

(Firmly and busily pluck, flick and scurry on the strings of the note range below.
Intermittently knock and tap on the body and the frame of instrument).

Silently switch to Bow 2 (standard tension).

(Make busy chewing and consonant noises with one’s mouth. Intermittently click the back of one’s tongue against one’s palate, and the front of one’s tongue against one’s lower lip.)

Release one’s hands from the strings.

(Intermittently knock and tap on the body and the frame of instrument).

Silently switch to Bow 2 (standard tension).

(Firmly and busily pluck, flick and scurry on the strings of the note range below.
Intermittently knock and tap on the body and the frame of instrument).

Silently switch to Bow 2 (standard tension).

(Firmly and busily pluck, flick and scurry on the strings below).

Silently switch to Bow 2 (standard tension) and rest instrument on shoulder (i.e. the standard playing position).

Silently thread Bow 2 behind the strings and firmly press its hair down on the centre of the bridge face, ready to bow (standard grip).

(Firmly and busily pluck, flick and scurry on the strings below, and busily tap on the belly and the bridge face of instrument).

Silently switch to Bow 2 (standard tension),

Repeat previous position.

(Twist Bow 1 against the strings below).

Silently switch to Bow 2 (standard tension).

(Firmly and busily pluck, flick and scurry on the strings below).

Release the bow from the strings.

(Firmly and busily pluck, flick and scurry on the strings below).

Mute all strings.

(Firmly and busily pluck, flick and scurry on the strings below).

Mute all strings.

(Firmly and busily pluck, flick and scurry on the strings below).

Mute all strings.

(Firmly and busily pluck, flick and scurry on the strings below, and busily tap on the belly and the bridge face of instrument).

Mute all strings.

(Firmly and busily pluck, flick and scurry on the strings below).

Silently switch to Bow 2 (standard tension) and rest instrument on shoulder (i.e. the standard playing position).
Produce the highest possible "sss" sound with one's mouth through the mouthpiece. Continuously create this sound while exhaling and inhaling. The sound should be non-pitched and piercing.

Silently take hold of the left end of the rosined nylon fishing that is threaded under the strings (behind the bridge) of the note below (L.H.).

On the keyboard (R.H., continue to hold the fishing line with L.H.).

Smoothly bow the strings of the given note behind the bridge with the rosined nylon fishing line. Slowly and gently pulse (R.H. and L.H.). Hold ca. 40 cm of the line at a medium tension, and at an wide or flat an angle as possible. Bow at a moderate speed. Avoid any squeaks. Aim for as smooth a sound as possible.

Produce the highest possible "sss" sound with one's mouth. Continuously create this sound while exhaling and inhaling. The sound should be non-pitched and piercing.

Continue to hold the position.
Mute all strings.
Bow the string behind the top nut.

Mute all strings.
Silently move the bow behind the top nut of the string below, ready to bow (standard grip).

Continue to hold previous position.
Mute all strings.
Bow the string behind the top nut.

Continue to hold the position.
Bow the centre of the bridge face.
Lean firmly on the bow. Aim for whistling sound.

Continue to hold the position.
Mute all strings.
Slowly, smoothly and gently bow the side of the bridge. Aim for a smooth white noise sound.
(Produce the highest possible "sax" sound with one's mouth through the mouthpiece).

**TBA.**

**PERC.**

**PREP. PNO.**

**M-S.**

**VLN. 1**

**VLN. 2**

**VLA.**

**V.C.**

**DB.**

(Produce the highest possible "sax" sound with one's mouth through the mouthpiece).

**TAM TAM.**

Gently tremolo beat with Soft Mallet 1 (R.H.).

Although the texture is quite subtle, the entry should feel sudden. Blend the tam tam with the bass drum as if they are one resonant instrument.

**BASS DRUM.**

Gently tremolo beat with Soft Mallet 2 (L.H.).

Although the texture is quite subtle, the entry should feel sudden. Blend the bass drum with the tam tam as if they are one resonant instrument.

(Smoothly bow the strings of the given note behind the bridge with the rosinated nylon fishing line. Slowly and gently pulse).

(Bow the string behind the top nut).

(Bow the string behind the top nut).

(Bow the string behind the top nut).

(Bow the centre of the bridge face).

(Slowly, smoothly and gently bow the side of the bridge).
(Produce highest possible "sss" sound with one's mouth through the mouthpiece).

