

Esa-Pekka Salonen

CELLO CONCERTO

(2017)

CHESTER MUSIC

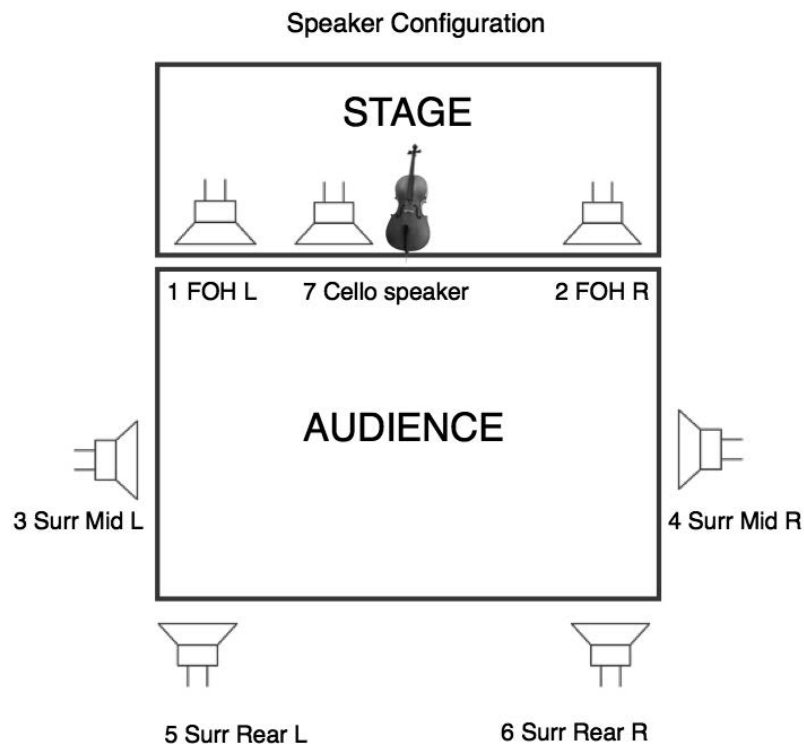
Salonen Cello Concerto Sound Design Description

Sound Designer: Ella Wahlström
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The Salonen cello concerto's sound design uses looping of the solo cello's sound and requires a 7 channel surround system, a microphone for the cello and a looping system.

Surround system

- Output 1 – Front of House LEFT
- Output 2 – Front of House RIGHT
- Output 3 – Surround Mid LEFT
- Output 4 – Surround Mid RIGHT
- Output 5 – Surround Rear LEFT
- Output 6 – Surround Rear RIGHT
- Output 7 – On Stage Cello Speaker



Looping

Looping means that a short recording is played back endlessly repeating until stopped. Looping is used in the second movement 5 times on pages 35 and 36. Each loop should be played back in 6 layers, each layer playing from a different output and changing outputs. All loops finish before the next start. The 5th loops should be saved for the end of the 3rd movement, where they'll be brought back for a short swell in and out.

Loop 1: bar 23

The soloist plays the bar and the loop is recorded. When the loop is complete it's played back from output 7, the cello speaker on stage to create a momentary illusion that the soloist is still playing. Quickly after the first playback loop is started the second should immediately start in output 5, and then the rest of the layers should start one by one, all from their different outputs. Quickly after the loops start playing, the layers should change their respective outputs, moving the layers around the space. Example sequence:

Loop 1, layers A-F

1. Loop 1 is recorded in bar 23
2. 1A (loop 1, layer A) is played from output 7
3. 1B from output 5
4. 1C from output 4
5. 1D from output 1
6. layers move to other outputs:
 - 1A to output 6
 - 1B to output 4
 - 1C to output 3
 - 1D to output 2
7. 1E from output 1
8. 1F from output 7
9. Keep moving the layers around the space until fading out in bar 32

Loop 2: bars 33-35, Loop 3: bar 47, Loop 4: bar 56

Treat like loop 1, but it's not necessary to start in output 7.

Loop 5: bar 59

This is slightly different from the previous; the layers can't be identical loops, as they'll not be the same length. There are 5 glissandos in the bar and the first layer should be played back already during the second glissando. Suggestion is to catch the 1st glissando on layers A and B, 2 glissandos on layer C, 3 glissandos on layer D, 4 glissandos on layer E and 5 glissandos on layer F. The tempo is free for the soloist, so the layers can differ a lot from performance to performance. These layers should also be played back from two separate outputs each, so instead of having 6 layers playing in the space, there should now be 12 and output 7 should not be used anymore. The layers should keep moving around the space until fading out after bar 77, tacet in bar 81.

End of 3rd movement

Play back the layers of loop 5, aim to move the layers around once or twice before fading out. The moving shouldn't affect the overall volume; the swell of sound should fill the space.

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Sound Rider

Sound Designer: Ella Wahlström
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The Salonen cello concerto's sound design uses looping of the solo cello's sound. The looping is processed in a small Mac setup and requires a 7 channel surround system and microphones for the cello and the alto flute.

The surround system should be installed, tuned and any needed delays timed before the orchestra loads in.

