swarms of light in metal

for extended range orchestral bells and electronics

by jeff herriott

swarms of light in metal is composed for extended range orchestral bells (glockenspiel). both the bells and electronics parts are notated one octave below the sounding pitch.

the piece consists of four sections, separated by brief pauses of approximately 10-15 seconds each. these sections coincide with the sectional divisions in the electronics. except for the beginning of section 4, performer begins and ends with the electronics each time. the timings for each section are:

section 1: 0-2:10
section 2: 2:20 -4:50
section 3: 5:04-6:40
section 4: approx. 6:50-9:10 (note that electronics start 25-30 seconds after performer)

these timings are not exact becase the electronic sounds continue to fade through the section divisions and again at the end. more specific details regarding performer and electronics interaction are included on the score.

the electronics consist of a fixed stereo recording made from orchestral bell samples. in performance, it is recommended that there be a smooth balance between the live bells and the electronic sounds. for this reason, it may be necessary to amplify the bells. additionally, an on-stage monitor may be necessary if it is difficult for the performer to hear.

performer may require a stopwatch for rehearsals, but it is not recommended for use in performance.

swarms of light in metal was composed for percussionist trevor saint, for premiere at pasic focus day 2010: ecology of percussion. thanks to trevor for helping to record the samples using his fabulous set of bells.

duration approximately 9:30

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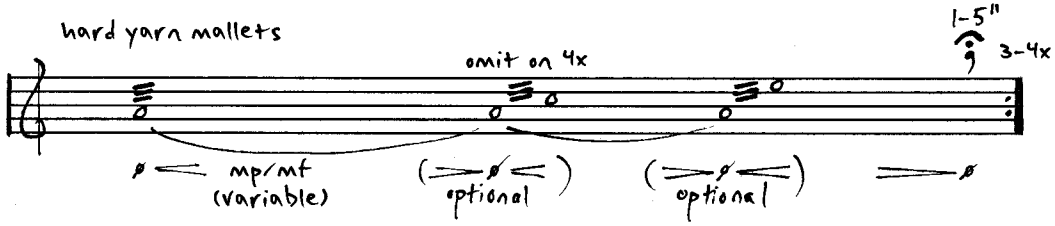
section 1

duration: 2:10
gesture repeats 3-4 times, with changing duration for each repetition (see below for details). durations of the individual notes in the gesture (a/ a-c/ a-e tremolos) are left up to the performer, following the general shape indicated by proportional spacing. (these are not 4-beat whole notes.)

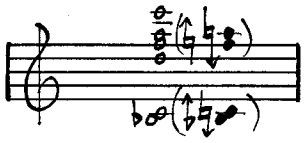
tremolo speed may vary. player should listen to and respond to swells in the electronics, both for dynamics and tremolo speed. tremolo speed will often match dynamic/intensity level but does not have to. (see additional suggestions for each repetition of the gesture below.)

electronic sounds fade in approximately five seconds after starting. performer should quietly enter anytime in these first five seconds.



1x = 55-65 seconds, quiet and somewhat slow
2x = 30-35 seconds, more intense
3x = 20-25 seconds, retreating
4x (if exists)= 15-20 seconds, fading out
(omitting the a-c tremolo)

