

when spoken to in dreams

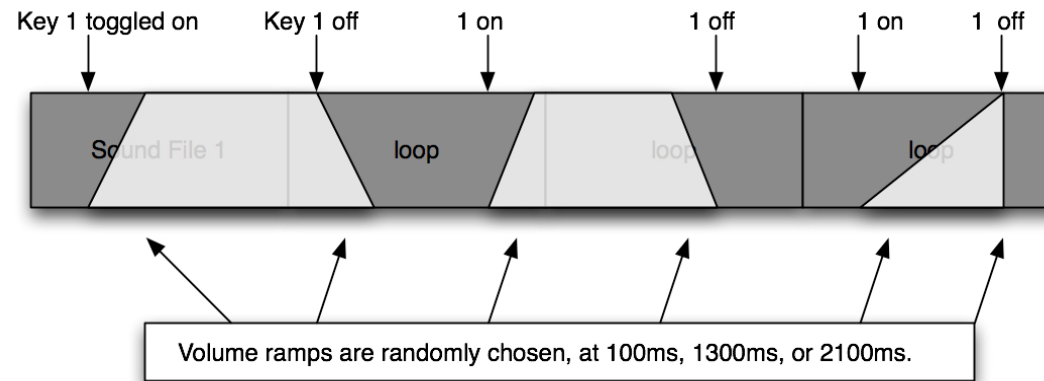
Nathan Bowen

for projected visuals, laptop, recorded cello and voice

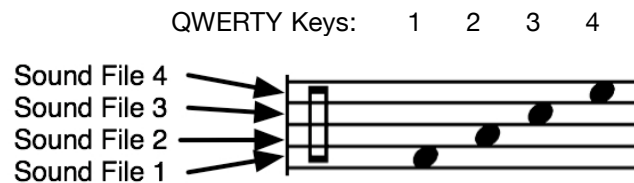
Performance Notes

This piece is composed with Max/MSP/Jitter and is meant for live performance with a laptop and projected visuals. The laptop has the following controls:

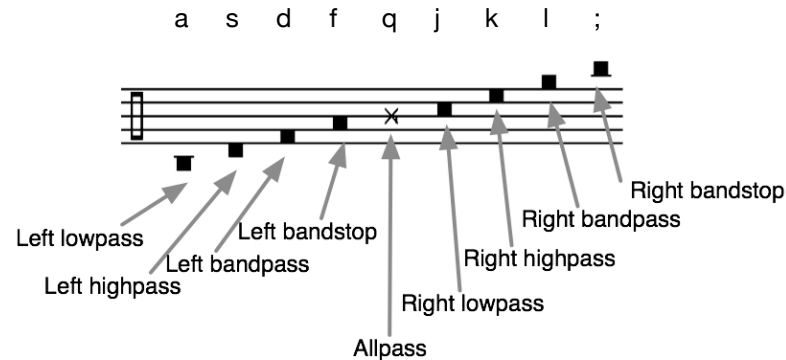
On a QWERTY keyboard, when keys 1, 2, 3, and 4 are first pressed, each key initiates a sound file and a corresponding video clip that will then be looped for the duration of the piece. Each key can toggle off and on, which turns the video clip on or off, as well as the sound file volume:



The performer may improvise, but a suggested set of cues is notated with the following assignments:



Also on the QWERTY keyboard, keys a, s, d, f, j, k, l, q, and ';' control filters that affect all sounds. These likewise are to be improvised but are to be used sparingly. This is the notational assignment:



All other sound files (cello, voice, and drones) are arranged in a fixed state.

Visuals

The visuals will proceed with two layers in chroma key fashion. One layer (rectangles) is an automated process that will generate rectangles whose proportions corresponds to a pixel length or height derived from the Fibonacci sequence (0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 59, etc.). The second layer (which is initiated by the performer with keys 1, 2, 3, and 4 as explained above) will appear as a mask within the framework of the rectangles. The RGB values of the rectangles (between RGB values 0 0 0 and 255 255 255, black to white) will affect the opacity of the masked layer beneath it.

