

Colin Riley

# Hanging In The Balance

for 2 pianos, resonating objects and live electronics

1. Ritual Groove
2. Brake, Tackle and Bowl
3. A Scent of an Ending

c 20 mins

Electronic sound design in consultation with James Waterworth.  
Commissioned by Kate Halsall for her Miniature Concertos Project  
with funds provided by the Arts Council of England

## TECHNICAL SETUP

This piece requires 4 percussion objects which make a variety of sounds.

The 'Hanging In The Balance Patch' is also required, running on Ableton Live software.

Other equipment needed: 4 transducers, 4 contact microphones, 6 condenser microphones, sound interface and various leads.

The 2 grand pianos should be placed to the left and right of the stage with the 4 objects/drums on stands spread in front of them. A computer with audio interface connected should be placed in front of the stage or next to the sound engineer. In Piano 1 (stage right) a microphone should be placed to pick up the sound of the instrument and be fed into the computer. 4 contact microphones are also to be placed on specific notes A0, E0, D3, D4 and fed into the computer. In Piano 2 (stage left) another microphone should be placed to pick up the sound of the second instrument. A powered speaker is also placed inside the piano connected to an output on the computer.

Each of the 4 objects should have a microphone placed closely to it, picking up its sound, which is then fed to the computer. A transducer is attached to each object to make it resonate with sound of the live pianos fed via an output from the computer.

All of these audio channels are fed through the audio interface connected to the computer running the 'Hanging In The Balance' Ableton Live set. This set routes the audio from both pianos via the contact and condenser microphones to the transducers attached to the skin of each object at different times in the piece. The induced resonance is then picked up by the object microphones and fed back into the computer for effects processing. During the third movement the captured sounds of movements one and two are fed to the speaker inside Piano 2 to create a feedback loop. A stereo mix consisting of audio from the pianos, audio from the objects and effected audio from the objects is sent from the audio interface attached to the computer to the venue mixing desk and front of house sound system. A feed should also be sent from the mixing desk to the monitor speakers for each pianist.

## Piano preparations

Blutac is to be used to dampen (d) the sound or to create a harmonic (o).  
The dampened sounds are achieved with blutac placed firmly on the string in front of the dampers.  
Harmonics are achieved with blutac placed on the halfway harmonic of the string.  
An extra rattle must be created for the notes marked (x).

The musical score consists of two staves, labeled 'piano 1' and 'piano 2'. Both staves begin with a treble clef and a bass clef, indicating a transposition of one octave. The music is divided into measures by vertical bar lines.

- piano 1:** The first measure contains six eighth-note pairs. The first note of each pair has a 'd/x' (rattle) and a 'd' (dampened) above it. The second note of each pair has a 'd' above it. The second measure begins with a 'sust' (sustained) instruction followed by a bracket covering the next four measures. The notes in this section are: 'd' (dampened), 'd' (dampened), 'd' (dampened), 'd' (dampened), 'd' (dampened), and 'd' (dampened).
- piano 2:** The first measure contains six eighth-note pairs. The first note of each pair has a 'd' above it. The second note of each pair has a 'd' (dampened) above it. The second measure begins with a 'sust' (sustained) instruction followed by a bracket covering the next four measures. The notes in this section are: 'd' (dampened), 'd' (dampened), 'd' (dampened), 'x' (rattle), 'd' (dampened), 'd' (dampened), 'd/x' (rattle), 'd' (dampened), 'o' (harmonic), 'd' (dampened), 'd' (dampened), and 'd' (dampened).

# 1. Ritual Groove

**calm and precise**

$\downarrow = 100$

Ableton Patch 1.

(sounding pitches)

stop harmonics at other divisions of the string  
(ad lib) throughout the movement

Stand playing inside the piano

8

*pianissimo*

*mezzo-forte*

*pianissimo*

13

*mezzo-forte*

*pianissimo*

*pianissimo*

21

*mf*

*pp*

*Rit.*

27

*mf*

*pp*

*Rit.*

33

*p*

40

*plucked*

*mp*

46

mp

mf

51

p

mf

2ed.

mp

57

mf

mf

mf

mf

mf

66

mf

mf

move to the lower outside stool

**a tempo**

Ableton Patch 2.

