Resonant Paths

Scott McLaughlin 2017

For suspended metal found objects, and live electronics (contact Scott for MAX patch)
c.10–15mins, but can be longer for installation contexts

Materials and setup:

- 5–10 different* metal objects that are each a single piece of metal (no rattling parts), and have properties of length and resonance; such as pipes, tyre irons, and spanners. Length is required so the striking pattern can explore different contact/mute points; round/flat objects can be tried but for this piece long objects worked best for me.
    - * The differences should be quite subtle but still across a range, it's best to avoid a very wide range of registers or types, see 'performance' below.
- Suspend the objects from a rack or similar using thread. Objects should all be reachable without performer moving their feet significantly, but not so close together that they hit each other if they swing from a hard strike.
- Place one or more microphones so that they feed the sound of the objects into the electronics patch.
- Place electronics footswitch somewhere you can reach from any object.
- Output of patch can route to a mono or stereo setup placed very near to the metal objects so that the electronic/acoustic sounds blend.

Performance:

- Structurally, the piece is a loose exploration of the different harmonics contained within each metal object. Aim to find correspondences between the objects by exploring them using the technique below. Us the electronics to capture and sustain specific harmonics.
- Harmonic technique:

    - With one finger gently touching a point on the object, begin striking a constant pulse (not too slow, work with the resonance). Continuing the pulse, gently start to ‘pinch’ grip the object at that point to mute it. Slowly explore the object by moving the pinch along it. Whenever you encounter strong harmonics, bring them out, then move on. Stop when you reach a strong harmonic that relates (see below), try to bring out it, then release pinch to let that ring.
    - When you find a strong harmonic, press the electronics footswitch to capture/sustain the harmonic. Use this background to find relations between objects’ harmonics. Create background harmony that connects the objects.
- The piece should be structured around occasional ‘chorales’ where several objects are struck in a short sequence like a bell-peal, and allowed to ring out: keep it simple, e.g. with 5 objects the sequences might be [1-2-3], [3,2,1], [1,2,4], [5,2,1,3], [3,2,3] with space between each. A chorale section should last about 10–30 seconds.