Continue to hold the position.

(Gently tremolo beat with Soft Mallet 1).

(Gently tremolo beat with Soft Mallet 2).

(Smoothly bow the strings of the given note behind the bridge with the rosined nylon fishing line. Slowly and gently pulse).

Silently pick up Soft Mallet 1 (R.H.) and Soft Mallet 2 (L.H.).

Gently tremolo beat the strings of the note range below with Soft Mallets 1 and 2 (R.H. and L.H.).

Beat along the middle the strings for the purest sound. Rapidly alternate between the strings so that no individual pitch sounds above the rest. Aim for a consistent and resonant wash.

(Produce the highest possible "sss" with mouth).

Continue to hold the position.

(Bow string behind the top nut).

Continue to hold the position.

(Bow the string behind the top nut).

Continue to hold the position.

(Bow the string behind the top nut).

Continue to hold the position.

(Bow the center of the bridge face).

Continue to hold the position.

(Slowly, smoothly and gently bow the side of the bridge).

Continue to hold the position.
(Gently tremolo beat with Soft Mallet 1).

Suddenly cut off the resonance along with prepared piano.

(Gently tremolo beat with Soft Mallet 2).

Suddenly cut off the resonance along with prepared piano.

Suddenly lift the pedal, cutting off the resonance along with percussion. Dampen the strings with a cloth to assist.

(Gently tremolo beat the strings of the note range below with Soft Mallets 1 and 2).
Paul McGuire

GARAGEN

(2014)
PERFORMANCE NOTES

Instrumentation

Dismantled Piano
Percussion
Viola
Double Bass

Duration: ca. 13 minutes

The score is laid out according to where each performer is positioned on stage (see Stage Setup for more details).

This piece does not require a conductor. However, one of the performers should lead the piece and cue where appropriate.

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

The performers should read from the full score rather than from individual parts.

Stage Setup

Dismantled Piano Setup
The performer should stand throughout.

The dismantled piano consists of the inside (i.e. the soundboard, frame and exposed strings) of an upright piano.

The dismantled piano should be placed flat and string side up on top of two upright, empty metal oil barrels (one of which should be played by, and therefore accessible to the percussionist) and turned so that, from the performers perspective, the strings to the left are the bass strings.

The performer is required to have 1 x superball mallet, 1 x soft timpani mallet, 1 x retractable metal-stranded drum brush (referred to as a “drum brush” throughout the score), 4 x metal thimbles, and 1 x bow (violin, viola or cello bow) to use on the instrument.

The drum brush should be half-open throughout the performance.

Percussion Setup
The performer should be seated throughout.

The percussion instruments are a snare drum and an upright empty metal oil barrel (which should be supporting one side of the dismantled piano).

The snare drum should be placed on the performers lap, but the snare wires should not be impeded in any way. The strainer should be switched off throughout.

The oil barrel should be to the performers right, at a distance of between 50 cm and 80 cm from the performer.

The performer is required to have 1 x retractable metal-stranded drum brush (referred to as a “drum brush” throughout the score) and 1 x circular, plastic-stranded scrubbing brush (ca. 8 cm in diameter, referred to as a “scrubbing brush” throughout the score) to use on the instrument.

The drum brush should be half-open throughout the performance.

Viola Setup
The performer should be seated throughout.

The viola should be placed upright on the performer’s lap and held in the style of a miniature cello.

The performer is required to have 2 x bows to use on the instrument. Bow 1 should be loosened to the point where its hair hangs with significantly less tension than normal. Bow 2 should be set to the standard tension.

Double Bass Setup
The performer should stand throughout.

Scordatura: String IV should be tuned down approximately one octave (E0 → E-1), to a point where the pitch is barely audible.

A deflated rubber balloon should be tied around string IV, ca. 4 cm from the bridge, to suppress some of the string’s overtones.

The performer is required to have 1 x bow to use on the instrument. This should be set to the standard tension at the beginning of the performance, though the performer is required to loosen it later.
**PERFORMANCE NOTES (CONTINUED)**

**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 performers should be playing, and the blank spaces in between represent a period in which they should either be silent or allowing their previous statement to ring out. 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 performers should not follow stopwatches, but instead should use their collective intuition to dictate the length of each phrase. As the instruments in this piece are used in unconventional ways, traditional staves have been eschewed, for the most part, in favour of a series visual graphs that represent the various shifting parameters of each performer’s part.

