

ASHLEY FURE

# Shiver Lung

for Septet and Electronics

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EDITION PETERS

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Soprano 1

Soprano 2

Alto Saxophone

Bassoon

Cello

Percussion 1

Percussion 2

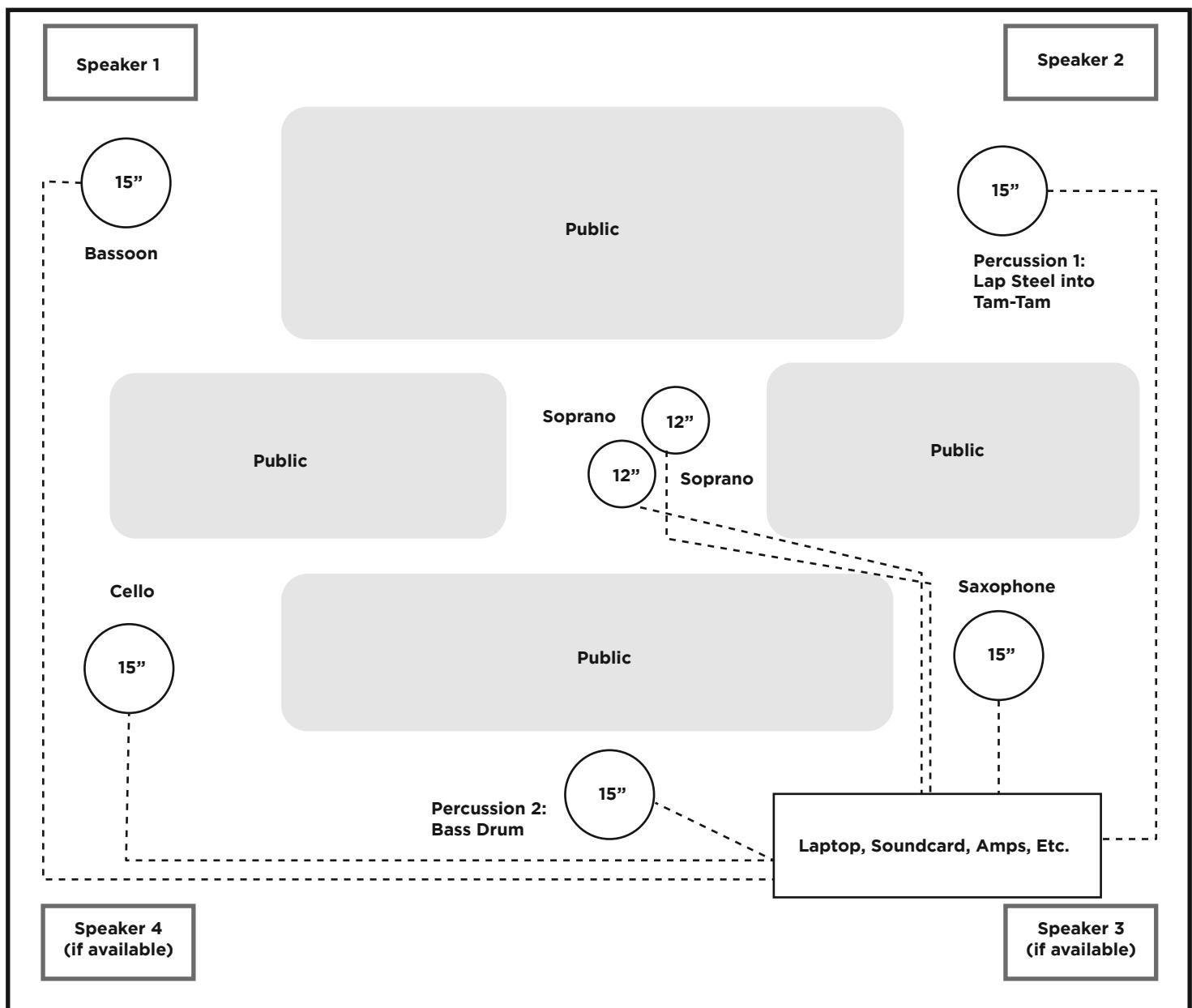
# Shiver Lung

by Ashley Fure  
for Ensemble and Electronics

2 Sopranos, 2 Percussion, Alto Saxophone, Bassoon, Cello, and Electronics

## Spatial Diagram

In addition to their instruments, the ensemble in *Shiver Lung* performs with prepared subwoofer speaker cones (see p. 2). These players are positioned around the audience, with one 15" subwoofer at each station, while the sopranos stand back to back in the center of the public with two 12" subwoofers placed between them. All 7 subwoofers are controlled by Max/MSP and should be routed to the primary soundcard connected to the laptop. The Max/MSP patch will also send out stereo soundfiles, which can be routed to the main house projection system. If a quad setup is available, the stereo soundfiles should be mirrored front and back to more fully envelop the audience. The diagram below roughly follows the original space in which the piece premiered. The placement of the laptop and amps isn't important, as long as there's plenty of speaker wire to route the subs to the soundcard.



**Required technical gear:**

**5** 15" Subwoofer Cones (without cases):



**2** 12" Subwoofer Cones (without cases):



**5** Small 30 Watt Bullhorns:



Amplifiers for each subwoofer:



1 Laptop

1 Soundcard with at least 9 channels of audio

Speaker wire to connect subwoofers to amplifiers

1 *Bass Egg* or bass shaker transducer

### **Instructions for Singers:**

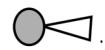
The two female singers stand back to back in the center of the audience and perform their entire part through a bullhorn. Ideally they read from ipads to allow more flexibility with lighting.

