

Liam Carey

I would go home but my house is on fire

for flute, bass clarinet, violin, cello, piano, percussion and electronics

Liam Carey

I would go home but my house is on fire

for flute, bass clarinet, violin, cello, piano, percussion and electronics

Full score in C

© 2014 Liam Carey, All Rights Reserved

Instrumentation: Flute
Bass Clarinet
Violin
Cello
Piano
Percussion - vibraphone and maracas (2)

Electronics: Computer running Max 6 (or later) and 2 microphones.

The two microphones are for the Bass Clarinet and the Piano. Both need to be sent to the computer and run through the Max patch, the output played through speakers placed within, or close to, the ensemble. Only the effected output from the Max patch is to be played out, no 'dry' mix is required.

The Max patch takes a live reading from the incoming signals which controls the volume of the effects, so as the Piano and the Bass Clarinet play louder, so the effects will also increase in volume. The overall balance of these effects and the live ensemble should be pretty much equal, although at the softest dynamics (*ppp* - *pp*) the effects should be just barely audible behind the live parts, and at the loudest dynamics (*ff*+) the effects should almost drown out the ensemble.

The MaxMSP patch needs to be controlled in realtime using a MIDI keyboard following the cues given in the score.

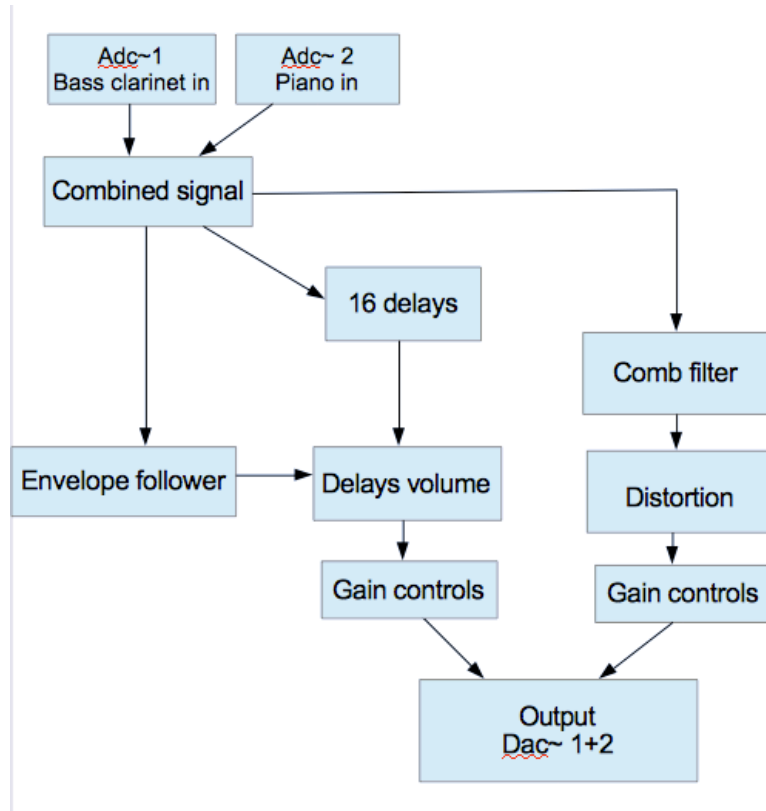
Duration: 6' 20"

Programme Note:

The idea for this piece was to use two different types of dissonance against each other to create an unresolvable contradiction. The first type of dissonance is the harmonic/tonal kind which is created by the electronics using resonant delays to produce a harmonic series of the note D whilst the other instruments move around it creating various degrees of dissonance and tension. The second type of dissonance is timbral, which is created by the electronics adding harsh distortion to the live sounds. This distortion is designed to be frequency selective, so it only happens on the note D and its overtones - the same notes which are produced by the resonant delays. So the result of these two effects, when used together, is that whilst the delays create harmonic/tonal tension and make the live parts want to resolve back to this tonic, the distortion that occurs on these notes makes the live parts want to move away again, and the music is left in an unresolvable situation in which no complete resolution is ever possible.