When a passage has this written above it, one should not try to interpret the notation precisely, but instead try to approximate the textural density using all of the notated actions, though not necessarily in the written order. The text written after the colon briefly describes the overall sound one should aim for. Note that this only applies to the section from rehearsal mark \( \text{\textbf{A}} \) as far as rehearsal mark \( \text{\textbf{C}} \), where there is too much notational detail to be reproduced exactly and the sound is intended to be chaotic and densely layered.

Points of Viola Bow 1

The 1/2 point and 1/4 point of Viola 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.
- **B.H.** Perform the specific gesture(s) using both hands.

**Clefs (in order of appearance)**

*Dismantled Piano*

- **Stir drum brush into bridge of A0 clef.** A notehead followed by a solid horizontal line on the corresponding stave depicts when and for how long one should stir the drum brush into the bridge of the note A0 (where C4 = middle C). When performing this action, one should focus the strand tips on a single spot on the bridge and stir at a moderate pace. The action should feel like drawing repeating circles in the air with one’s wrist, rather than like twisting a screwdriver. Ensure the stands simultaneously make contact with the strings (between the bridge pins only) and the wood of the bridge itself. The sound should be crackly, busy and complex.

- **Busily tap frame clef.** A symbol on the corresponding stave depicts when one should tap on the metal frame with the fingertips and thumb tips of both hands. Note that 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. As metal thimbles are placed on one’s forefingers and middle fingers, the sound generated by these fingers should be louder and harsher than by those without thimbles. Aim for as busy a sound as possible.

**Percussion**

- **Push drum brush along snare drum clef.** A notehead followed by a solid, thick horizontal line on the corresponding stave depicts when and for how long one should slowly push the metal strand tips of the drum brush along the top head of the snare drum. The drum brush should be held at an angle of ca. 45° in relation to the top head and the action should be performed against the grain to achieve maximum friction. Note that repetition of this gesture will likely result in part of the top head’s outer coating peeling off.

- **Tremolo drag drum brush along snare drum clef.** A symbol on the corresponding stave depicts when one should drag the metal tips of the drum brush over and back as quickly as possible on a ca. 4 cm² area of the snare drum’s top head. Note that 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. Also note that repetition of this gesture will likely result in part of the top head’s outer coating peeling off.

(Continued on the next page).
PERFORMANCE NOTES (CONTINUED)

Clefs (continued)

Tremolo tap loose snare wires against bottom head of snare drum clef. A ' symbol on the corresponding stave depicts when one should quickly tap the loose snare wires against the bottom head of the snare drum with one's fingers. Note that 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.

Percussion (continued)

Viola

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 instrument.

Position on belly of instrument clef. A dashed horizontal line on the corresponding stave depicts the position of the bow on the belly.

Tremolo/rattle clef. A ' symbol on the corresponding stave depicts when one should perform a tremolo, and a ' symbol depicts when the performer should quickly and chaotically rattle Bow 1 against a specific part of the instrument. 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 each gesture should be performed for.

Dismantled Piano

Behind the nut tablature clef. A notehead followed by a solid horizontal line on the corresponding stave depicts when and for how long one should bow a specific string(s) behind the nut.

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 instrument). 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.

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.

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).

Adapted tablature clef. The symbols and lines on the corresponding stave depict what type of actions (see Symbols) as well when these actions should occur on a specific string(s) of the instrument.

Position on belly of instrument clef. A dashed horizontal line on the corresponding stave depicts the position of the bow on the belly. A solid curved line depicts the position of the bow, as well as when and at what rate one should drag it bow along the belly.

Play the sound and then let it ring.

Beginning of the pattern.

End of the pattern (to be repeated afterwards ad libitum).

Repeat the pattern ad libitum on to the next system.

Repeat the pattern ad libitum until the end of the solid horizontal line and let the sound ring.

Upbow.

Sound the given cluster continuously. The solid horizontal line depicts how long one should do this for.

(Continued on the next page).
Symbols (continued)

**Dismantled Piano (continued)**

1. **Percussion**
   - Repeat the group of patterns *ad libitum* until the end of the solid horizontal line.
   - Begin of the pattern.
   - Repeat the pattern *ad libitum* until the end of the solid horizontal line.
   - Crescendo from silence.
   - Repeat the pattern *ad libitum* on to the next system.
   - Decrescendo to silence.