72

*pp*

pedal (ad lib)

80

*mp*

*8vb*

80

*pp*

*mp*

*8vb*

86

*pp*

*mp*

*8vb*

(8)

94

*pp*

*mp*

*8vb*

(8)

99

pp — p

mp  $\frac{1}{8}v_b$

mp  $\frac{1}{8}v_b$

mp  $\frac{1}{8}v_b$

106

p

p

pp

mp  $\frac{1}{8}v_b$

113

*mp*

*mf*

117

*mf*

*f*

*mf*

*f*

*f*

123

*f*

*ff*

5

*ff*

*fff*

5

130

*f*

5

8

9

8

7

135

*mf*

*mf*

*mp*

*p*

141

*mp*

*p*

*pp*

*mp*

*8vb*

Musical score for orchestra and piano, page 153. The score shows two staves. The top staff is for the piano, starting with a dotted half note followed by a sixteenth-note pattern. The bottom staff is for the orchestra, featuring woodwind entries. Measure 153 ends with a fermata over the piano's eighth-note chord.

157

*pp*

*mp* *8vb*

*pp*

*p* *8vb*

162

*pp*

*p* *8vb*

*p* *8vb*

168

*pp*

*ppp*

*p*

*v*

*8vb*

176

*ppp*

*p*

*v*

*8vb*

**a tempo**

181 Ableton Patch 3.

**181 Ableton Patch 3.**

Dampen the string just behind the dampers:

Thumb stops both Bb and A

Index finger stops the E (and partly the D)

**mf**

**mf**

**mf**

189

**p**

**mf**

**p**

**mf**

**(s)**

197

197

*Ric.*

*mf*

*svb.*

*pp*

*p*

204

*pp*

*mf*

*p*

213

*mf*

220

Musical score for page 220. The top staff consists of three measures in common time (indicated by a '4'). Measure 1 starts with a rest, followed by a dotted half note. Measure 2 starts with a dotted half note. Measure 3 starts with a dotted half note. The bottom staff consists of four measures in common time. Measure 1 starts with a rest, followed by a dotted half note. Measure 2 starts with a dotted half note. Measure 3 starts with a dotted half note. Measure 4 starts with a dotted half note. Dynamics: ***pp*** in measure 1 of the top staff; ***mf*** in measure 1 of the bottom staff; ***p*** in measure 2 of the bottom staff; ***8vb*** in measure 2 of the bottom staff.

227

Musical score for page 227. The top staff consists of five measures in common time. Measure 1 starts with a dotted half note. Measure 2 starts with a dotted half note. Measure 3 starts with a dotted half note. Measure 4 starts with a dotted half note. Measure 5 starts with a dotted half note. Dynamics: ***pp*** in measure 1 of the top staff; ***mf*** in measure 1 of the bottom staff; ***p*** in measure 2 of the bottom staff. The bottom staff has a repeat sign and a circled '(8)' below it, indicating a repeat of the previous section.

236

Musical score for page 236. The top staff consists of five measures in common time. Measure 1 starts with a dotted half note. Measure 2 starts with a dotted half note. Measure 3 starts with a dotted half note. Measure 4 starts with a dotted half note. Measure 5 starts with a dotted half note. Dynamics: ***ppp*** in measure 1 of the top staff; ***p*** in measure 2 of the bottom staff. The bottom staff has a repeat sign and a circled '(8)' below it, indicating a repeat of the previous section. A text instruction **move to the stool of piano 2** is located between the two staves.

## 2. Brake, Tackle and Bowl

$\text{♩} = 120$

with mechanical precision

stop the F (above middle C) with blutac  
on the main harmonic (just for this movement)

Ableton patch 4.

$f$

$f$

246

f

250

f

253

f

257

f mp f

262

*f*

*mp*

*f*

*f*

267

*f*

*mp*

*f*

*f*

*f*

*mp*

*f*

*f*

267

*f*

*mp*

*f*

*f*

Musical score for piano, page 271, measures 1-4. The score consists of two staves. The top staff is in treble clef, 3/4 time, and the bottom staff is in bass clef, 3/4 time. Measure 1: Treble staff has sixteenth-note patterns. Bass staff is silent. Measure 2: Treble staff has eighth-note patterns. Bass staff has a sustained note. Measure 3: Treble staff has eighth-note patterns. Bass staff has a sustained note. Measure 4: Treble staff has eighth-note patterns. Bass staff has a sustained note.