General Notes

This piece has a fixed duration of approximately 11 minutes and 16 seconds. Durations and proportions are calculated to the millisecond and are derived from the Fibonacci sequence. Three improvised sound files are derived from the drones and one from spoken male voice. They are not to be substituted with other sound files. The performer may choose to add different video clips. For all sound files and Max/MSP/Jitter patches, please contact:

Nathan Bowen
nbowen@gmail.com

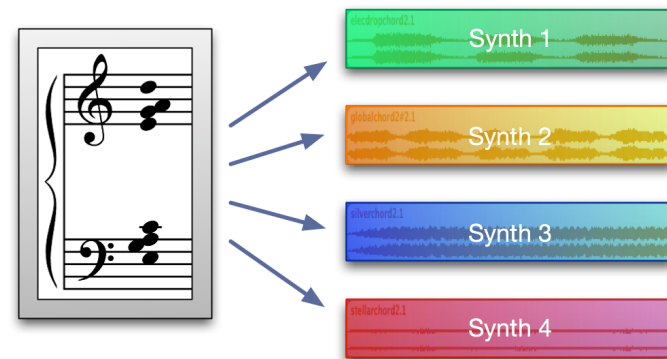
Sound Production Notes for *'when spoken to in dreams'*

Method 1: Creation of 'Drone Chords'

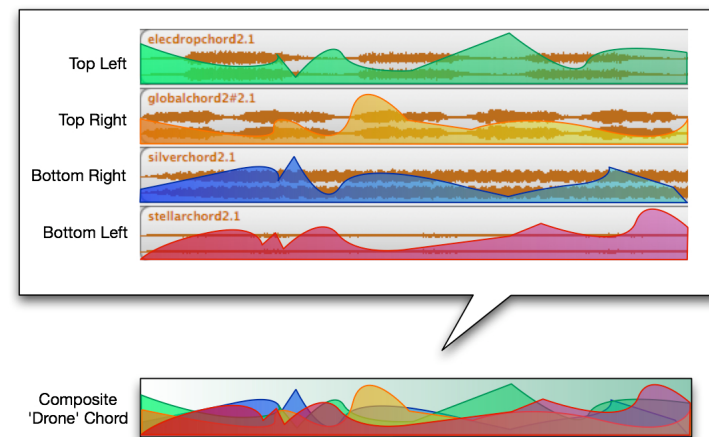
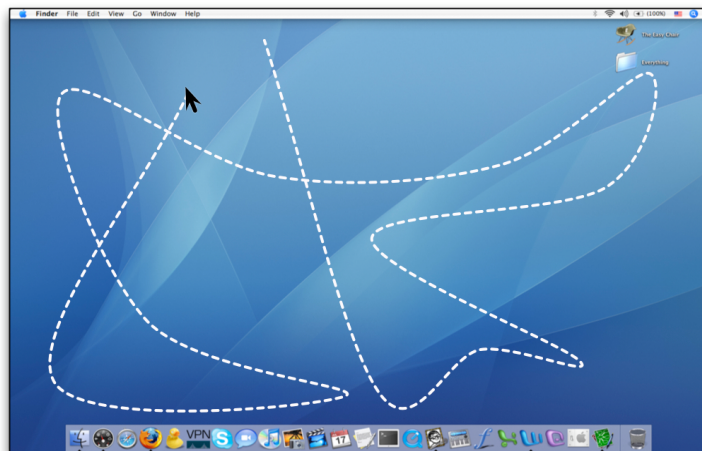
The first stage of preproduction was the creation of sound files to serve as drones for the basic chord progression of the piece. Using recordings of four synth patches each playing the same chords, a recording technique was developed using mousestate values to alter the volume levels of each sound file according to mouse movement.

While playing the four sound files simultaneously, volume faders adjust according to the X & Y coordinates of the mouse. The maximum value of each sound file corresponds to one of the four corners on the screen (X & Y values 0,0; 1440, 0; 1440, 960; 0, 960). While moving the mouse, the volume adjustments to each file are recorded in real time, yielding a sound file composite of the original four files.