2. **Viola**
   - Dynamic not applicable. Here, the particular parameter this refers to (an angle or a position) remains static and helps to shape the overall sound rather than generating a sound on its own.
   - Dynamic not applicable to the relevant parameter throughout the *ad libitum* repeat, regardless of any subsequent dynamic changes made to the larger group of patterns as a whole. The parameter in question (an angle or a position) remains static and helps to shape the overall sound rather than generating a sound on its own.

3. **Double Bass**
   - Beginning of the pattern.
   - End of the pattern (to be repeated afterwards *ad libitum*).
   - Play harmonic "Y" of the given string. The solid horizontal line depicts how long one should do this for.
   - Dynamic not applicable to the relevant parameter throughout the *ad libitum* repeat, regardless of any subsequent dynamic changes made to the larger group of patterns as a whole. The parameter in question (an angle or a position) remains static and helps to shape the overall sound rather than generating a sound on its own.
   - Dynamic not applicable. Here, the particular parameter this refers to (an angle or a position) remains static and helps to shape the overall sound rather than generating a sound on its own.

4. **Other**
   - Repeat the group of patterns *ad libitum* on to the next system.
   - Repeat the pattern *ad libitum* on to the next system.
   - Pluck the given string with one’s fingernail.
   - Pluck the given string with one’s fingertip.
   - Flick the given string with one’s fingernail.
   - Flick the given string with one’s fingertip.
   - Slap all four strings against the fingerboard (around the flautando bowing area) with the palm of one’s left hand. This should be a short percussive noise with no discernible pitch.
   - Modulate between *f* and **fff** at one’s discretion.

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**Additional Notes**

- Repeat the group of patterns *ad libitum* until the end of the solid horizontal line.
- Repeat the pattern *ad libitum* on to the next system.
- Repeat the pattern *ad libitum* until the end of the solid horizontal line.
- Repeat the group of patterns *ad libitum* until the end of the solid horizontal line.
- Repeat the pattern *ad libitum* on to the next system.
- Repeat the group of patterns *ad libitum* until the end of the solid horizontal line.
- Repeat the pattern *ad libitum* on to the next system.
<table>
<thead>
<tr>
<th>TIME</th>
<th>DISMANTLED PIANO</th>
<th>PERCUSSION</th>
<th>VIOLA</th>
<th>DOUBLE BASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>30°</td>
<td>Superball mallet.</td>
<td>Firmly beat the most resonant section of the sound board.</td>
<td>1/2 point of Bow 1 (in contact with instrument).</td>
<td>Scordatura: String IV should be tuned down approximately one octave (E0 → E-1), to a point where the pitch is barely audible.</td>
</tr>
<tr>
<td>60°</td>
<td>Bow 1 (loosened tension): Grip by the wood at 1/4 point. Lean firmly (so that the wood of the bow presses against the back of the hair).</td>
<td>1/2 point of Bow 1 (in contact with instrument).</td>
<td>Bow (standard tension): standard grip</td>
<td>Repeat ad libitum. Allow the loosened string IV to occasionally rattle against the fingerboard as the bowing dynamic increases. This should complement the complex rattling texture performed on Viola.</td>
</tr>
<tr>
<td>15°</td>
<td>Silently put down superball mallet.</td>
<td>Silently put down Superball mallet.</td>
<td>Stop synchronizing bowing with Double Bass, but maintain a similar bowing speed.</td>
<td>Stop synchronizing bowing with Viola, but maintain a similar bowing speed.</td>
</tr>
</tbody>
</table>

**R.H.**

**L.H.**

**Snare Drum:**
- Drum brush: Grip by strands like a pen.
- Strainer switched off throughout.

**Soft timpani mallet:**
- Silently put down soft timpani mallet.

**Superball mallet:**
- Silently pick up superball mallet.

**Drum brush:**
- Silently pick up drum brush.

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Gradually pulse between right hand and left hand. Allow the textures to overlap.

Soft timpani mallet.

Gradually pulse between right hand and left hand. Allow the textures to overlap.

Drum brush: Grip by strands like a spoon.

Drum brush: Grip by strands like a pen.

Temporarily put down drum brush and pick up soft timpani mallet.

Repeat ad libitum.

Soft timpani mallet.

Repeat ad libitum.

Repeat ad libitum.

Repeat ad libitum.

1/2 point of bow 1.

