Two Fragments on Water and Light

For voice and invisible instruments

Thomas Royal

I. Levis Exsurgit Zephyrus
II. Nubibus Atris
Note:

A performance of *Two Fragments on Water and Light* requires the use of additional custom technology in the form of hand-built controllers. Further, a performance of this piece requires the use of a Max/MSP patch. If you are interested in performing this piece, additional resources and information are required. Please contact the composer directly (troyal7563@aol.com or tmroyal@uncg.edu) in order to receive the Max/MSP patch and the instructions on building and connecting the controllers.
Levis Exsurgit Zephirus
for voice and invisible instruments

By Thomas Royal
Levis Exsurgit Zephyrus
for voice and invisible instruments

Levis exsurgit zephyrus
Lightly rises the west wind
Et sol procedit tepidus,
And the sun proceeds tepidly,
Iam terra sinus aperit,
Now the earth bares its breast,
Dulcore suo difluit.
Sweet in its flowing apart.

From Cambridge Songs, No. 40
(Loose literal translation by the composer)

Levis Exsurgit Zephyrus is a piece for solo voice and two performers using controllers built by the composer. One performer plays the Torion Plus and Bls., while the other plays the Lichtflöte and controllers the automated electronics using a foot pedal.

Toriton Plus:
This controller, designed by Sebastian Tomczak at the Electronic Music Unit, Elder Conservatorium of Music, University of Adelaide, consists of bowl or plate of water whose surface is disturbed to produce sound. This might be done by blowing or touching. Generally, this controller is used to control a physical model of wind chimes.¹ The controller might also be used to process other sounds, or to play back the voice in an altered way.

Bls.:
The Bls are made up of four wooden bowls with contact microphones attached to each of them. The sounds of the bowl being struck or scraped are picked up by contact microphones and fed into a banded waveguide model of a bell.² The tuning of the bell is determined in advance, though it changes throughout the piece.

The part is notated on a five line staff. Each of the spaces corresponds to one of the bowls. If bowls of different sizes are used, the largest should be number 1, and the smallest should be number 4. It is notated thus:

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\begin{array}{cccc}
&\text{1} & \text{2} & \text{3} & \text{4} \\
\end{array}
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Note that this does not indicate what sounds are made, but what motions are used to create the sound.

Lichtflöte:
The Lichtflöte is a tube that lights up at one end. It also has three keys at the opposite end. A light source is placed at the other end of the tube. This instrument is used to control a physical model of a flute.³ The wider the mouth is opened, the louder or more intense the sound of the physical model. Pitch is controlled using the keys at the opposite end and the other hand, which covers up the other end of the tube. The choice of pitch is implemented like a brass instrument.

Electronics:
The performer who plays the Lichtflöte is also responsible for pressing the pedal at indicated points. The staff for the electronic part indicates the approximate tuning of the physical models, whether or not a sound is being sampled, various actions taken by the computer, and the routing of sounds into the delay line of various physical models.

Unmeasured, but very slowly, Painfully soft

ppp as faintly as possible

Voice

Toriton Plus

Bls.

Lachtöte

Electronics notes

chimes, blow on the surface of the water
(crescendi indicate breath-speed)

Unmeasured, but very slowly. Painfully soft

with expressive vibrato

accelerating vibrato

voice altered, brisk swish of the water
whispered, without pitch

very freely, sounding embellished

voice altered, brisk swish of the water

very freely, sounding embellished

Levis Exurgit Zephyr
Voice

Tori.

Bls.

Lflt.

Elec.

very freely

with expressive vibrato

accel.

repeat pattern an undetermined number of times

accel.

with voice

- Voice: Jam t e r r a s i n a p e r i t a
- Bls.: Disturb surface of water using a circular motion
- Lft.: Sustain by scraping body of instrument with wood stick
- Elec.: No routing

Tori tuning: indeterminately high frequencies
- Disturb surface of water using a circular motion
- Sustain by scraping body of instrument with wood stick

Pushing forward

High sounding chimes
highest note that can be sung quietly

Voice Tori.

Bls.

Lflt.

Elec.

Lift. and Bls. gradually accel'
both instruments are alligned at first, becoming more independent as they speed up

Voice Tori.

Bls.

Lflt.

Elec.

Voice Tori.

Bls.

Lflt.

Elec.

Voice Tori.

Bls.

Lflt.

Elec.

Voice Tori.

Bls.

Lflt.

Elec.

Voice Tori.

Bls.

Lflt.

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Voice Tori.