Liam Carey - *I would go home but my house is on fire*

Max Patch information

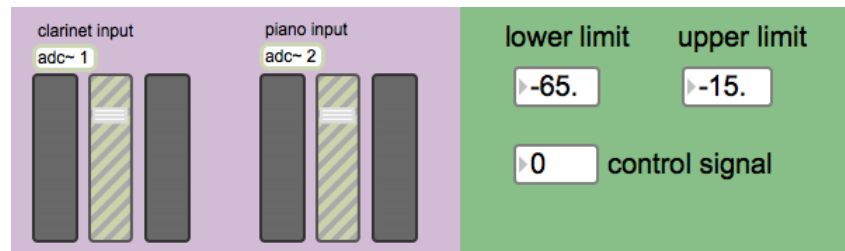


This patch takes two incoming microphone signals, one from the bass clarinet [adc~ 1] and one from the piano [adc~ 2] and runs them through two different effects. The first effect consists of 16 delay with very short delay times (13.62 - 0.45ms) and very high feedback levels. These very high feedback levels make the delay units act as oscillators and so add new frequencies to the incoming audio signal. The delay times of the 16 different delay units are set so that together they produce a harmonic series based on a fundamental D.

The other main effect is a comb filter, the output of which is fed through an [overdrive~] and a [clip~] object. The comb filter is also tuned to a harmonic series on a fundamental D, and so selectively boosts any frequencies in the incoming signal which match this harmonic series. These boosted frequencies are then passed through the [overdrive~] and [clip~] objects and become harshly distorted. The idea is that whilst the 16 oscillating delays

create dissonance and tonal tension which makes the live parts want to resolve back towards the tonic of D, the comb filter/distortion effect conversely creates a harsh distortion on any of these tonic notes, and so make the live parts want to stay away from there, and so creating an unresolvable situation in the music.

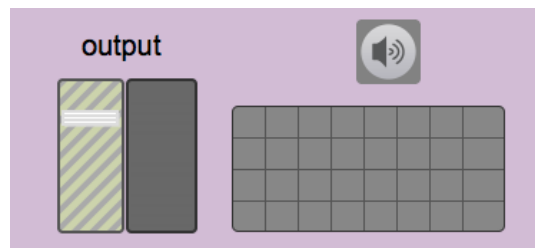
The level of feedback in the delays, and the output volume of the effects is controlled in real-time by a envelope follower that reads the volume of the incoming signal from the clarinet and the piano and uses it to create a control signal, so as the live instruments play louder, the effects also get louder. The controls for this part of the patch are at the top the screen in the max patch:



On the top left (the purple section) are the input controls. Both input channels have a pre-fader [meter~] object on the left to show the initial input level, a fader in the middle to lower or boost the signal if necessary, and a post-fader [meter~] object on the right to show the adjusted input level.

The green section in the middle top of the max patch shows the control signal from the [fiddle~] object. As the playing of the live ensemble changes from soft to loud, so this control signal should range from 0 to 100. Ideally the softest dynamics from the live ensemble (ppp-pp) should register around 0-20 on the control signal, and the loudest dynamics (ff+) should register 80+. The 'upper limit' and 'lower limit' boxes are connected to a [scale] object and they allow you to fine tune the mapping of the input signal to the control signal. I have found that a combination of adjusting the input signals in the purple section and adjusting the lower and upper limit controls in the green section get the best results. Overall the balance of the effects and the live ensemble should be pretty much equal, although at the softest dynamics the effects should be just barely audible behind the live parts, and at the loudest dynamics the effects should almost drown out the ensemble.

The purple section on the top right is the master output:

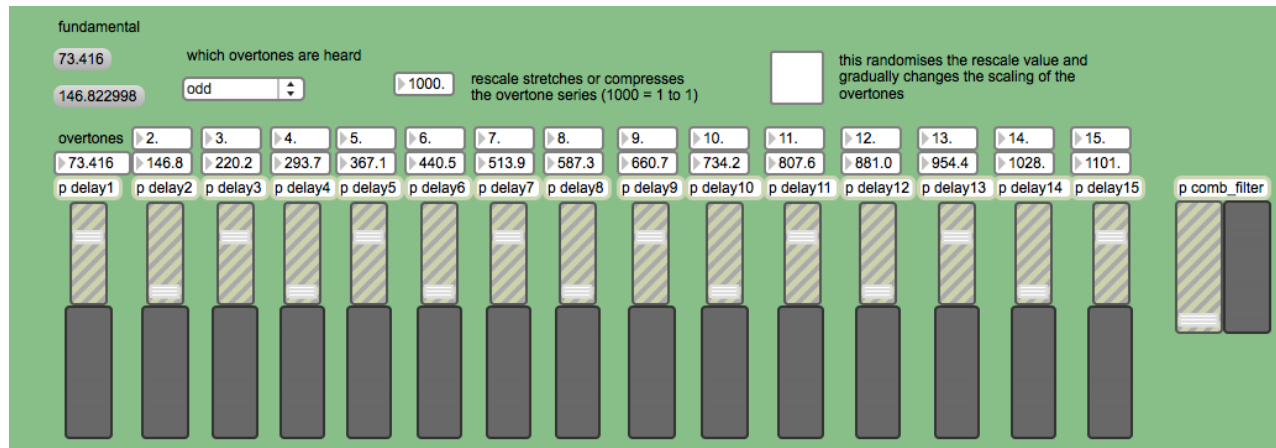


The blue section in the middle of the screen has the controls for the MIDI triggers on the score:



