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

Carolyn Borcherding

A thesis submitted to the Graduate College
in partial fulfillment of the requirements
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Thesis Committee:

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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

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EMPYREAN TIDES

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

LEARNING TO SPEAK

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Tangled Illusions in a Twisted Dream

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add pitches downward as rapidity increases

scrape along string 6

oshide gradually

(oshide)

0:24

0:11
126

129 meditatively

145 oshide vib.
palm slaps moving upward in pitch on both sides of the bridges
Empyrean Tides

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end delay + reverb
Learning to Speak

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Tempo: $\approx 60$ quick, freely

Voice:

- Initial dynamics: $pp$ → $p$ → $mp$ → $pp$
- Textural variations:
  - "meek, with nervous energy"
  - "classically sung"
  - "flanger: on" / "flanger: off"
  - "time delay: on" / "time delay: off"

Elec:

- Textural variations:
  - "spectral delay: on" / "spectral delay: off"
  - "sound: "yuh gasp""

Notes:

1. [i] [e] [a] [i] I ? I ? I ? I Yuh!
2. ... Nah ah
3. ... time delay: on
4. ... time delay: off
   - "sound: "yuh gasp"
5. [e] [a] [i] [o] [u] I ? I ? I Yuh!
6. [e] [a] [i] [o] [u] I ? time delay: on
7. ... flanger: off
8. ... time delay: off
don't need don't need don't need don't need

speak-sung

speak forcefully

suddenly act

nervous again

Wait for electronics to fade out completely.

time delay: off

evenly, robotic

growl - - >
labored

sibilant

shuffle

wha(t)

no(t)

nah ha ha ha

I d d d don t

sibilant

shuffle

Am

You

Mm

flanger: on
whispered
breathy

flanger: off

a confident laugh
to yourself
spoken

incoherent
mumble

time delay: on

spectral delay: on

sound "crunchy"
faster frenzied

I am not I am not I am not Ah!

[72] spectral delay: on
[73] flanger: off
distortion increases
[74] time delay: on
spectral delay: off

[75] sound "ah!"
sound "you"
sound "breath"

[76] sound "delay laugh"
time delay increases
distortion: off

[77] distortion: on
[78] sound "gasp"

[79] time delay: off
distortion: off
cut off electronics
distortion: on
[81] distortion increases
electronics off