Step 1 – Recording a chord with four separate synth patches.



Step 2 – Playing sound files simultaneously, a Max/MSP patch adjusts volume levels according to improvised mouse movement and records it in real time.

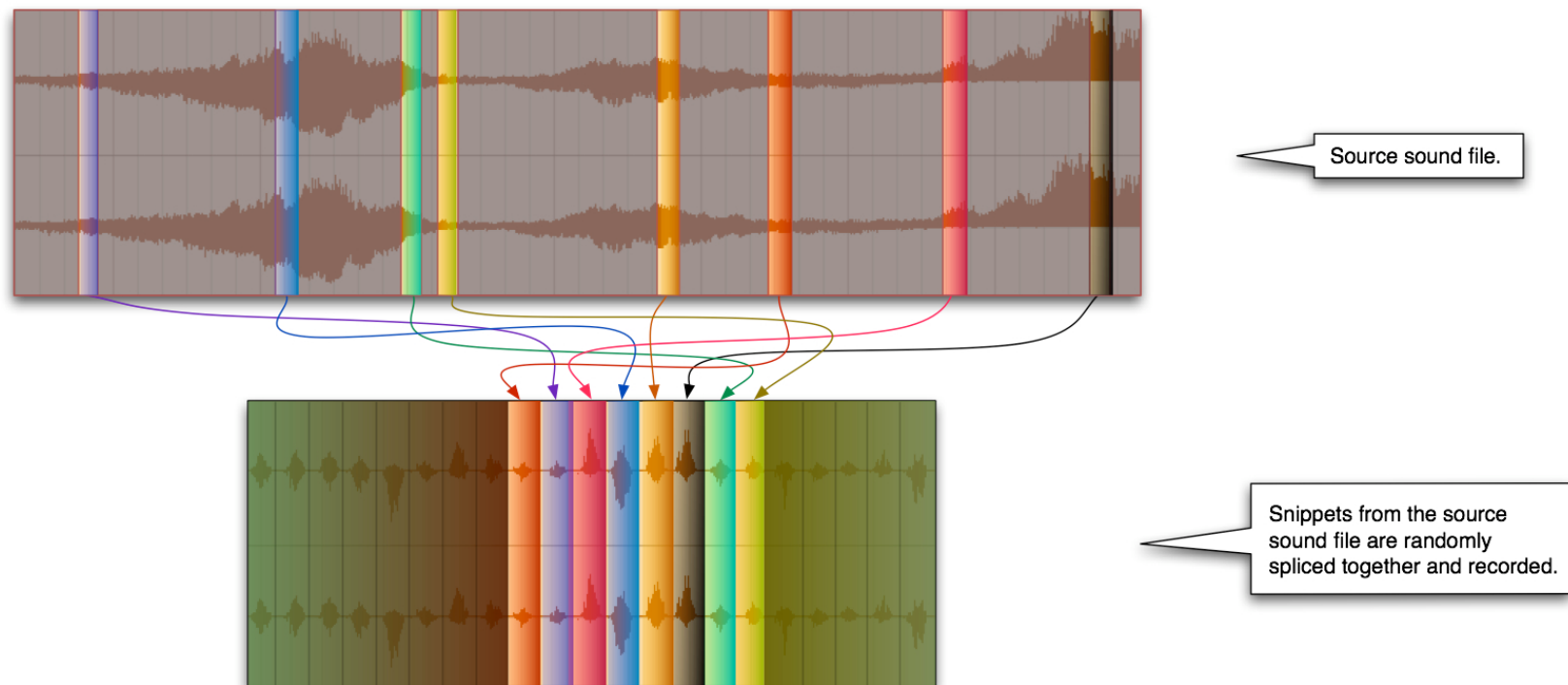


Method 2: Creation of 'Chopped' Sound Files

With the drone files produced, the second stage involved the generation of a secondary set of four sound files, patterned after the rapid volume oscillations scheduled for 6:58 in the piece (at the golden mean). These 'chopped' sound files are meant as a textural contrast to the smooth and gradual changes of the drone chords.

