

Rela Glass Piece

Terms

P1, P2, P3, P4- Player 1,2,3,4

Panning- Where a sound comes from. This piece is in quad (4 speakers) so there are multiple quadraphonic panners. These will make the sound seem as if it is traveling around the room.

Delay- Echo at a set rate

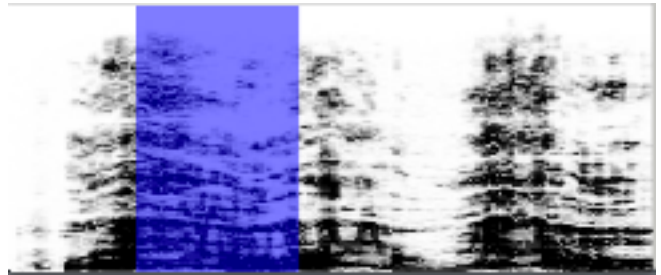
Phase Vocoder (PVOC)- Records and plays back at variable speeds, with variable playback heads, and denoising, without changing pitch.

Playback head size- I call this **Blur**. Altering this creates a smear that sounds a bit like time stretching. Basically it plays all of the notes that are happening within a selected time period. For example it may start by playing the first 2 seconds of recording simultaneously and move this block forward.

Normal Playback head



“Blurred” Playback head



Denoise- This is basically a filter. It decides what frequencies are played. When this is activated it will scoop out different parts of the sound

Degrade- Distortion. Basically at bit crusher or sample rate minimizer.

Frequency Shifter- This will take the input and transpose it by a determined amount. I refer to wide and narrow shifters. This is referring to the range of transposition.

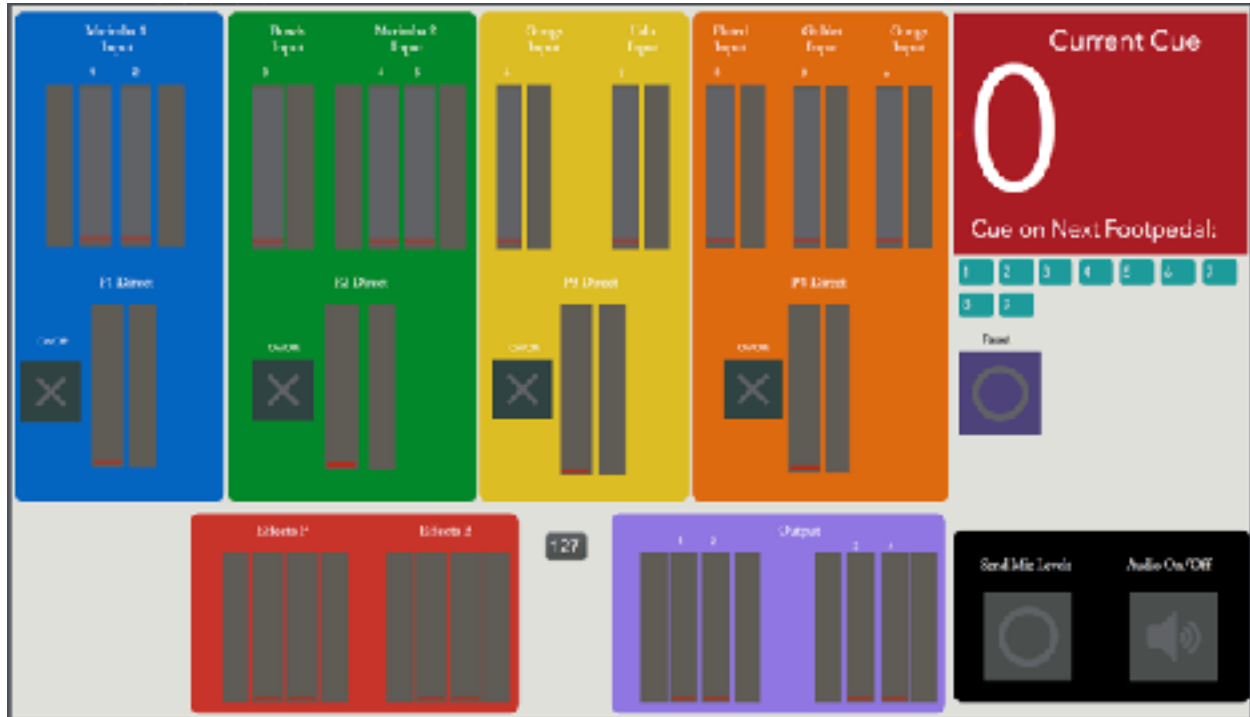
Harmonizer- Adds pitches to the original sound to create chords.