277

2+3

(8) -|

ff

p

ff

ff

sforzando

ff

ff

Musical score for orchestra and piano, page 284, measures 16-21. The score consists of two systems of four staves each. Measure 16 starts with a piano dynamic (p) in 3/4 time. The first system ends with a forte dynamic (ff). Measure 17 begins with a piano dynamic (p) in 3/4 time. The second system ends with a forte dynamic (ff). Measure 18 starts with a piano dynamic (p) in 3/4 time. Measure 19 starts with a piano dynamic (p) in 3/4 time. Measure 20 starts with a piano dynamic (p) in 3/4 time. Measure 21 starts with a piano dynamic (p) in 3/4 time.

Musical score for orchestra and piano, page 291, measures 1-10. The score consists of four staves. The top staff (treble clef) has a dynamic of ***ff***. The second staff (bass clef) has a dynamic of ***p***. The third staff (treble clef) has dynamics of ***ff*** and ***p***. The bottom staff (bass clef) has dynamics of ***ff*** and ***p***. Measure 10 concludes with a dynamic of ***p***.

Musical score for piano, page 10, measures 299-300. The score consists of two systems of music. The top system starts with a dynamic of *p* and a measure of  $\frac{3}{16}$  time. It features a treble clef and a bass clef. Measure 299 ends with a forte dynamic (*ff*) and a measure of  $\frac{2}{4}$  time. Measure 300 begins with a dynamic of *p* and a measure of  $\frac{3}{16}$  time. The bottom system starts with a dynamic of *p* and a measure of  $\frac{9}{16}$  time. It features a treble clef and a bass clef. Measures 299 and 300 end with a dynamic of *ff* and a measure of  $\frac{2}{4}$  time.

2+3

*8va* --- 1

305

2+3

312 2+3

2+3

(8)-----

321

3+3+3

*p*

*p*

*ff*

*8va-----|*

*3+3+3*

*p*

*ff*

*p*

329

2+3

*ff*

*ff*

*ff*

*ff*

*ff*

*p*

*8va-----|*

*2+3*

*ff*

*ff*

*p*

336

*p*

3+2      2+3

*p*

*p*

*8vb*

343

3+2      2+3

(8).....

Musical score for orchestra and piano, page 16, measures 350-355. The score consists of four staves. The top two staves are for the orchestra, featuring woodwind and brass instruments. The bottom two staves are for the piano. Measure 350 starts with a forte dynamic (ff) in 2/4 time. Measure 351 shows a change in instrumentation and dynamics. Measure 352 features a melodic line with grace notes. Measures 353-354 show a continuation of the melodic line with dynamic changes. Measure 355 concludes with a piano dynamic (p). The score includes various time signatures (2/4, 3/4, 8/8, 2/2, 3/2) and key changes.

Musical score for orchestra and piano, page 10, measures 357-360. The score consists of five staves. The top two staves are for the orchestra, featuring woodwind instruments like oboes and bassoons. The bottom three staves are for the piano. Measure 357 starts with a dynamic *p*. Measures 358 and 359 begin with *p*, followed by a measure of *p* with a fermata over the bassoon line. Measures 360 start with *p*, followed by a measure of *p* with a fermata over the bassoon line.

363

ff

2+3

p

2+3

369 3+2

2+3

ff

ff

374 3+2

374 3+2

3+2

379 3+2

384

*ff*

(8)

387

*fff*

*p*

*p*

*3+3+3*

*3+3+3*

*p*

Musical score for orchestra and piano, page 10, measures 1-10. The score consists of five systems of music. The top system features a piano part with dynamic markings *p* and *p*, and an orchestra part with a bassoon part marked *8vb*. The middle system shows a piano part with a dynamic marking *p* and an orchestra part with a bassoon part. The bottom system shows a piano part with a dynamic marking *p* and an orchestra part. Measure 10 includes a tempo marking of  $2+3$ .