electronics



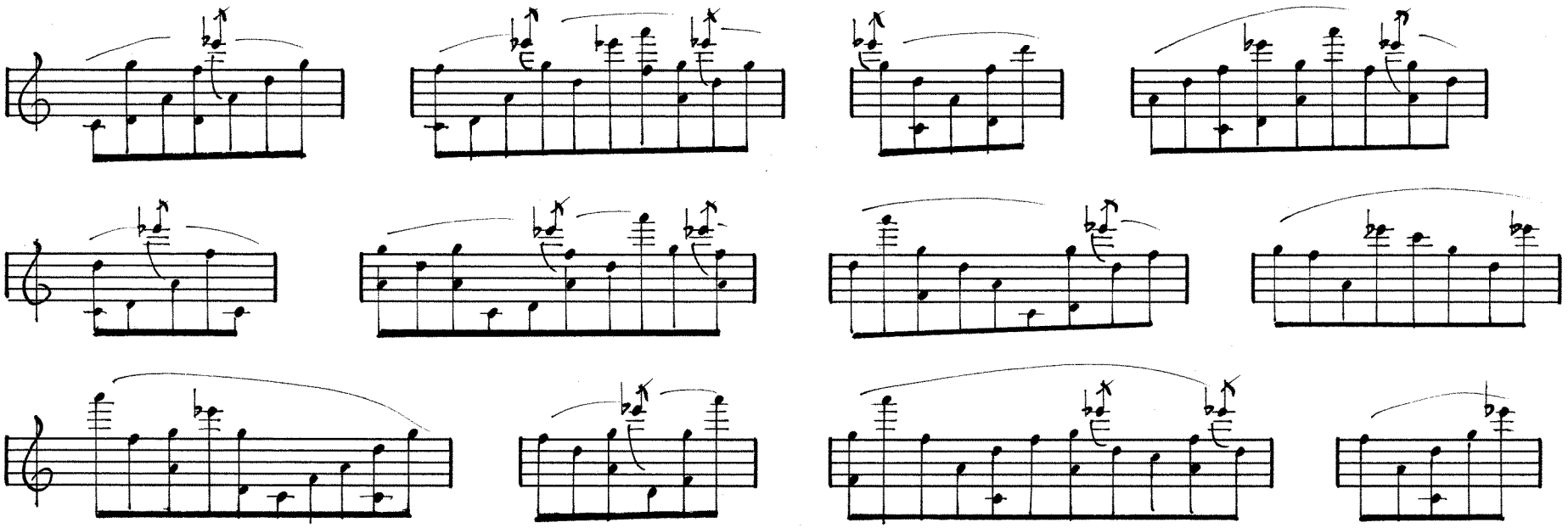
pitches fade in and out and do not enter immediately (some don't sound for nearly a minute). pitches in parenthesis (varied tunings) appear throughout the section.

section 2

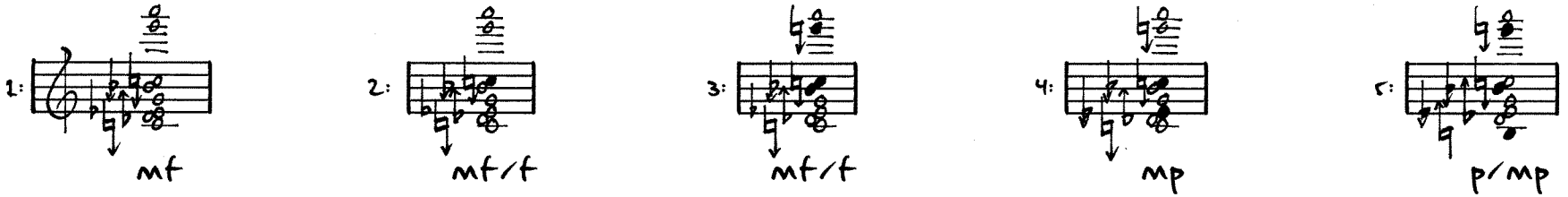
duration: 2:30, in five segments of 25 seconds each, separated by short pauses of 4-7 seconds.
dynamics: variable (see markings below electronics, which indicate general performer dynamics for each segment)

the gestures below can be performed in any order, with 2-4 gestures for each segment. gestures may be repeated, though not immediately. gestures need not be performed in their entirety, but must start from the beginning. performer should pause with the electronics at the end of each segment (does not have to be exact), cutting short a gesture if necessary. these gestures should not be played as strict 1/8 notes. instead, their duration should average to the speed of 1/8 notes, but may vary freely in duration from 1/16 - 1/4 notes (and values in between).

♩=48-56, molto rubato hard yarn mallets plus one rubber mallet for higher pitches

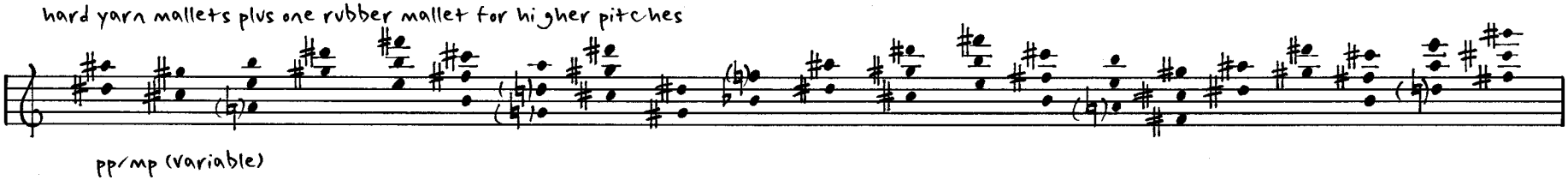


electronics: notes that change from segment to segment are indicated with black noteheads (changes are often subtle).