Tremolo- Basically the same as vibrato. Used in this piece in a dubsteppy way to create a pulsing rhythm.

Arpeggiator- This is not necessarily a real arpeggiator. More of a beat repeater. It is a series of delays that create a rhythmic echo. In this piece they are all based on a measure of 16th's at 120BPM. If you know what a slapback echo is, it is kind of like several of those.

Cues- Events that are moved forward by depressing a pedal or pressing spacebar. Cue number is shown in the red box on the User Interface.

User Interface



Mic Inputs

Blue= Player 1, **Green=** Player 2, **Yellow=** Player 3, **Orange=** Player 4

On/Off- Tells whether the mic is on

Sliders (Grey bar with red line)- Adjust levels either automatically or manually. Number above slider is the channel that should be used on interface.

Meters (Grey bar with no line)- Shows live signal levels.

Direct- Shows sound going directly to speakers. If not on signal is going through effects.

Output

Red= Effects, **Purple=** output to speakers.

Effects F- Front, **Effects B-** Back

127- Take effects and output to unity. When performing the computer does this automatically.

Cues

Current Cue- Displays cue number

Teal Numbers- Rehearsal cues. Start at any cue number.

Reset- Press before rehearsal cues to reset effects.

Audio On/Off- White=audio is on, Grey=audio is off.

Send Mic Levels- After setting mic levels press to send these levels to the computer.

Effects

Cue 1

Audio on. Output and effects to unity.

P1 (Marimba), P2 (Bowls), P3 (Gongs) mics ON and levels up.

Cue 2

P1, P2, P3 to long **Reverb** output through front speakers.

Cue 3

P1, P2, P3 to **PVOC**.

PVOC ON, with small blur. Playback through all 4 speakers panned towards rear. **PVOC** creates a time stretched drone using live signals. The **PVOC** records 10 seconds of live signal (from all players) every 30 seconds and replaces the previously recorded sample.

Cue 4

P4 (Fluted) mic ON and sent to **Reverb** and **PVOC**.

Cue 5

P3 (Gongs) mic OFF, **P3 (Udu)** mic ON after 10 seconds.

P1, P2, P3, P4 continue **Reverb** and **PVOC**.

PVOC blur is randomized between medium and small.

Cue 6

P4 (Fluted) mic OFF, **P4 (Goblet)** mic ON after 10 seconds.

P1, P2, P3, P4 live signal to **Reverb** and **PVOC** OFF.

P1, P2, P3, P4 dry signals to randomized **quad-panners** (**P1**-fast, **P2**-slow, **P3**-medium, **P4**-very fast). Dry signal of performers is sent directly to **Panners** instead of through **Reverb**.

PVOC randomly chooses 10 second clips from the previously recorded 4 minutes.

Blur is randomized between very small and very large, **Denoise** is randomized.

After 60 seconds effect fade in

P1- randomized delay

P2- Very wide Frequency shifter, slow moving

P3- Harmonizer- add M2nd above, 20" later add M2nd below, 10" later add P4th above.

P4- Narrow Frequency Shifter, fast moving

Cue 7

P1 effects off.

P2, P3, P4- Dry sounds and panners off. Effects sent to **Reverb** and then to **Tremolo**.

Tremolo is pulsing at 240 (eighth notes at 120).

After 20 seconds PVOC fade out.

Cue 8

Metronome ON (channel 5). **P1** to **Arpeggiator**. Rhythms based on 16th notes at 120BPM.

Arpeggiator Progression

Random rhythm chosen every 4 bars for 4 repetitions (16 bars total)

After 16 bars

Random rhythm chosen every 2 bars for 4 repetitions (8 bars total)

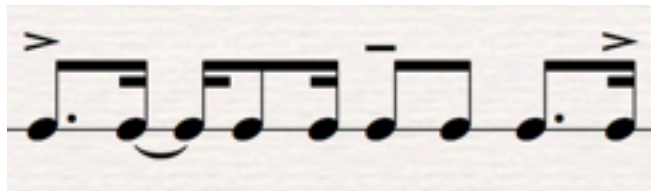
After 8 bars

Random rhythm chosen every bar for 8 repetitions (8 bars total)

After 8 bars

Random rhythm stops and consistent rhythm is locked in

Consistent Arpeggiator Rhythm



32 seconds (16 bars) after cue 8
P2, P3, P4- fade out and mics OFF.

