Brian Riordan

Laniakea

2015

for pipa, horn in f, double bass, piano, and laptop
Performance Notes:

The tempo of the entire piece is somewhat flexible. All tempo markings are suggestive. It is preferred that a conductor is not used for the performance.

It is important that the entire ensemble reads from the score.

This symbol is placed above the staff of the instrumentalist that is to make a gestural cue to the rest of the ensemble. Dotted lines are provided through all staves as a warning to the rest of the ensemble that a cue is being made.

In addition to the cues marked in the score, it is encouraged that the performers cue each other throughout the piece. At times, adjustments must be made to either catch up or fall back to stay with the rest of the ensemble.

For graphic notations indicated by zig zag lines, “X’s” or “O’s” on one lined staves, follow the text instructions provided at the time of the graphic notation. Follow the duration as well, but the placement of the graphics are to be loosely interpreted by the performer.

The pipa is tuned, from lowest to highest strings sounding A2, D3, E3, A3. The pipa is notated an octave higher than it sounds. Tablature is provided in some sections when fingering is difficult.

Piano Preparation Notes:

All notes from F3 to E5 are to be prepared by placing a piece of Blue-Tac on a node, located at the octave, completely covering both strings.

Additional Equipment required:

The horn player needs a thin metal sheet, preferably aluminum, that is wide enough to cover the bell of the horn for pages 13 and 14.

The piano player needs a plastic case used for clarinet reeds for pages 6 and 7. A shoe polish brush or a piece of tape to mute the top octave of the strings on pages 13 and 14. Hard marimba or vibraphone mallets are needed for page 17.
Notes for the electronics:

In contrast to earlier electro acoustic music, there are no pre-recorded sounds. There is no tape used in the performance. This brings back the usual flexibility of tempo that is a hallmark of live performance. All electronic sounds are generated in real time by the laptop performer.

An assistant who knows the proper balance between the instruments and sounds produced by the laptop should sit at a mixer in a good listening position in the hall and adjust the volume as necessary throughout the performance. A rehearsed soundcheck should take place without the presence of the audience so the assistant could become familiar with all sounds and balances of the piece.

The ideal sound for optional amplification of instruments is a clear and rich “close” sound. The microphone should be quite near the instrument. The amount of amplification naturally depends on the concert venue, but the amplified sound should be equal to the sounds generated from the Laptop. The general level could be set rather loud, but not painfully so.

Two house speakers should be placed in front of the performers to prevent potential feedback. They should be placed on either side of the performers to project a proper stereo mix to the audience. Generally a monitor speaker should be placed on the floor close to the performers so that they can hear all electronic sounds and optional amplified effects. The soundboard setup should be in front of the speakers located anywhere along the center of the venue so the assistant can mix proper audio levels throughout the performance.

All musicians must sit in a position where eye contact can be made with each member of the ensemble. A performance diagram follows:
Laptop Setup

Equipment needed:

- Macintosh laptop (Macbook) containing at least 2 USB ports and 1 Firewire port (with OS 10.6 or higher)
- Novation Launchpad connected via USB
- Korg Nanokontrol connected via USB
- Audio Interface (such as a MOTU 896HD via firewire) with 2 audio cables sending out Left and Right audio mix to Soundboard

Some software (Max/MSP) is available from the composer.
Additional software (Ableton Live) must be provided by the performer. A template, or set, will be provided by the composer.

A performance diagram for the Laptop Setup follows:
Novation Launchpad:

This device contains a grid of 64 buttons arranged 8 x 8. This piece requires that the grid be divided up into 4 individual “quadrants” of 16 buttons each arranged 4 x 4. Each quadrant is noted 1 through 4 as Q1, Q2, Q3, and Q4 arranged from left to right on the top, and left to right on the bottom.

An image presenting each individual quadrant follows:
Each Quadrant on the Novation Launchpad is divided into 16 buttons arranged 4 x 4 with the letters A, B, C, and D representing the rows, and the numbers 1, 2, 3 and 4 representing the columns.

An image representing the arrangement of buttons within each quadrant follows:
List of Novation Launchpad sounds:

When a button is lit up, that means the corresponding sound is currently sounding. Most sounds turn off when you touch the button a second time.

Q1: A1: Randomized glitch sounds
Q1: A2: Clicking sounds
Q1: A3: Bass Crunch
Q1: A4: Noise Swirl

Q2: A1 and B1: Pipa drones (EP)
Q2: A2, B2, C2: Horn drones (EH)
Q2: A3, and B3: Bass drones (EB)
Q2: A4 and B4: Piano drones (EPf)

Q3: A1, A2, A3, A4, B1, B2, B3, B4: Horn Solo Drones

Important note: unlike other buttons on the launchpad, the buttons in this quadrants do not turn off when you touch the button a second time.

Q3: A3: Horn Drone Off
Korg Nanokontrol:

This device contains many buttons, knobs, and faders. Not all of them will be used for this piece. Located on the left side of the device are several rectangular buttons. They are not notated in the piece itself, but their function is important for the overall usage of the Laptop setup.

The buttons to be used are as follows:

- Press this button to turn all sound “On.” Please press this button prior to performance.

- Press this button to “Mute” all sound. Press this button if desired while performance is not taking place to make sure that no accidental sound is produced.

- This button should only be used in the unlikely event where accidental latency occurs between pressing buttons and sound occurring. This will reset some of the audio settings to get rid of any unwanted latency. This is only to be used in an emergency.