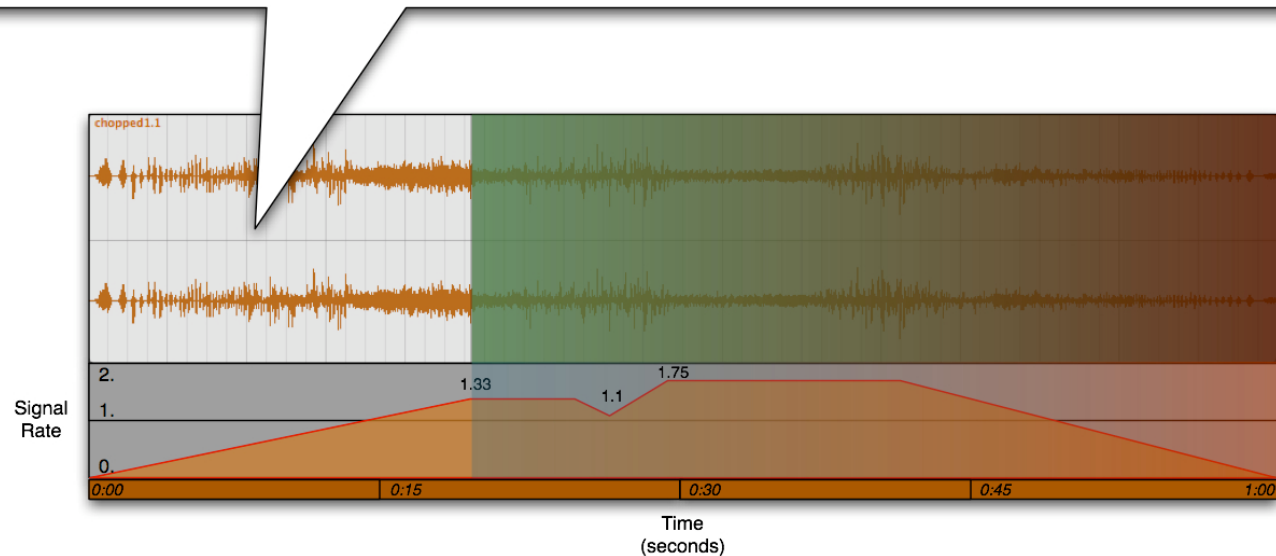
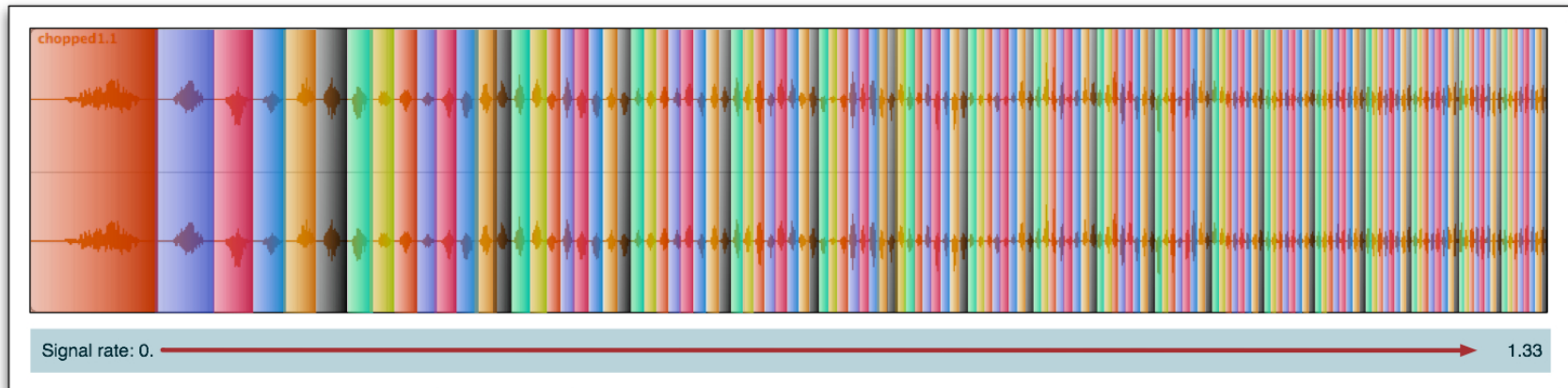
A Max/MSP patch takes a source sound file and randomly splices 100ms snippets together to create a 'chopped' effect. Both the duration of the snippets as well as the durational range from within the source sound file may be altered in real time while recording. A recording of this process yields a new sound file, which is then used in performance. Sound Files 2–4, which are turned on or off by the laptop performer, are derived from the preprogrammed drone chords. Sound File 1 is a chopped derivation of a 30 second sound clip of a male voice reading a text.