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Voice Tori.

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Elec.

Voice Tori.

Bls.

Lflt.

Elec.

Voice Tori.

Bls.

Lflt.

Elec.

Voice Tori.

Bls.

Lflt.

Elec.
Nubibus Atris

Nubibus atri
condita nullum
fundere possunt
sidera lumen.

Si mare volvens
turbidus Auster...

Boethius

The notation and performance methods of *Nubibus Atris* are very similar to *Levis Exsurgit Zephirus*. There are a few important differences.

**Voice:**
There is no indication of pitch given in the score. There are moments when the vocalist is called on to whisper, sing, do both, or even transfer between one method of vocal production to the other. Please follow all performance instructions as given by the score.

**Toriton Plus / Bls.:**
The Bls. are often sent to delays with feedback in this piece, not an organized waveguide. The music should be played in the same way as the previous movement.

**Lichtflöte:**
For the most part, pitch is not indicated for the Lichtflöte. Rather, lines are given to indicate the level a particular hole of the light flute is to be opened or closed. The holes should remain closed throughout the piece unless otherwise indicated. At certain moments, the letters C and O appear. The letter C indicates a hole that is completely closed. The letter O indicates a hole that is completely open. At some places, traditional note heads are given. Produce the sound as done in the first movement, by opening the mouth to play a sound, and closing it to end the sound. Finally, a trill line with a symbol of six circles separated by a slash is a trill indication. Alternate between the two fingerings given by the notation.
Nubibus Atris
for voice and invisible instruments

Hurried, whispered, ametric
with immense quiet energy, whispered

begin this figure when repetitions of voice sound start to decay
very rapidly

both ends are always closed unless indicated otherwise
very slowly from opened to closed

Rapid and violent
semi spoken and whispered

Voice

Toriton Plus

Bls.

Mouth

Lichtflote

Hand

Electronics notes

voice and bls. fed into sub audio delay lines
the length of these delay lines are controlled by hand of flt.

voice delay off

delay lines at sub audio rate
voices and tori fed into reverb, wet mix controlled by lflt.

record voice into buffer
mounted voice used for Tori, granular

bls. delay lines at sub audio rate
flute model near sub audio rate
hand of flute controls delay, lenth of bls and flt.

* kk - create a fricative sound with backed breath
Tori creates chime sound using voice as impulse chime and voice fed into reverb controlled by Lft.
delicately blow on surface of the water

(pitches need not be exact)
subtly, gracefully, molto dolce

G.P.
(rather long, wait until instruments are silenced)

Voice

(pitches need not be exact)
subtly, gracefully, molto dolce

Bls.

(pitches need not be exact)
subtly, gracefully, molto dolce

(pitches need not be exact)
subtly, gracefully, molto dolce

Elec.
(loudly whispered)

(start very slowly)

Voice and bls. fed into sub audio delay lines. The length of these delay lines are controlled by hand of lflt.

Voice and tori fed into reverb, wet mix controlled by lflt. mouth

Shepard Tone bells

very low flute

Shepard Tone bells
transition from whispered to spoken

Voice

Tori.

Bls.

Lflt.

Elec.

\[ \text{transition from whispered to spoken} \]

\[ \text{(si) - - de - ra lu - - - men.} \]

\[ \text{repeat pattern an undetermined number of times} \]

\[ \text{accel.} \]

\[ \text{play this pattern as many times as possible} \]

\[ \text{three glissandi, ad libitum} \]

\[ \text{Bls tuned to inharmonic bells with distortion} \]

\[ \text{Si ma - re vol - vens tur - bi - dus au - ster} \]

\[ \text{spoken, with much energy} \]

\[ \text{(obey spirit of rhythm, not the letter)} \]
very brief pause

whispered, held as long as possible

very rapidly

PEDAL AGAIN WHEN VOICE CUTS OFF

these noteheads indicate sharp attack
slightly sung

\[ fp \]

\[ gliss.,\quad \text{(not too high)} \]

\[ pp \]

\[ gliss. \]

gradually transition from \( f \) to whispered \( u \) to spoken \( u \)

\[ fp \]

\[ pp \]

blow audibly on the surface of the water

disturb surface of water in an irregular manner

distorted bells

remove distortion from bells

\[ \text{Voice, Tori, Lfts., Elec.} \]

\[ \text{Voice, Tori, Lfts., Elec.} \]

\[ \text{Voice, Tori, Lfts., Elec.} \]
Voice

Tori.

Bls.

Lft.

Elec.

- 7 -