### **Bullhorn Technique:**

The Bullhorn should be set at medium volume so as to avoid any distortion. There are two basic textures projected through the bullhorn: unvoiced, aspirated whispers (led by the singers and occasionally doubled by the rest of the ensemble) and sung tones (performed only by the singers).

- Unvoiced, Aspirated Whispers
  - Consonants and vowels should be whispered into the bullhorn from a very close distance – roughly 1/2 an inch away from the microphone.
  - The shape of the mouth should remain slightly open during whispers, as if subtly caught by surprise. Indicated consonants and vowels only slightly alter the shape of the mouth – vocalists should slur each phoneme languidly into the next and avoid clearly enunciating the letters.
  - Symbols pertaining to whispers:
    -  Aspirated inhale with mouth shape of indicated phoneme
    -  Aspirated exhale with mouth shape of indicated phoneme
    -  Glottal consonant produced at the back of throat like a with lips still slightly parted. Neither inhale nor exhale during this gesture.
- Sung Tones
  - Morphing vowels
    - Like the phonemes in the whisper passages, vowels during sung tones should slur and morph languidly into the next. Sharp shifts of mouth shape should be avoided. Singers should focus on exploring how these continuously morphing mouth shapes affect which overtones are most pronounced at a given moment.
  - Pitches between m. 70 and m. 124 should be sung without vibrato.
  - From m. 144 until the end, singers can fade in between straight tone and slight vibrato.

- Symbols pertaining to bullhorn placement:

-  : Bullhorn placed close to mouth, roughly  $\frac{1}{2}$  inch away from microphone, used in unvoiced whisper sections.
-  : Bullhorn placed roughly 6 inches from mouth. Bullhorn should remain still and centered while the head of the singer slowly scans left to right like a searchlight across the audience. When the mouth passes in front of the microphone of the bullhorn, a slight alteration in timbre will be heard.
-  : Both bullhorn and mouth slowly scan left to right like a searchlight across the audience.

#### **Instructions for Subwoofer Speaker Cones:**

In addition to their instruments, the bassoonist, cellist, saxophonist, and two percussionists in *Shiver Lung* play prepared subwoofer speaker cones. These subwoofers oscillate at a sub-harmonic frequency (10.67 hz) that is inaudible to humans until hands and objects are slid across its palpitating surface, producing polyrhythms.

Each of the five perimeter performance areas should be equipped with a subwoofer and the following materials:

- All subs should begin with a piece of 11x17 paper taped to one edge so that it hangs vertically downward, ready to be quickly flipped across the surface of the speaker at m. 65.
- All subs should have a small handful of aquarium gravel in a plastic bag set near them, ready to be quietly inserted at m. 143
- The cello and percussion 1 should additionally each have a 12" half styrofoam ball.
- Both percussionists will use other auxiliary percussion instruments on the subwoofer (see below).

#### Symbols pertaining to speaker cone techniques:

- From m. 4 – 26 the subwoofers are still. Players swipe their fingertips, palms, and fingernails across the surface of the cone to produce softs arcs of white noise hiss.

-  Slide fingertips of both hands in a semi-circle across the cone, avoiding the nipple.
-  Slide palms of both hands in a semi-circle across the cone, avoiding the nipple.
-  Scrape all ten fingernails in a sharp flick across the cone.
- At m. 27 the cones begin vibrating at 10.67 hz.
  -  Slowly slide palms in a straight line from the top of the cone (farthest away from the player) to the bottom (closest).
  -  Let fingernails bounce across the surface of the cone.
  -  Trail fingertips back and forth across the soft rim of the speaker cone.
  - At m. 64, the paper, which had been hanging off the speaker cone, should be quickly flipped up and laid across its surface, producing a rippling white noise.
  - At m. 78 the paper should be un-taped from the cone and held medium taut just a few inches above its surface. The paper is then raised and lowered above the cone according to the indicated graphic, from roughly  $\frac{1}{2}$  inch at its lowest to 6 inches at its highest. Though it never touches the surface of the speaker, the shifting air pressure emerging from the cone causes the ripple of the paper to crescendo and decrescendo.
  - Players reattach their paper and leave it vibrating across the surface of the speaker cone m. 98.
  - From mm. 144 – 177, Percussion 1 and 2 should improvise on the speaker cones with various auxiliary percussion instruments. Explore loud, metallic timbres, using china cymbals and piccolo snare drums to interact with the bouncing gravel and produce shifting chaotic accents in the underlying polyrhythmic pulse.

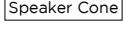
$\text{♩} = 76$

Sop. 1      Slowly raise bullhorn to mouth.    
*s fuh* *mp*      *huh*

Sop. 2      Slowly raise bullhorn to mouth.    
*s fuh* *mp*      *huh*

Sax        *Slide fingers of both hands across the speaker cone to produce a soft, white noise hiss.*  
*mp*  *n*

Basoon        *Slide fingers of both hands across the speaker cone to produce a soft, white noise hiss.*  
*mp*  *n*

Cello        *Slide fingers of both hands across the speaker cone to produce a soft, white noise hiss.*  
*mp*  *n*

Perc. 1       *(mute)*   
*pppp*      *pp*

Perc. 2        *Slide fingers of both hands across the speaker cone to produce a soft, white noise hiss.*  
*mp*  *n*

Electronics        
*(Subwoofers still; no soundfiles)*