Graphic representation of random splicing technique.



Method 3: Signal Rate Alterations of 'Chopped' Sound Files

By altering the signal rate values of sound clips and recording that process, pitch bending and rate of acceleration and deceleration become prominent features of the newly generated content. A signal rate of 1 plays through a sound clip at normal speed. A signal rate of 2 plays it at twice its normal speed, thus changing the pitch to be an octave higher. Starting at a signal rate of zero and increasing to a rate of 1.33 creates a steady glissando in pitch and a sense of acceleration, which is a central durational feature of the piece.



when spoken to in dreams

Nathan Bowen

Score for "when spoken to in dreams" by Nathan Bowen. The score is divided into two main sections: Visuals/Computer Keyboard and Musical Instruments.

Visuals/Computer Keyboard Section:

- Visuals:** Layer 1 (Rectangles) and Layer 2 (Video).
 - Layer 1: Beginning (0:00) rate: 1 rectangle per 23300ms. Beginning RGB: 255 255 255 (white). Target (6:58) rate: 1 rectangle per 10 ms. Target RGB: 100 100 100 (gray).
 - Layer 2: video 1 clip triggered; sound file 1 (30") triggered to loop. video 2 clip triggered; sound file 2 (30") triggered to loop.
- Computer Keyboard:** Sound Files and Filters.

Musical Instruments Section:

- Soprano:** Treble clef, 4/4 time signature.
- Cello 1 (Left pan):** Bass clef, 4/4 time signature. Dynamics: *pp*, *mf*, *p*, *mf*. Markings: *sempre legato*.
- Cello 2 (Center):** Bass clef, 4/4 time signature. Dynamics: *pp*, *mf*, *p*, *mf*. Markings: *sempre legato*.
- Cello 3 (Pan Right):** Bass clef, 4/4 time signature. Dynamics: *pp*, *mf*, *p*, *mf*. Markings: *sempre legato*, *lowpass filter (1000Hz)*.
- Drones:** Treble and Bass clefs, 4/4 time signature. Dynamics: *niente*, *cresc.*
- Lowpass Filter:** (0 Hz).

1:00 1:15 1:30 1:45 2:00

Visuals

Layer 1 20780ms X

Layer 2

video 3 clip triggered; sound file 3 (30") triggered to loop

video 4 clip triggered; sound file 4 (30") triggered to loop

video 2

Comp. Keyb. Snd. Files

Filters

Sop.

Vc. 1 (L)

Vc. 2 (C)

Vc. 3 (R)

1:00 1:15 1:30 1:45 2:00

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

p *mf* *f* *ppmf*

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

Drones

1:00 1:15 1:30 1:45 2:00

f *decresc.*

L.P. Filter

(5000 Hz)

The score is organized into several horizontal tracks. The top section, labeled 'Visuals', contains two layers with video and audio triggers. Layer 1 has a trigger at 1:00 (20780ms) and Layer 2 has triggers at 1:15 (19620ms) and 1:45 (18520ms). Below these are tracks for 'Comp. Keyb. Snd. Files' and 'Filters'. The vocal section includes a 'Sop.' (Soprano) line and three vocal parts: 'Vc. 1 (L)', 'Vc. 2 (C)', and 'Vc. 3 (R)'. These parts feature complex melodic lines with triplets and dynamic markings ranging from *p* (piano) to *f* (forte). The instrumental section includes 'Drones' (two staves) and an 'L.P. Filter' (Low Pass Filter) track. The drone parts consist of sustained chords with dynamic markings like *f* and *decresc.* (decrescendo). The L.P. Filter track shows a frequency response curve that drops off after 1:45, with a label '(5000 Hz)' indicating the cutoff frequency.

