

Ion Trails (Cloud Chamber Storms)

for Percussion (one performer, large battery) and interactive Kyma system

Brian Belet

2012

PROGRAM NOTE:

Ion Trails (Cloud Chamber Storms) was composed in 2012 for Andrew Spencer. The percussion performance drives the live computer-processed sound layers, leaving traces of the original material as it undergoes sonic change and eventual information decay. The score indicates set introductory and concluding gestures, with interior sections containing several related, yet independent gestures. The gestures in a given section may be performed in any order, including repetition and omission. The performer is invited to modify or improvise within any gesture, and to also respond to the computer music as it occurs. The Kyma environment generates real-time modification and resynthesis of the percussion music. Both environments relate to, are affected by, and respond to each other, resulting in a unique realization for each performance.

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PERFORMANCE NOTES:

Percussion:

The percussionist selects the specific instruments for the battery, including a variety of skins, woods, and metals. While the majority of instruments should be of indefinite pitch, pitched instruments may be used if desired, including timpani, vibraphone, marimba, and/or bells.

Since the selection of instruments is left to the performer, the assignment of specific notated gestures to specific instruments is also left entirely to the performer. This permits maximum variety from performance to performance, while maintaining the macro structure of the composition. Even though the orchestration details are left to the performer, the score contains occasional instructions for specific (or at least suggested) instrumentation.

Each performance follows the score in page order. On any given page the gestures may be performed in any order, including repetition and omission. (Note: On page 1 the 'Introduction' gesture is always performed first.) Improvisation is encouraged within any gesture: listen and respond to the computer music, which is different with every performance.

Note the clock time indicated throughout the score. Using a stopwatch in performance, it is important to arrive at these primary time points fairly close to what is indicated. There is some leeway permitted, so absolute precision is not required. The 'Coda' section should start on time, with a target ending time of 10.30 (the computer processing continues to 10.30. so there is a performance time buffer built in).

Each gesture concludes with a double bar. Note that some gestures wrap around into multiple staff systems.

All note values are relative and approximate (with a quarter note approximately equal to 72 bpm). The style is impromptu and spontaneous throughout – a freely evolving dialog with the computer sounds – even while following the score.

The dialog is controlled and led by the percussionist. The computer processing will begin immediately with the initial percussion attack ('Introduction' gesture). All of the computer sounds are real-time processed percussion sounds: there are no stored percussion samples, and all sounds originate with the live performance. As a result, every rehearsal, and every performance, will be unique and different from all other realizations.

The time between gestures is indeterminate. Listen to the computer processing, allow it to have its time in the air. There is no need to fill every sonic moment. Keep an eye on the overall performance time, and push forward or hold back accordingly.

Any note of long duration can be interpreted as a roll, if that is relevant to the instrument at hand.

Kyma processing:

The Kyma TimeLine can accommodate several spatialization schemes and speaker locations, from 2-channel stereo to 8-channel surround sound.

One or more microphones are used to capture the live sound of the percussion battery. The combined audio is sent directly to the Kyma workstation (Pacarana DSP engine and audio interface) as input for real-time processing. The processed output, which includes the unaltered percussion music, is algorithmically diffused to the hall speaker array.