Cue 9

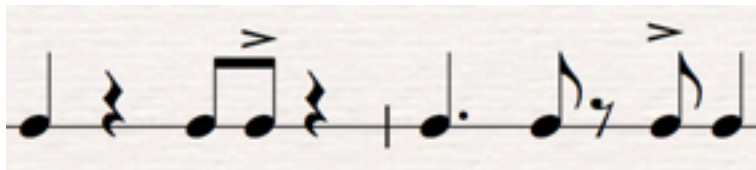
P1- Arpeggiator rhythm stays the same.

P2- dry signal to direct output.

16 bars after cue

P2- to **Arpeggiator** with consistent rhythm. **Degrade** gradually added.

Consistent Arpeggiator Rhythm



24 bars after cue

P4- random **Delay. Panner** sends delays from stage to back wall and returning as if waves of sounds are bouncing back and forth over audience.

Cue 10

Metronome OFF.

P1 and **P2 Arpeggiator** to random **Qaud-Panner** extended Feedback.

P4 Delay waves continue.

After 4 seconds mics turn OFF

After 25 seconds Output and **Audio** turn OFF

Performer Directions

Cue 1

ALL Tacet

Cue 2

P1, P2, P3 Sparse improvisation. Listen to and react to each other and then extend reverb. Generally in mid range of instrument. Can be a few low or high sounds but limit the number and save for later. This way the range expands as the piece progresses.

P1- Tenor Marimba: Bow.

P2- Bowls: Stir or strike with med-soft mallet.

P3- Gongs: Strike with mallets or rub with superball mallet.

P4- Tacet until Cue 4

Cue 3

P1, P2, P3 continue to improvise with slightly more activity. Begin to add more low sounds. Listen to drone created by **PVOC**.

Cue 4

P1, P2, P3 continue to improvise with more activity begin to add more low and high sounds.

P1- Begin to add medium mallet.

P4- Fluted: Medium mallets. Improvise multiple pitches.

Cue 5

All increase activity and volume of improv.

P1- Medium mallets no bow.

P2- chopsticks and/or rubbing with textured triangle beater/ dreadlocks

P3- move to Udu: Hands. Improvise emphasizing low sounds.

P4: Mallet head and shaft. Mostly low notes with mallets, shafts on any pitch.

Expanded range of shafts and low sounds will create a more complex drone in **PVOC**.

Cue 6

P1- Glisses with xylo mallets. Gradually increase activity.

P2- Swirl marbles (or other small hard balls) in various bowls. Experiment with different bowls and marble sizes. Vary speed of spinning. Gradually increase activity.

P3- Swirl marbles (or other small hard balls) in various Udu. Experiment with different Udu and marble sizes. Vary speed of spinning. Gradually increase activity.

P4: Move to Goblet. Swirl marbles (or other small hard balls) in various goblets. Experiment with different goblet and marble sizes. Vary speed of spinning. Gradually increase activity.

At first only dry signal is present but after 60 seconds effects come in.

Vary improv based on what you hear.

Cue 7

P1: Tacet

P2, P3, P4- Continue marbles. Listen to effects and play accordingly.

Cue 8

P1: Medium hard mallets. Follow metronome. For first 32 bars must play very slightly behind beat. If ahead the arpeggiator will not pick up all of the attack and it will sound choppy. After Arpeggiator stays with a consistent rhythm this is no longer a problem. At this point try and play exactly on the beat so your echos line up in time and create stacked chords.

See supplemental notation for general improvisation directions.

P2, P3, P4- continue marbles until effects fade out.

Cue 9

P1- Eighth-note based Improvisation maintaining synchronization with arpeggiator.

P2- Move to Soprano Marimba: Hard mallets. Rest 16 bars and then begin active 16th based improvisation to end.

See supplemental notation for general improvisation directions.

P3- Improvise active accompaniment to P1.

Will get four clicks of metronome on cue and then enter.

P4- Move to Gongs. Rest 24 bars then play whole notes every other measure for 8 measures and then every measure. **See supplemental notation.**

After 32 bars all continue improvising Ad lib until cue 10.

Cue 10 (Final bar)

Metronome OFF.

P1, P2- Play chord on down beat.

P3- strike down beat.

P4- strike on downbeat.

All Let vibrate to end.