Visuals

Layer 1

Layer 2

Comp. Keyb.

Snd. Files

Filters

Sop.

Vc. 1 (L)

Vc. 2 (C)

Vc. 3 (R)

Drones

L.P. Filter

2:00 17490ms X

2:15 16520ms X

2:30 15600ms X

2:45 14730ms X

3:00

video 1

video 2

video 3

video 4

f

pp

ppp

f

pp

ppp

f

ppp

ppp

niente

niente

(200 Hz)

(200 Hz)

The musical score is organized into several horizontal tracks. At the top, the 'Visuals' section contains 'Layer 1' and 'Layer 2'. Below this are 'Comp. Keyb.', 'Snd. Files', and 'Filters'. The 'Sop.' (Soprano) track is a single staff. The 'Vc.' (Violoncello) section includes three staves labeled 'Vc. 1 (L)', 'Vc. 2 (C)', and 'Vc. 3 (R)'. The 'Drones' section consists of two staves. The 'L.P. Filter' track is at the bottom. Time markers are placed at 2:00, 2:15, 2:30, 2:45, and 3:00. Video tracks 'video 1' through 'video 4' are indicated with vertical dashed lines. Dynamic markings such as *f*, *pp*, and *ppp* are used throughout the instrumental parts. The word 'niente' appears above the drone staves. The L.P. Filter track shows two frequency response curves, both labeled '(200 Hz)'.

The musical score is divided into several tracks, each with a timeline from 3:00 to 4:00. The tracks are:

- Visuals:** Layer 1 and Layer 2. Layer 1 has markers at 3:00 (13900ms), 3:15 (13130ms), 3:30 (12400ms), 3:45 (11710ms), and 4:00 (9860ms). Layer 2 has markers for video 1, video 2, vid 3, and video 4.
- Comp. Keyb.:** Snd. Files and Filters.
- Sop.:** Soprano line.
- Vc. 1 (L):** Violoncello 1 (Left), marked *pp* at 3:45.
- Vc. 2 (C):** Violoncello 2 (Center), marked *pp* at 3:45.
- Vc. 3 (R):** Violoncello 3 (Right), marked *pp* at 3:45.
- Drones:** Marked *cresc.* at 3:00 and *mf* at 3:45.
- L.P. Filter:** Low Pass Filter.

The score includes various musical notations such as notes, rests, and dynamic markings. The timeline is marked with time signatures (3:00, 3:15, 3:30, 3:45, 4:00) and specific time values in milliseconds.

(200 Hz)

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5

The score is organized into several sections:

- Visuals:** Includes Layer 1 and Layer 2. Layer 1 has time markers (8790ms, 7840ms, 7400ms, 6990ms, 6600ms, 6230ms, 5890ms, 5560ms, 5250ms) and video annotations (video 3, video 4, video 3, video 2, video 1, video 2, video 4, vid 1). Layer 2 has video annotations (video 3, video 4, video 3, video 2, video 1, video 2, video 4, vid 1).
- Comp. Keyb.:** Includes Snd. Files and Filters.
- Sop.:** Soprano line.
- Vc. 1 (L):** Violoncello 1 (Left).
- Vc. 2 (C):** Violoncello 2 (Center).
- Vc. 3 (R):** Violoncello 3 (Right).
- Drones:** Includes Drones and L.P. Filter.

The score includes time markers (4:00, 4:15, 4:30, 4:45, 5:00) and a frequency marker (200 Hz).