Soft timpani mallet.

Temporarily put down drum brush and pick up soft timpani mallet.

Soft timpani mallet.

Repeat ad libitum.

Soft timpani mallet.

Repeat ad libitum.

Repeat ad libitum.

Repeat ad libitum.
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 performers should be playing, and the blank spaces in between represent a period in which they should either be silent or allowing their previous statement to ring out. 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 performers should not follow stopwatches, but instead should use their collective intuition to dictate the length of each phrase. As the instruments in this piece are used in unconventional ways, traditional staves have been eschewed, for the most part, in favour of a series visual graphs that represent the various shifting parameters of each performer’s part.

When a passage has this written above it, one should not try to interpret the notation precisely, but instead try to approximate the textural density using all of the notated actions, though not necessarily in the written order. The text written after the colon briefly describes the overall sound one should aim for. Note that this only applies to the section from rehearsal mark to rehearsal mark, where there is too much notational detail to be reproduced exactly and the sound is intended to be chaotic and densely layered.

Points of Viola Bow 1

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

Silently put down scrubbing brush.

(Repeat ad libitum).

Bow 1 (loosened tension): Standard grip.

Silently move bow in front of the strings.
Bow (standard tension): Standard grip.

Bow the strings of the below notes behind the agraffe (just in front of the pins).

Silently pick up bow.

Silently put down bow.

Silently put down soft timpani mallet.

Silently thread the bow behind the strings and on to the belly of the viola.

Loosen the tension of the bow so that the hair hangs with significantly less tension than normal. Silently thread the bow behind the strings and on to the belly of the double bass.

(Repeat ad libitum.)

(Repeat ad libitum.)
LH. Assist one’s right hand in maneuvering Bow 1.

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

VLA. 1/2 point of Bow 1.

R.H. Bow (loosened tension): Standard grip.
Lean firmly (so that the wood of the bow presses against the back of the hair).

LH. Assist one’s right hand in maneuvering the bow.

PERC. R.H. Silently pick up drum brush.

SNARE DRUM: Drum brush.
Silently pick up drum brush.
Silently put metal thimbles on the forefingers and middle fingers of both hands.
Approximate: Busy, colourful and uneven tapping.
Fingers (thimbles placed on forefingers and middle fingers).

Approximate: Busy and violent scratching.
SNARE DRUM:
Drum brush.

Approximate: Intermittent rattling.
SNARE DRUM:
Fingers.

Approximate: Violent and uneven cracking and rattling.
Bow 1 (loosened tension): Grip by the wood at 1/4 point.
Lean firmly (so that the wood of the bow presses against the back of the hair).

Approximate: Busy, violent and uneven scurrying.
Fingers.

Approximate: Busy, violent and uneven plucking and slapping.
Fingers.

Approximate: Busy, violent and uneven scratching.
Bow (loosened tension): Standard grip.
Lean firmly (so that the wood of the bow presses against the back of the hair).

Approximate: Violent and uneven scratching.
Bow (loosened tension): Standard grip.
Lean firmly (so that the wood of the bow presses against the back of the hair).

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Fingers.

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Bow (loosened tension): Standard grip.
Lean firmly (so that the wood of the bow presses against the back of the hair).

Approximate: Violent and uneven scratching.
Bow (loosened tension): Standard grip.
Lean firmly (so that the wood of the bow presses against the back of the hair).

Approximate: Busy, violent and uneven plucking and slapping.
Fingers.

Partially mute strings I–IV with thumb.
Mod. between f and fff
Repeat ad libitum.

Approximate: Busy, violent and uneven tapping.
Fingers (thimbles placed on forefingers and middle fingers).

Approximate: Busy and violent scratching.
SNARE DRUM:
Drum brush.

Approximate: Intermittent rattling.
SNARE DRUM:
Fingers.

Approximate: Violent and uneven cracking and rattling.
Bow 1 (loosened tension): Grip by the wood at 1/4 point.
Lean firmly (so that the wood of the bow presses against the back of the hair).

Approximate: Busy, violent and uneven scurrying.
Fingers.

Approximate: Busy, violent and uneven plucking and slapping.
Fingers.

Partially mute strings I–IV with thumb.
Mod. between f and fff
Repeat ad libitum.

N O
Soft timpani mallet.

(Repeat ad libitum).

L.H. (Repeat ad libitum).

Silently put down bow.