Use the [notein] object to choose your MIDI keyboard. The triggers in the score are set to the notes C4 (middle C), D4, E4 and F4. The reset button is triggered by the note B3 (B just below middle C) – this resets the patch to how it should be at the beginning of the piece and is designed for use in rehearsals. The 'miditest' button, which is triggered by the note A3 (A just below middle C) is there because I know it's easy to lose exactly where middle C is on a MIDI keyboard, and I've always found it useful to have a miditest button to help me find my place.

The green section at the bottom of the screen are the controls for the delays and the comb filter:



It's very unlikely that you will have to control these as they are all automated by the MIDI keyboard triggers on the score. You may possibly want to play with the fader on the comb filter effect, just in case the distortion gets a bit out of control, but to be honest that's very much the kind of sound I'd like from that effect – harsh, noisy fuzz.

Feedback!!!

I've tried this patch out with a couple of practice set ups, and by far the biggest danger is microphone feedback. Careful placement of speakers and choice of microphones (e.g. directional dynamic mics rather than omni condenser mics) make a huge difference. As mentioned before, I'd like as much as possible for the electronics to be equal in level to the live ensemble, but I realise feedback is always something that's best avoided.

I would go home but my house is on fire

Concert Pitch Score

Liam Carey

$\text{♩} = 60$

Bass Clarinet in B \flat

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

cantabile, use the dynamics to gradually bring out the electronic effects

Piano

Ped. hold throughout

Delays

Whistle tone

A

Fl. ¹⁰

p ethereal, far below the B. Cl.

B. Cl.

pp — *f* — *mf*

pp — *f*
with more tension

Vib.

p ethereal, far below the B. Cl.

Red.

Pno.

p ethereal, far below the B. Cl.

Vln.

p ethereal, far below the B. Cl.

Sounds

Vc. ^{7oe}

p ethereal, far below the B. Cl.

19

B. Cl. Flz./growl
ff rough, distorted *mf* suddenly calm

Mrcs. Circular motion
f dense noise, no rhythm To Vib. come off with the B. Cl.

Elec. Delays gliss. gliss. gliss. gliss. Delays gliss.

28

B. Cl. *f* steady, measured

Pno. *pp* very distant, far below the B. Cl.

33

B. Cl.

poco rit.

mf *mp*

Pno.

39 **B**

Pno.

pp extremely gentle

Vln.

pp legato sostenuto, extremely gentle

Vc.

pp legato sostenuto, extremely gentle

Delays

Elec.

Delays change

41

Pno.

Vln.

Vc.



43

Pno.

Vln.

Vc.

with growing urgency

with growing urgency

with growing urgency

45

Fl. *pp*
with growing urgency

Vib. *pp* *with growing urgency*
Ped. - hold until bar 63


Pno.

Vln.

Vc.

47
Fl. 

Vib. 

Pno. 

Vln. 

Vc. 

49

Fl. *and relax* *ppp*

Vib. *and relax* *ppp* let ring

Pno. *and relax* *ppp*

Vln. *and relax*

Vc. *and relax* *ppp*

51

Pno. *extremely gentle again*

Vln. *ppp extremely gentle again*

Vc. *extremely gentle again*



53

Pno. *gradually bring back the urgency*

Vln.

Vc.

55 **C**

Fl. *pp*
gradually bring back the urgency

B. Cl. *pp*

Vib. *gradually bring back the urgency*

Pno.

Vln. *gradually bring back the urgency*

Vc. *gradually bring back the urgency*

57

Fl. *f*

B. Cl. *ff*

Vib. *f*

Pno. *ff*

Vln. *f*

Vc. *f*

59

Fl. *now die away*

B. Cl. *mf*
build to a really raw and powerful sound

Vib. *now die away*

Pno. *now die away*

Vln. *now die away*

Vc. *now die away*

Elec. *Comb filter on*

61

Fl. *niente*

B. Cl. *ff* *fff* 3 *punch out each note*

Vib. *niente* To Mrs. *

Pno. *niente*

Vln. *niente*

Vc. *niente*

63

Fl.

bend with embouchure

pp

fff

B. Cl.

bend with embouchure

Flz./growl

rough, distorted

gliss.

gliss.

gliss.

gliss.

gliss.

gliss.

fff

Mrcs.