The sound control position should be in the auditorium as close to the centre as possible.

Sound system required

PA

- Full range front of house PA to cover the whole auditorium with Left and Right positions and delays as needed. The delays should be timed to the spot speaker next to the cellist. Meyer, d&b or L-Acoustics preferred.
- Full range surround PA with front L - R, mid L - R and rear L - R positions, on all levels if applicable. K array preferred.
- A spot speaker on stage next to the cellist. UPJunior or equivalent point source on an adjustable stand/platform.

Microphones

Cello:

- 2 x Neumann KM 184 mt with a clip and stand (main and a backup)

Alto Flute:

- 1 x Neumann KM 184 mt with a clip and stand

The Computer rack

The Computer rack is available for hire from the sound designer.

- 1 x Mac Mini from 2012 or later, running Mac OS X 10.11 (El Capitan), with 16GB RAM, 256GB SSD, with 21" or larger 1280 resolution widescreen monitor, mouse and keyboard
 - QLab, fully licensed
 - Ableton Live, fully licensed
- powered USB 3 hub with at least 4 slots.
- 1 x Novation Launchpad
- 1 x Behringer BCF2000
- 1 x USB sound card with 2 analogue inputs and 7 analogue output.

Other

In addition to the computer rack specifications above the setup requires a

- USB keyboard
- USB mouse
- 1280 resolution widescreen monitor, with a VGA or HDMI connector and cable (or a mac display connector and cable)

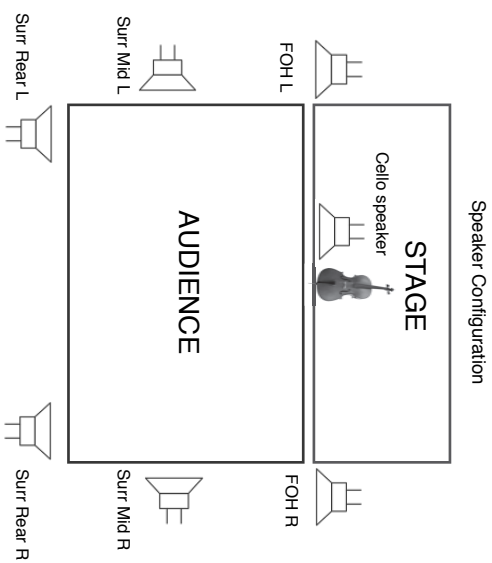
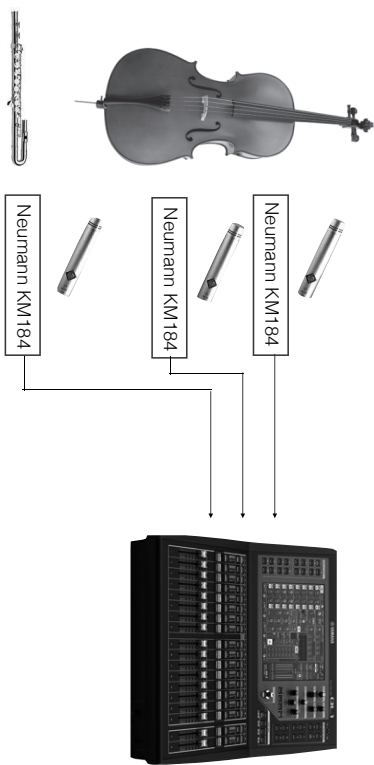
The control position requires

- mains distribution
- 70cm x 150cm table top space facing the stage
- a music stand
- 9 XLR patching cables

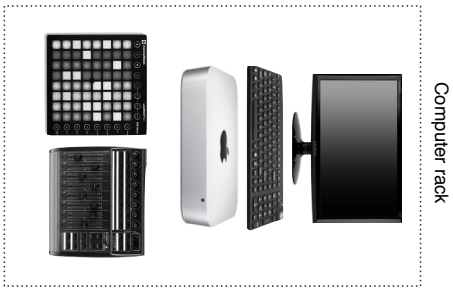
Computer rack patching

The Computer rack takes in 2 signals: cello and alto flute, and sends 7 signals out to be patched to 7 discrete matrixes (all signals are mono).

- The Computer rack inputs, XLR
 - input 1 - cello signal (please have the main/backup switch available on your chosen console)
 - input 2 - alto flute signal
- The Computer rack outputs, XLR
 - output 1 – matrix 1 FOH L
 - output 2 – matrix 2 FOH R
 - output 3 – matrix 3 MID L
 - output 4 – matrix 4 MID R
 - output 5 – matrix 5 REAR L
 - output 6 – matrix 6 REAR R
 - output 7 – matrix 7 STAGE



analogue from the console to the computer rack	
input 1	cello
input 2	alto flute
analogue from the computer rack to the console	
output 1	matrix 1 - FOH L
output 2	matrix 2 - FOH R
output 3	matrix 3 - MID L
output 4	matrix 4 - MID R
output 5	matrix 5 - REAR L
output 6	matrix 6 - REAR R
output 7	matrix 7 - STAGE



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