Liquid Folds

By Skewed and Such (Jeff Herriott/Trevor Saint)

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Instrumentation

<u>Percussion</u>
Glockenspiel (extended-range, C5-F8)

<u>Laptop</u>
There are 4 distinct instruments, all of which are performed using Max and a MIDI controller:
2 Buffer players on channels 1-2
1 Analysis/resynthesis instrument (the Fiddler) on channel 3
1 Variable delay + granular synthesis instrument, using Tom Erbe's bubbler+, on channel 4
4 Pitch Shifters on channels 5-8

Structure
Approximate duration 10-15 minutes
<u>Section 1</u>: Dense, shrill, refractive, divergent (2-4 minutes)

<u>Section 2</u>: Stuttering, broken, spasmodic (3-4 minutes)

<u>Section 3</u>: Settled, expansive, breathing (5-7 minutes)

Electronics
Requires one cardiod condenser mic for processing glockenspiel, stereo speaker array, and stage monitor for percussionist.

<u>Laptop Instrument Detail</u>
Sounds can be routed in lots of directions. Most typically, the direct sound can be routed to any of these instruments. Additionally, the Buffer players can be routed to the Fiddler, the Variable delay/ Bubbler, or to the Pitch Shifters. Likewise, the Fiddler can routed to the Pitch Shifters. All of these instruments are run through a variable delay with parameters for feedback and delay time (that can be randomized without changing pitch).

<u>Channels 1-2: Buffer recorders/ players</u>: These two channels are the same. There are 5 buffers (soundfiles) that can be recorded to "Ideas 1-5" and these buffers are shared by both channels. The channels can either be playing the same or different buffers.

Selected buffers will appear in the buffer players, wherein portions of the files can be selected for playback in different ways - looped, at different speeds, backwards, with randomized pauses, and jumping around at randomized sizes within specified ranges. The buffers can also be convolved with a range of soundfiles available for cross-synthesis.

<u>Channel 3: Fiddler player</u>: This instrument listens to incoming signals from the live instrument or from the buffer players and performs an analysis/resynthesis. It can either store "captures" that can be replayed at any time, or it immediately processes and resynthesizes the captures. These are run through an ADSR with a range of options. Additional variables include randomized pauses, randomized envelopes, and pattern storage/recall. The instrument is routed through a delay-based "V-spreader" that minutely adjusts pitch to make it feel less synthetic, though it can also simply be used for wild pitch shift and feedback.

<u>Channel 4: Variable Delay/ Bubbler</u>: This instrument includes a variable delay on an individual channel so that it can more easily be added to the direct sound with a slider. It also blends with a granular instrument, using Tom Erbe's bubbler+, that has a range of controls for live granular synthesis. This can be routed through the Fiddler's V-spreader (see above).

<u>Channels 5-8: Pitch Shifters</u>: These instruments take the output of any of the other instruments to change pitch. They can also add a delay before processing.

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glockenspiel

Section 1

With light brass mallets, improvise rapid sweeps/clusters (glissandi) between F7-F8 with both hands simultaneously, in opposite direction (examples below), intercut with silence. Addition of other techniques (i.e. deadstick, single attacks) is permitted, providing they sympathize with the laptop.
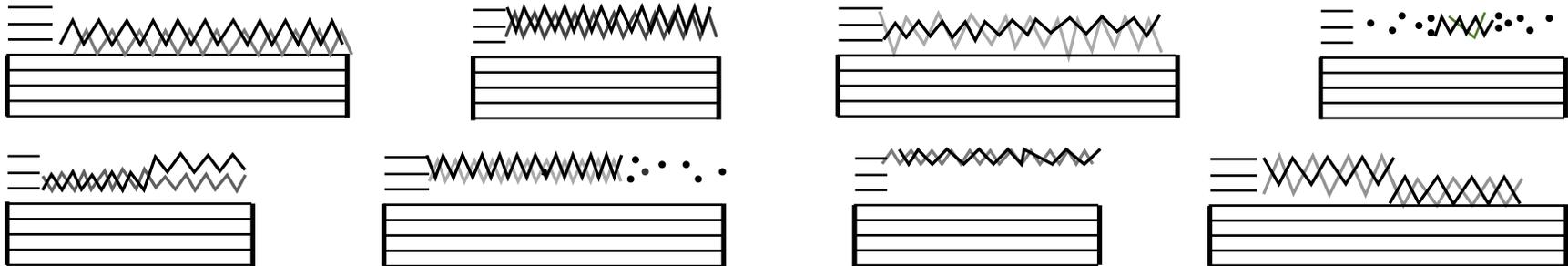
Section 2