406

Musical score page 406. The top staff consists of two systems of music. The first system starts with a bass clef, a common time signature, and a key signature of one flat. It features a dynamic marking *p*. The second system begins with a treble clef, a common time signature, and a key signature of three sharps. The bottom staff also consists of two systems. The first system starts with a bass clef, a common time signature, and a key signature of one flat. It includes a dynamic marking *p* and a tempo instruction *8vb*. The second system begins with a treble clef, a common time signature, and a key signature of three sharps.

412

Musical score page 412. The top staff consists of two systems of music. The first system starts with a treble clef, a common time signature, and a key signature of three sharps. It features a dynamic marking *p*. The second system begins with a bass clef, a common time signature, and a key signature of three sharps. The bottom staff also consists of two systems. The first system starts with a bass clef, a common time signature, and a key signature of one flat. It includes a dynamic marking *p* and a tempo instruction *8vb*. The second system begins with a treble clef, a common time signature, and a key signature of one flat.

420

*pp*

*f*

place your stool on its side, using its weight to depress the sustain pedal continuously

*p*

*ff*

428

*ppp*

*ff*

move back to the lower outside stool of Piano 1

*ff*

*ff*

### 3. A Scent of and Ending

**beautifully poised**

♩ = 100

Ableton patch 5.

Musical score for two staves (treble and bass) in 7/8 time. The top staff uses a treble clef and the bottom staff uses a bass clef. Both staves begin with a dynamic **p**. The music consists of eighth-note pairs. Measure 1 ends with a fermata over the first two notes of the second measure. Measure 2 continues with eighth-note pairs. The score is labeled "Ableton patch 5."

Musical score for orchestra and piano, page 10, measures 446-447. The score consists of two systems of music. The top system is for the orchestra, featuring multiple staves with various instruments. The bottom system is for the piano, indicated by a treble clef and a bass clef. Measure 446 starts with a dynamic of *p* and ends with a measure of rest. Measure 447 begins with a dynamic of *pp*. The score includes instruction markings such as "8va" (octave up) and "riten." (riten.)

Musical score for orchestra and piano, page 154, measures 454-455. The score consists of two systems. The top system features a treble clef, common time, and a key signature of one sharp. It includes parts for strings, woodwinds, and brass. Measure 454 starts with a rest followed by eighth-note patterns. Measure 455 begins with a dynamic *p*, followed by a melodic line with grace notes and a dynamic *pp*. The bottom system features a bass clef, common time, and a key signature of one sharp. It includes parts for double bass and cello. Measure 454 has a dynamic *ppp* and a grace note. Measure 455 continues with a dynamic *ppp*.

465

*sva-*

*p*

*pp*

1

*pp*

1

476

*p*

*pp*

*mp*

*p*

1

*ppp*

*svb-*

1

6

483

*8va-*

*mp*

*mf*

*p*

*p*

*pp*

*8vb*

*mp*

*p*

*pp*

490

*p*

*mp*

*mf*

*mp*

*p*

*mp*

*pp*

*8vb*

*p*

*mp*

498 (8)

*p*

*pp*

*p*

*pp*

9

*p*

*pp*

508 (8)

*pp*

*p*

*pp*

*ppp*

*pp*

(8)

522

*pp*

*pp*

*ppp*

*ppp*

*8vb*

533

*s'va*

*p*

*pp*

*pp*

*pp*

*pp*

541

*s'va*

*pp*

*pp*

*ppp*

*ppp*

*ppp*

*ppp*

*s'vb*

551 (8) *8va* - | *8va* - |

*pp*

*ppp*

(8) *8vb* - | *ppp* *8vb* - |

562 (8) *8va* - | *8va* - |

*pp*

*ppp* *8vb* - |

This musical score page contains two systems of music. The first system, starting at measure 551, consists of two staves. The top staff uses a treble clef and 4/4 time, while the bottom staff uses a bass clef and 4/4 time. The second system, starting at measure 562, also consists of two staves, using the same clefs and time signatures. The music features various dynamics like *pp*, *ppp*, and *8va* (octave up), along with specific velocity markings like *8vb* (octave down). The notation includes eighth-note pairs and bass notes.

(8)

48

9

570 (8) 1

*8va*

*pp*

*ppp*

*pp*

*ppp*

(8)

582 (8)

*pp*

*ppp*

*pp*

*ppp*

*ppp*

*ppp*

