Twenty Mirrors I
(2016)
for two pianos and live electronics

James Williamson
The first performance was given by Kate Ledger and Mark Hutchinson (University of York Piano Ensemble) and Thomas James (sound engineer), in the Sir Jack Lyons Concert Hall, University of York, 15 June, 2018

Duration ca. 14 minutes
**Twenty Mirrors Electronics**

Parameters indicated on score:

Delay Time  
Delay Feedback  
Delay Volume  
Reverb Time  
Reverb Volume  
Ring Mod Dry/Wet

Pianos to be mic’d up according the engineer’s judgement, with care taken to minimize feedback. All effects are applied equally so separation is not a priority though a close miking technique is advised. The dry piano signal should be amplified only if necessary in the space. Surround speakers may be used if desired, for effects only.

Delay and reverb should be set to 100% wet in two parallel channels, with independent control over their volumes for modulation. Channel volumes should be used to turn effects on/off, with immediate effect unless stated otherwise (e.g. fade out, crescendo etc). Parameter changes are intended as a guide only. Sympathetic and creative response to the performers take priority over exact effect settings.

An analog delay (hardware or software emulation) where real-time modulation of the time parameter produces pitch shifting should be used.

Reverb settings such as size/depth and pre-delay are left to the engineer’s discretion, with the goal of achieving a dense sound with little high frequency content, appropriate for the acoustic space.

- Thomas James [Sound Engineer]
Senza misura

[Allowing delays to build and dicate]...ad libitum.
NB Avoid playing in synchronicity.

Allow delays to finish, then continue.

Senza misura

[Allowing delays to build and dicate]...ad libitum.
NB Avoid playing synchronicity.

Allow delays to finish, then continue.

Feedback 70%
- 300ms

Once piano’s stop, fade out delays gradually over 2-4secs
Silently depress keys. Cluster with forearms.

soz. [until bar 57, beat 1]

Silently depress keys. Cluster with forearms.

soz. [until bar 57, beat 1]
Gradually add sustain ped, as crescendo grows, release when stop playing, but leave the sostenuto pedal down [wait for resonance to die].

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Understated ca. 4=84

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Senza misura (dripping/melting like a Dali painting...)

Play independently
Start very slow, then accel. to as fast as possible, maintaining ppp.

ca. 2 minutes +

- Pitches can be displaced in any octave, ad libitum.
- The pitches of the dyad must be played simultaneously or as a grace note.

Delay time
Smoothly change delay time at random to produce slight pitch shifted feedback (making use of full range over time).

Feedback 80%
Fade delay and reverb

Reverb cont.
A tempo ca. =72

Like bells gently ringing, becoming heavier/closer...

Utility
Feedback 50%
-300ms

Ring Modulation 5%
-800 Hz