A Collection of Three Pieces for Solo Instrument and Electronics

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A COLLECTION OF THREE PIECES FOR SOLO INSTRUMENT AND ELECTRONICS

by

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A thesis submitted to the Graduate College
in partial fulfillment of the requirements
for the degree of Master of Music
School of Music
Western Michigan University
April 2018

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This collection of three musical compositions for solo instruments and electronics explores the interaction between acoustic instruments and electronic media with a specific focus on musical form. The musical form is apparent due to clear musical segmentations, and the coherence of each work is maintained by the inter-contextual relationships evident in the musical material. Each piece is divided into three parts: beginning, middle, and end. Each beginning sets up a strong relationship between the two media by using closely timed action-reaction gestures. The middle section diverges away from these reactionary gestures, while the ending then brings about a short return of earlier material. Both the electronic and acoustic parts adhere to this structure.

Each piece combines live and fixed electronics with a different instrumental type in order to explore the potential relationships between both media. Live electronics process sound in real time whereas fixed media is a combination of set audio files that sound the exact same way each time they are played. “Tangled Illusions” is written for koto, a plucked stringed instrument, and triggered fixed media. “Empyrean Tides” is written for alto flute, a wind instrument, and a combination of predominantly triggered fixed media and live electronic effects. “Learning to Speak” is written for woman’s voice, a vocal instrument, and a combination of predominantly live electronic effects and triggered fixed media.
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Tangled Illusions in a Twisted Dream

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oshide gradually

oshide on 3

oshide on 3
add pitches downward as rapidity increases

scrape along string 6

oshide gradually
palm slaps moving upward in pitch on both sides of the bridges
Empyrean Tides

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Alto Flute

Electronics

[1] 0:13

[2] 0:03

[3] 0:03

[4] 0:10

[5] 0:05

[6] 0:14

[7] 0:18
end delay + reverb
Learning to Speak

Carolyn Borcherding

\[ \text{\textit{Classically sung}} \]

\[ \text{\textit{Flanger: on}} \]

\[ \text{\textit{Time delay: on}} \]

\[ \text{\textit{Voice}} \]

\[ \text{\textit{Elec.}} \]

\[ \text{\textit{Spectral delay: on}} \]

\[ \text{\textit{Spectral delay: off}} \]

\[ \text{\textit{Time delay: off}} \]

\[ \text{\textit{Sound: "yuh gasp"}} \]
You (ou) Need)


[17] time delay: on

[18] time delay: off

[19] flanger: on

[20] flanger: off

[21] sound "sh"

[22] spectral delay: on

[23] time delay: on

sound "gasp"

[24] spectral delay: off

time delay: off

flanger: on