Circular motion

z

z

z

z

pp

fff

(solo)

niente

Vln.

bow freely

gliss.

pp

fff

Vc.

bow freely

gliss.

pp

fff

Elec.

Delays lower in volume

71


D **Meno mosso** ♩ = c.54

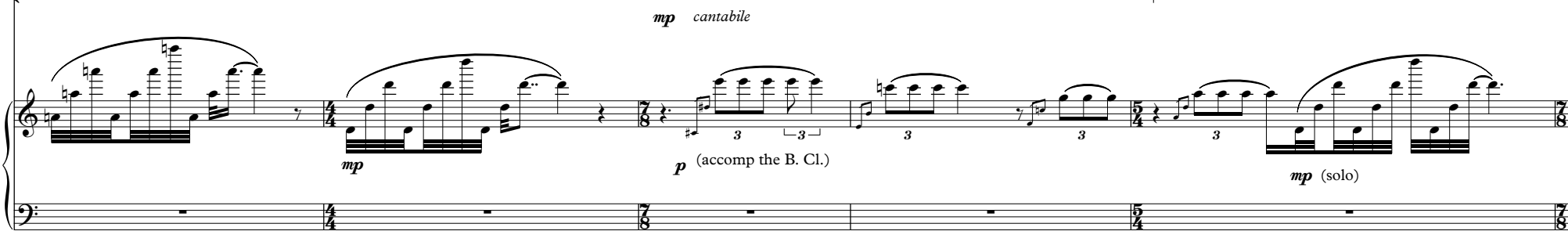
Pno.


mp delicate, molto legato

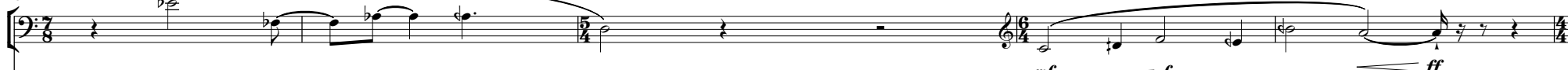
mf just a touch more emphasis

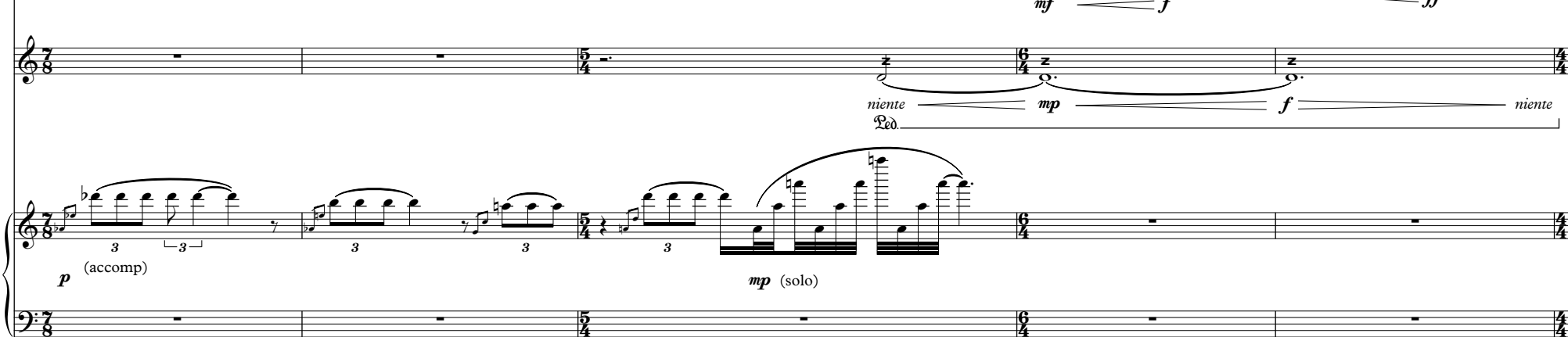
poco rit. **A tempo** (♩ = c.54)

B. Cl. 
mp cantabile

Pno. 
mp *p* (accomp the B. Cl.) *mp* (solo)

B. Cl. 
mf *f* *ff*

Vib. 
niente *mp* *f* *niente*

Pno. 
p (accomp) *mp* (solo)

B. Cl. 
mp *calm, non espress* *p* *mp* *pp*