Visuals

Layer 1

Layer 2

Comp. Keyb.

Snd. Files

Filters

Sop.

Vc. 1 (L)

Vc. 2 (C)

Vc. 3 (R)

Drones

L.P. Filter

5:00 4950ms 4680ms 5:15 4420ms 4170ms 3940ms 3720ms 5:30 3510ms 3320ms 3130ms 2960ms 2790ms 5:45 2640ms 2490ms 2350ms 2220ms 2100ms 1980ms 1870ms 1770ms 6:00

v3 v2 v4 v1 video 3 video 1 v3 v2 video 4 vid 3 video 4

pp *mf* *pp* *ppp* *f* *p* *ppp* *mp* *f*

niente *f*

(200 Hz) (6000 Hz)

The musical score is organized into several horizontal tracks. At the top, a 'Visuals' section contains 'Layer 1' and 'Layer 2' with time markers from 5:00 to 6:00. Below this is a 'Comp. Keyb.' section with 'Snd. Files' and 'Filters' tracks. The 'Sop.' (Soprano) track is empty. The 'Vc.' (Violoncello) section includes three tracks: 'Vc. 1 (L)', 'Vc. 2 (C)', and 'Vc. 3 (R)', each with musical notation and dynamic markings like *pp*, *mf*, *ppp*, *f*, and *p*. The 'Drones' section features two staves with sustained notes and the word 'niente'. The 'L.P. Filter' track at the bottom shows a frequency sweep from 200 Hz to 6000 Hz.

6:00 6:15 6:30 6:45 7:00

Visuals
Layer 1
Layer 2
Comp. Keyb.
Snd. Files
Filters

1580ms 1490ms 1400ms 1330ms 1250ms 1190ms 1060ms 1120ms 1000ms less than 1000ms
less than 100ms
Target rate: 10ms
Target RGB: 100 100 100

video 4 video 4 video 4 video 5

Sop.

pan right to 6:30 6:15 6:30 pan left to 6:58 6:45 7:00

Vc. 1 (L) *mp* *mf* *f*

Vc. 2 (C) *mf* *f* *ff*

Vc. 3 (R) pan left to 6:30 *f*

Drones *f* *fff*

L.P. Filter (6000 Hz)

simple
(hum)
p

The musical score is arranged in a multi-track format. At the top, a visual timeline spans from 6:00 to 7:00, with various time markers and a box indicating 'Target rate: 10ms' and 'Target RGB: 100 100 100'. Below this, the 'Visuals' section includes 'Layer 1' and 'Layer 2', with 'video 4' and 'video 5' markers. The 'Comp. Keyb.' section contains 'Snd. Files' and 'Filters'. The vocal section features a Soprano (Sop.) line with a 'simple' ending and a '(hum)' marking. The instrumental section includes three Violoncello parts (Vc. 1 (L), Vc. 2 (C), Vc. 3 (R)) with dynamic markings like *mp*, *mf*, *f*, and *ff*, and pan instructions. The 'Drones' section consists of two staves with sustained chords and dynamic markings *f* and *fff*. The 'L.P. Filter' section is marked with '(6000 Hz)'. The score concludes at 7:00.

7:00 7:15 7:30 7:45 8:00

Visuals
Layer 1 RGB: 0 0 0
Layer 2 (video 5)

Comp. Keyb. Snd. Files
Filters

Sop.

Vc. 1 (L) 7:00 7:15 7:30 7:45 pan center no vibrato 8:00
ppp
no vibrato

Vc. 2 (C) 7:00 7:15 7:30 7:45 pan center no vibrato 8:00
ppp
no vibrato

Vc. 3 (R) 7:00 7:15 7:30 7:45 pan center no vibrato 8:00
ppp
no vibrato

Drones

L.P. Filter

8:00 8:15 8:30 8:45 9:00

Visuals
Layer 1
Layer 2 (video 5) Target (11:16) RGB: 255 255 255 (white) video 2

Comp. Keyb. Snd. Files

Filters

Sop.