- This button is located right next to 4 separate LEDs. Make sure LED “1” is lit up during performance. If not, press this button until LED “1” is lit. The Korg Nanokontrol will not work properly if any of the other 3 LEDs are lit up.

The volume for various parts of the electronic sounds produced by the Laptop are controlled by various knobs and faders located on the Korg Nanokontrol. Follow crescendos and decrescendos within the score that are listed below the staff to control fader positions. A fader pulled all the way down is mute (marked as a “0”), pulled all the way up is full volume (Marked as a “10”).

Notation for knobs are listed above the staff. A knob all the way to the left is “0” and all way to the right is a “10”.

All fader and knob positions are relative based on balance of ensemble in realtime. Make adjustments during performance if a sound seems too loud, too quiet, or too active.
Korg Nanokontrol Sounds:

Observe the channels of the 9 channels on the image below:

![Image of Korg Nanokontrol](image.png)

Each channel is assigned to a different sound. The faders alter the volume while the knobs alter the sound with an effect. Each channel is linked with a button or a set of buttons of the Novation Launchpad.

Channel 1: Algorithmic cloud
    knob: density and frequency of algorithm

Channel 1: Pipa drone sounds (linked with Q2: A1 and B1)

Channel 2: Horn drone sounds (linked with Q2: A2, B2, and C2)

Channel 3: Bass drone sounds (linked with Q2: A3 and B3)

Channel 4: Piano drone sounds (linked with Q2: A4 and B4)

Channel 5: Solo electric horn (linked with Q3: A1, A2, A3, A4, B1, B2, B3, B4, C1)

Channel 6: Clicking Sounds (linked with Q1: A2)
    Dial: filter sweep

Channel 7: Bass crunch (linked with Q1:A3)

Channel 8: Noise swirl (linked with Q1:A4)
    knob: Intensity
Laniakea
for pipa, horn in F, double bass, piano and laptop

Score

at least c. 120 sec.

Q1
(channel 1)

set dial between 4 and 5

Improvis with dial between 0 and 6, some silence may occur in playback

10 — 5

Pipa

Sparse Random Natural Harmonics

ppp

Keep dial in vicinity of 4, increase and decrease to interact with pipa

Solo, flexible tempo

mute strings

Score

for pipa, horn in F, double bass, piano and laptop

Laniakea
for pipa, horn in F, double bass, piano and laptop

Score

for pipa, horn in F, double bass, piano and laptop

Laniakea
for pipa, horn in F, double bass, piano and laptop

Score

for pipa, horn in F, double bass, piano and laptop

Laniakea
for pipa, horn in F, double bass, piano and laptop

Score
Pipa

L.V.
Slow String Scrape, drag fingers against frets

Keep dial in vicinity of 4, increase and decrease to interact with pipa

Random non pitched muted sounds. Begin sparse, increase frequency

Q1

Pipa

Random non pitched muted sounds. Begin sparse, increase frequency

Q1
Random non pitched muted sounds.
Follow Piano throughout

Pedale sempre until "drastic cutoff" on page 12
Scrape clarinet reed plastic case away from dampers.
Over duration of rhythm, slowly change angle of case from straight up and down to pointing away from you.
* Scrape corner of the clarinet reed
plastic case on pianostrings between
felt and tuning pegs from left to right
(sub ponticello)
Mute with finger
2 inches from dampers
(Continue pedale sempre until “drastic cutoff” on page 12)
irregular (emulate rhythm of E. piano sound)

Ord.

S.P.

ppp

f

irregular (emulate rhythm of E. piano sound)

Ord.

S.P.

ppp

f

pp

f

Ord.

S.P.

ppp

f

Ord.

S.P.

ppp

f

Ord.

S.P.

ppp

f

Ord.

S.P.
Pipa

Horn in F

Double Bass

Piano

Q1: Glitch (channel 6)

Q2: E Bass (Channel 3)

Q3: E Horn (Channel 5)

*(c. 60) rubato*

sparse clicking sounds
(mute strings close to sound board)

progressively more frequent clicking sounds

full stop with metal sheet

sparse clicking sound
(mute strings, highest octave)

progressively more frequent clicking sounds

\[ \text{sparse clicking sounds (mute strings close to sound board)} \]

\[ \text{progressively more frequent clicking sounds} \]

\[ \text{full stop with metal sheet} \]

\[ \text{sparse clicking sound (mute strings, highest octave)} \]

\[ \text{progressively more frequent clicking sounds} \]

\[ \text{full stop with metal sheet} \]
Solo, flexible tempo

Wild glissando

Mute strings at the octave.
Crunch with bow

Mute strings at the octave.

Crunch with bow
increase pressure

accel

pizz.
flip bass around

aggressively crunch bow against back of bass

Channel 7: 10

Channel 8: 0

(p = c. 60)

Roll string with hard mallets inside piano

(f = c. 60)

(f = c. 60)
Piano

Pipa

Pedale sempre

\( q = \frac{c}{60} \)

loco irregular repeated rolling

\( \text{rolling} \)

\( \text{mp} \quad \text{ppp} \quad \text{ppp} \quad \text{mp} \quad \text{ppp} \)
Let Ring. Keep pedal down

Improvise with dial for c. 20 - 120 secs.
Turn off Q1:A1 when finished.
Let sounds ring