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
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A COLLECTION OF THREE PIECES FOR SOLO INSTRUMENT AND ELECTRONICS

Carolyn Borcherding, M.M.
Western Michigan University, 2018

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.
# TABLE OF CONTENTS

**TANGLED ILLUSIONS**

Score ........................................................................................................................................1

**EMPYREAN TIDES**

Score ........................................................................................................................................12

**LEARNING TO SPEAK**

Score ........................................................................................................................................22
Tangled Illusions in a Twisted Dream

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oshide gradually

oshide on 3

oshide on 3
oshiide

add pitches downward as rapidity increases

oshiide gradually

scrape along string 6

ff

mf

f

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

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[Alto Flute]

[Electronics]

[3]
end delay + reverb


Learning to Speak

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\( \frac{q}{\pi} = 60 \) quick, freely
meek, with nervous energy

Voice

Top

Mid

Bottom

Elec.

[1] spectral delay: on


[3] time delay: on

[4] time delay: off

sound: "yuh gasp"

[5] flanger: on

[6] time delay: on

[7] flanger: off

[8] time delay: off

classically

sung

\( \frac{p}{\text{mp}} \) pp mf

\( \frac{p}{\text{mp}} \) pp mf

\( \frac{p}{\text{mp}} \) pp mf

\( \frac{p}{\text{mp}} \) pp mf
You (ou) Need)

Nee - ? Nee ? Nee ? Nee ?

d d d d Nee d

[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
speak-sung

don't need don't need don't need don't need
incoherent mumble

everly, robotic

sibilant shuffle

sibilant shuffle
duh duh ah! I___
sibilant shuffle
tuh tuh tuh tuh what(t)

sound "hiss"
sound "whispers"

sibilant shuffle

sibilant shuffle

what(t) no(t) t nah ha ha ha sh i d d d don t

flanger: on
whispered
breathy

[35] flanger: off

flanger: off

[36] sound "breath"

[37] distortion: on

a confident laugh
to yourself

[38] distortion: off

distortion: on

distortion: off

[39] time delay: on

whispered
breathy

[40] time delay: off

sound "laughter"

electronics cut off

[41] time delay: on

whispered
breathy

incoherent
mumble

[42] time delay: on

spectral delay: on

[43] time delay: on

sound "crunchy"
faster frenzied
incoherent mumble
shuffle words: am, I, not, say, what, who, you

spectral delay: on
flanger: off
sound "ah!"
distortion increases
time delay: on

with some growling
growl to scream
furiously, shouting

I am not what you say!

Ah, tuh tuh tuh tuh Ah!
I am not I am not I am not Ah

sound "delay laugh"
time delay increases
distortion: off
distortion increases
electronics off