3 niente

Vc. 1 (L)

Vc. 2 (C)

Vc. 3 (R)

8:00 8:15 8:30 8:45 9:00

Drones

L.P. Filter

(6000 Hz)

p

p

p

The musical score is presented in a multi-stem format. The top section, labeled 'Visuals', includes two layers: Layer 1 and Layer 2. Layer 2 features video overlays, with 'video 5' spanning from 8:00 to approximately 8:25, and 'video 2' starting at 8:45. A target box for 'Target (11:16) RGB: 255 255 255 (white)' is positioned above Layer 2. Below the visuals are tracks for 'Comp. Keyb. Snd. Files' and 'Filters'. The vocal part, labeled 'Sop.', begins at 8:00 with a melodic line featuring triplets and a 'niente' marking at 8:30. The instrumental section includes three violin parts (Vc. 1 (L), Vc. 2 (C), Vc. 3 (R)) and a drone part. The violin parts start at 8:00 and feature a 'p' (piano) dynamic marking at 9:00. The drone part, labeled 'Drones', starts at 8:00 and features a 'niente' marking at 8:30. A low-pass filter (L.P. Filter) is applied to the drone part, with a cutoff frequency of 6000 Hz indicated at the bottom.

The score is a multi-track musical composition. The top section contains tracks for Visuals (Layer 1, Layer 2), Comp. Keyb. (Snd. Files, Filters), and Sop. (Soprano). The middle section contains tracks for Vc. 1 (L), Vc. 2 (C), and Vc. 3 (R). The bottom section contains tracks for Drones and L.P. Filter. The score is marked with time signatures (9:00, 9:15, 9:30, 9:45, 10:00) and dynamic markings (mf, pp, niente). The Vc. 1 (L) track has a dynamic marking of *mf* at 9:30 and 10:00. The Vc. 2 (C) track has a dynamic marking of *mf* at 9:30 and 10:00. The Vc. 3 (R) track has a dynamic marking of *pp mf* at 9:30 and 10:00. The Drones track has a dynamic marking of *f* at 9:15 and 10:00, and a marking of *niente* at 9:45. The L.P. Filter track is marked with a vertical line at 9:15.

10:00 10:15 10:30 10:45 11:00

Visuals
Layer 1
Layer 2

Comp. Keyb. Snd. Files

Filters

Sop.

Vc. 1 (L)

Vc. 2 (C)

Vc. 3 (R)

Drones

L.P. Filter

video 2 video 3 video 1 video 4

(ooh) *pp* *mp* *pp* *mp* *pp* *mp*

ppp *ppp* *ppp* *pp* *pp*

ff *niente*

(200 Hz)

The musical score is divided into five measures corresponding to time markers 10:00, 10:15, 10:30, 10:45, and 11:00. The top section, 'Visuals', includes 'Layer 1' and 'Layer 2'. 'Layer 2' contains video cues: 'video 2' at 10:00, 'video 3' at 10:15, 'video 1' at 10:30, and 'video 4' at 10:45. Below this is a 'Comp. Keyb. Snd. Files' track with a piano roll showing notes and rests. A 'Filters' track is also present. The vocal parts include a Soprano (Sop.) and three vocalists (Vc. 1 (L), Vc. 2 (C), Vc. 3 (R)). The Soprano part begins at 10:15 with the word '(ooh)' and dynamic markings of *pp* and *mp*. The instrumental parts include three Violoncellos (Vc. 1 (L), Vc. 2 (C), Vc. 3 (R)) and a Drones section. The Vc. parts have dynamic markings of *ppp* and *pp*. The Drones section has dynamic markings of *ff* and *niente*. A 'L.P. Filter' track is at the bottom. A tempo marking of '(200 Hz)' is at the bottom right.

11:00 11:15

Visuals
Layer 1
Layer 2

Comp.
Keyb.
Snd.
Files
Filters

Sop. 1
Sop.
Sop. 3

Vc. 1 (L)
Vc. 2 (C)
Vc. 3 (R)

Drones

L.P. Filter

11:00 11:15

niente niente niente