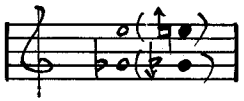


section 3

duration: 1:35
noteheads are provided without rhythmic indication, but should be played in order. performer should group 2-5 notes together into connected gestures, separated by pauses of 6-8 seconds. these gestures should arc, with a gentle ebb and flow, dynamically and rhythmically. individual note durations are up to the performer, with each note between 2.5-5 seconds long. performer should play most or all of the notes, depending on the speed of performance. performer can restart from the beginning if the cycle is completed.



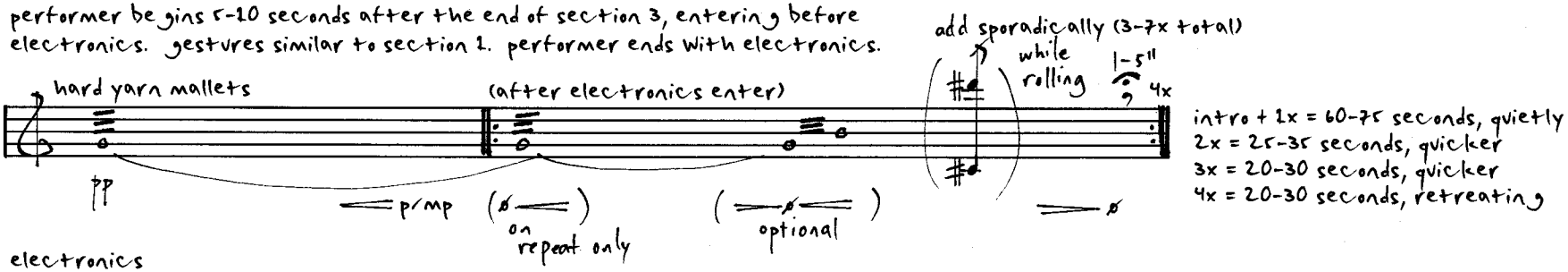
electronics



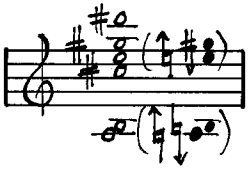
pitches fade in and out and do not enter immediately. pitches in parenthesis (varied tunings) appear throughout the section.

section 4

duration: 2:30 (duration of electronics 1:50)
performer begins 5-10 seconds after the end of section 3, entering before electronics. gestures similar to section 1. performer ends with electronics.



electronics



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program note:
in swarms of light in metal, the interaction between performer and electronics is intended to mirror the interdependence between different elements in an ecosystem. individual components of ecosystems may by themselves seem simple, but the inter-relationships between them are highly complex and infinitely variable. in the same way, this piece focuses on small, subtle sounds and minute variations in timbre, both in the percussion and the electronics. the relationships between these sounds reflect our ecology, as small changes in any part of the piece affect the meaning and significance of the others. *swarms of light in metal* was composed for percussionist trevor saint as part of his quest to commission and present fascinating modern literature for solo bells.

bio:
jeff herriott is a composer and electronic performer who uses recording and computing technology to enhance and augment the natural sounds of instruments, with a goal of creating new and exciting aural spaces.

his works have been performed and commissioned by bass clarinetist michael lowenstern, the electronic hammer, dve east, percussionist greg beyer, clarinetist guido arbonelli, arraymusic, the syracuse society for new music, members of the the knights, and contact contemporary music, and have been heard at a number of different festivals and venues in north america and abroad. his work has been supported by a mata festival commission, an american composers forum commission through the jerome composers commissioning program, a mcknight foundation visiting composer residency, and the american music center composers assistance program. jeff is currently an associate professor of music at the university of wisconsin at whitewater. (http://jeffherriott.com/)