Fission

for cello and live electronics

(2009)

David Pocknee

for Jan Willem Troost

Sections and how the electronics will react:

The way the electronics in each section will react depends entirely on what the cellist plays. The score has been written so that certain parameters are left open. These parameters can be used to control the electronics:

A = Gradually increasing distortion
The distortion can be controlled by the amount of noise in the cello e.g. bowing on the bridge will cause more distortion than bowing normale.

B = The cello is split into 8 independent copies of itself whose pitch will move towards whichever note the cello plays.
The louder, lower in pitch, the more times the note is repeated and the closer the cello note and its copy are, the faster the copy will move. It works a bit like gravity. eg. 

C =
The cello is split into 8 independent copies of itself which gradually enter as the section progresses and orbit around the note the cello is playing eg. 
The more noise there is in the cello sound, the larger the orbit

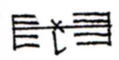
D = Like A but with occassional elements of B&C.

E = same as A

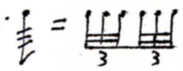
F = same as C

G = same as B

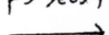
General Notation:

ST = sul tasto
N = normale
SP = sul ponticello
B = on the bridge, creating a pitchless sound.
This is accompanied by a one-line staff and a cross notehead e.g. 

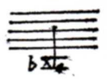
\ = glissando

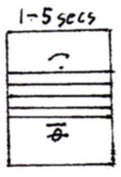
 = tremolo – all tremolos should be in triplets
e.g. 

⌜5 secs⌝ = duration an event should be sustained for

 = gradually change from one element to the next

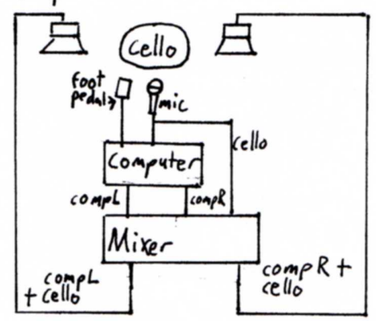
 = Press footswitch to start next section

 = lower pitch should be stopped normally (normal notehead) upper pitch is touched by another finger on the same string with the same pressure as if playing a harmonic (cross notehead) to create a muted sound, as pitchless as possible.



= Note can be sustained for any length of time within the range indicated next to or within the box. During this time the bowing position and dynamics should vary according to the player's reaction to the electronics.

Setup



- A Speaker should be placed either side of the cello
- The cello should control the change of sections using a MIDI Foot pedal.
- The electronics & cello should be mixed so that in sections B & C it is difficult to work out whether the sound through the speakers is real or processed cello.
- The computer should be placed on stage, within reach and sight of the performer so that they can start the program and see the screen for important information during the piece (e.g. the pitch of the electronics.
- The computer should run the MaxMSP patch "Fission.pat-build.exe". Information about how this works is given in the interface of the program.

dp 25/7/09
rev. 16/12/09

Fission

for Cello and electronics
(2009)
for Jan Willem Troost

David Packnee

♩=58
Slow and free

Violoncello

[A] start program wait atleast 1 second, then start playing

+15sec

accel ♩=69

decel ♩=58

as fast as possible

1-10 secs

In this Section, notes outside the boxes should be played as fast as possible.

♩=69

♩=58

[B] 5 secs

Move from left to right across the page by completing the instructions in a box and moving to a box to the right which is connected by an arrow. Each box should last 1-6 seconds and the change between boxes should be abrupt and sudden, except where a glissando between boxes is indicated. Extreme changes of register, dynamic and bowing (eg. XSP, XST, SP, ST) abetween boxes are encouraged and left open to the performer. These choices should be very much influenced by the sounds occuring in the electronics.

+5 seconds

Hold this note:

Until you hear the electronics splitting the cello sound into 8 copies.

Play one of the above notes and try to increase the pitch of the electronics.

Play one of the above notes and try to spread out the range of the electronics.

Play one of the above notes and try to spread out the range of the electronics.

sul I — Play one of the above notes

sul III — Play one of the above notes

gliss

play one of the above notes

Play one of the above notes

Try and move the electronics to the played pitch.

Play one of the notes above and try to spread out the range of the electronics.

Play one of the above notes and try to increase the pitch of the electronics.

sul I — Play one of the above notes.

sul II — Play one of the above notes

sul III — Play one of the above notes

sul IV — Play one of the above notes

Try and move the electronics to the played pitch.

Play one of the above notes

Try and spread the electronics apart

Play one of the above notes

Try and move the electronics to the played pitch

Play one of the above notes

Try and move the electronics to the played pitch

Play one of the above notes and try to spread the electronics out.

♩=58

Slow and free – listen to the electronics

All boxes in this section should be held for 2-5 seconds.

Hold this note until all copies of the cello have returned to this pitch.

C

r8 secs 7 r5 secs 7

mf

2-5secs ♩= 88

2-5secs

2-5secs

2-5secs

D

r5 secs 7 r5 secs 7

*

* -Only click the pedal once you have transitioned completely from the harmonic and play this note as smoothly as possible as the computer will sample and loop 5 seconds of this note from when the pedal is pressed.
Do not continue from this note until you hear the note in the electronics.

Slow and free
♩= 58

1-5secs

accelerando

N →SP →N→ SP→ N→SP → XSP →ST

E

♩= 108 Start metronomic and machine-like and get more free and expressive as the page goes on.

ST

ppp - gradually getting louder over this entire page, reaching fff at the double bar lines

<#>mp <#>mp <#>p

mt

cresc...

(pp)

1-1

cresc...

cresc... (p)

III IV
0 4 3 1

0 3 1 2 1 4-4

2-2 4 1-1

4-4

1-1 3-3

sul III
0 2-1 2-2 3

cresc...

0 2-2 1

sul III II III II
4 0 4 1

IV
2-2 0 2

III II III
4 2 0 4

2 1-1 2

1-1-1 0

(mp)

III II
4 3 1-1

II
2 1-1 4

3 0 1

III II III IV III
4 2 0 4 3 4 1-1 0

cresc...

0 1 2-2

II
2 1-1 2

III III
3 0 1

II III
4 3-3 4

II
1-4-4

(mf)

1-1

I
2-2 0 1

III
4-4

cresc...

0 3-3

4 1 2 3-3

I
2-2 4 1

III
2 1 4-4

2-2

4-4 1-1-1

(f)

cresc...

1-1 2-2

3-3

I
3 1 4-4

1-1

III IV
0 1

I
2-2-2-2

IV
1-1 3 4 1

cresc...

4-4 1-1

4-4 1-1

(ff)

4 1-1 4

0 1-1

III IV
0

3

3

III IV → II III → I II → I

cresc...

F

5-10secs

1-3secs

1-3secs
sul II

1-3secs
sul III

1-3secs
sul IV

5secs

G

H

*Hold this note until you hear the cello note splitting in the electronics and crescendo as the range of the electronics increases. Stop the cello and electronics suddenly and dramatically at the height of the crescendo.