Strike three single D7 notes with rubber mallet (●), allowing 3-5 seconds of silence after each strike, enabling laptop to capture each note.
To bridge sections 1 and 2, remnants of Section 1 are permitted between each of the first three D7's, after 3-5 seconds of silence.
Improvise arrhythmic variations between brass mallet (•), rubber mallet (●), and bow (▲), varying standard and muted attacks.
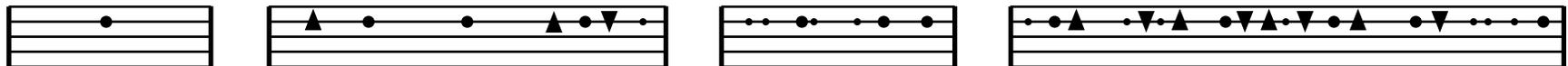
Section 3

With heavy medium mallet, alternate semi-regular strikes between A5 and F5 (approx. 3-6 seconds), then transition from struck to bowed notes. The A5-to-F5 gesture becomes C5/A5-to-D5/F5. Improvise bowed material around the C5/A5-to-D5/F5 gesture; complete tonal departure is permitted.

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Section 1

Preset "Scene 1" on Max patch. Bring in variable delay on channels 1-2.

Fiddler (preset to play instrument with typing): Improvise with percussionist, starting dynamic barely underneath. Use less Fiddler as section progresses. Use no variable delay at first, but feel free to add later.

Pitch Shifters: Enter after using Fiddler for a while. Bring in to enhance, widen, and vary pitch of live glockenspiel.

Bufplayers: Record sound from glock to "Idea 1" and "Idea 2". Playback buffers as desired as section progresses. Later, route sound of Bufplayers through Pitch Shifters instead of direct sound. Use variable delay as desired.

Variable Delay/Bubbler: Bring in if desired to widen/ extend sound.

Section 2

Bufplayers: Record single notes at start of section from live glock on "Idea 3", "Idea 4", or "Idea 5". Play them back through randomized, jumping playback, with short durations (approx 200 ms). If desired, record and play new buffer of more active glock material later in section.

Fiddler: Change to "Scene 2" before using. Bring in as desired to fill out sound (preset to direct player from live glock).

Variable Delay/Bubbler: Bring in as desired to fill out sound (direct player from live glock)

Pitch Shifters: Set channels 7-8 to +500 and +700 cents in preparation for section 3.

Section 3

Pitch Shifters: Bring up channels 7-8 (set to +500 and +700 cents) with glock "A5-F5" gesture at start of section. Leave on throughout.

Bufplayers: Begin by continuing playback from previous section. Record and play new buffers later in section (use same playback settings). Fade down Bufplayers some time after material has been routed through Variable Delay/Bubbler (see below).

Fiddler: Bring in as desired to fill out sound (direct player from live glock).

Variable Delay/Bubbler: Bring in as desired to fill out sound (direct player from live glockenspiel) As section progresses, switch input to Bufplayers and play with Bubbler feedback.

Program Note
Our music is developed jointly through rehearsal and experimentation. The specifics change for each piece, though the general outline is the same – one of us gets excited about some new idea or sound, and after sharing it with the other in rehearsal, we jointly develop it into some sort of form. *Liquid Folds* is the first piece we co-composed, and it grew primarily out of the fact that we both love the sound of bowed glockenspiel.

Skewed and Such
Skewed and Such performs original, semi-improvisational works for glockenspiel, resonant metals, and electronics that focus on real-time exchanges between instrumental and computer performers. Their co-composed pieces utilize simple pre-compositional structures, which allow for extensive interplay between the performers; in particular, this approach allows both Trevor and Jeff to explore subtle details within a single sound or musical idea, a concept that is central to their individual careers and has united their work as a duo. Skewed and Such has released two albums, *Brittle Edges* EP and *Suspended Dreamers* EP2, both of which are available at https://skewedandsuch.bandcamp.com.

Percussionist Trevor Saint has commissioned and premiered the first solo works for the extended-range glockenspiel. He also performs in a range of improvisational projects, most recently with Skøefst, Minor Vices, and the Great Lakes Improvising Orchestra. (http://trevorsaint.net/)

Composer and laptop performer Jeff Herriott creates music that is focused on small, subtle sounds and minute variations in timbre, with slow-moving shapes that shift and bend. His work has been supported by grants and commissions from the MATA Festival, the Barlow Endowment for Music Composition, the McKnight Foundation, the American Music Center, Meet the Composer, and the American Composers Forum. (http://jeffherriott.com)