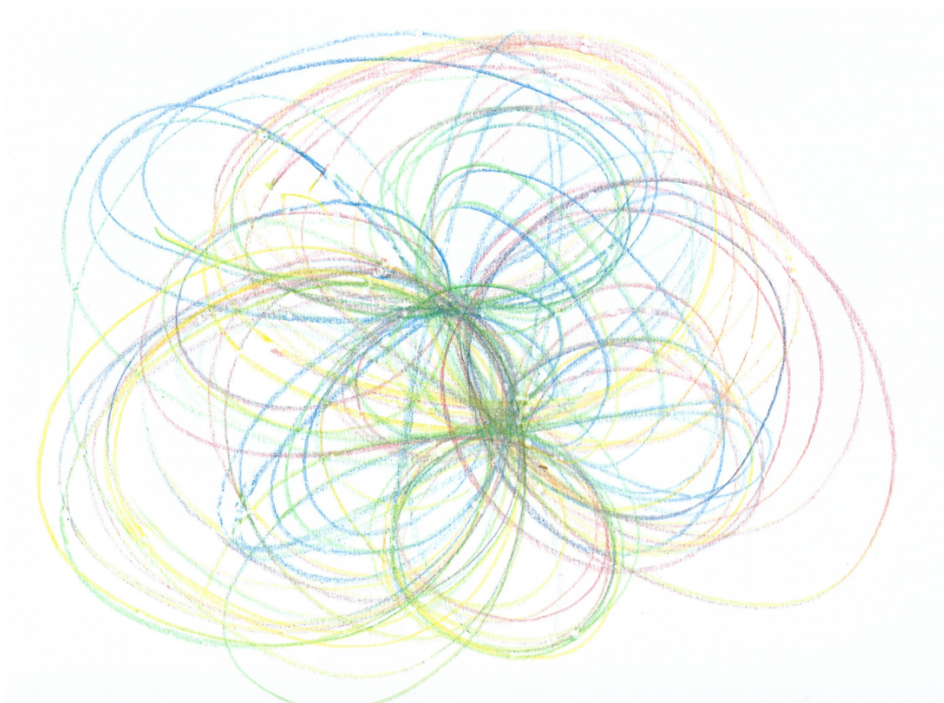


The whole is encountered by going further into the parts

contrabass prepared with string-coupling rings



Scott McLaughlin (Venice/Huddersfield, Feb. 2020)

for Christopher Williams

This piece is built on cycles of repetition and change driven by feedback between player and instrument. An instrument made unstable by preparations that pass energy from one string into its neighbor, creating interference patterns that the player enters into.

Cycles happen at many scales.

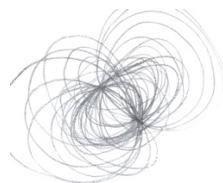
Event-level cycles of slowly bowing back and forth to reveal stable sounds; drones of single pitches or pitch-timbre-complexes, or repeating patterns of pitches that emerge from interference.

Phrase-level cycles of stability and instability as drones and patterns are disrupted by small but constant change.

Section-level cycles of changing environments. Moving between strings differently prepared, and living now in the consequences of a previous cycle's activity.

### **Drawing lines:**

As part of the practice-regime, make drawings of cycles. On a large sheet of paper, draw a continuous line that moves in overlapping circles. Each new circle should pass through the first one at the same point. Now try again but crossing the first circle at two or more points. Keep drawing continuously until knots emerge, stable points in the wayfaring curves, responding to the constraints of rules and materiality unfolding in time.



‘Similarly, at the microscopic level, we tend to think of the world as being made up of separate, independent subatomic particles interacting with one another through fields of force. But the view which emerges from physics today is very different. Particle physicists, as they are called, have found that subatomic particles cannot be considered to be made up of ultimate, simple building blocks which are separate and outside of each other. Increasingly, it becomes clear that analysis in this traditional way is inappropriate at the microscopic level. Thus, in the "bootstrap" philosophy of Geoffrey Chew, the properties of any one particle are determined by all the other particles, so that every particle is a reflection of all the others. This structure whereby a particle contains all other particles, and is also contained in each of them, is expressed succinctly by the phrase "every particle consists of all other particles.'"

Just as there are no independently separate masses on the large scale, then, there are also no independent elementary particles on the small scale. At both levels, the whole is reflected in the parts, which in turn contribute to the whole. The whole, therefore, cannot simply be the sum of the parts—i.e., the totality because there are no parts which are independent of the whole. For the same reason, we cannot perceive the whole by "standing back to get an overview." On the contrary, because the whole is in some way reflected in the parts, it is to be encountered by going further into the parts instead of by standing back from them.’ (Henri Bortoft, *The Wholeness of Nature*, p.6)

**Preparations:** place these between the IV/III and II/I strings respectively.<sup>1</sup> Start with both tuned to the same wolf-tone.<sup>2</sup>

**Playing:**

- Cycles begin with searching and listening, allowing sounds to emerge.
- Bow gently back and forth on one open string. Alter bow position and speed/pressure to search for a stable/repeatable sound.
  - This can be a single drone pitch that stays the same on up/down-bows, or a repeating pattern of pitches that change with up/down-bow (i.e. up and down produce different stable pitches).
  - Find these by exploring radially outwards. Find a stable pitch, then move bow position/etc. to find another. Keep moving back and forth between the first stable point and new points until a (mostly) repeatable pattern emerges.
- Once a stable sound has emerged, gently push at its boundaries until it begins to come apart. Cycle from stability to instability.
  - Use gentle changes of bow parameters (position, speed, pressure, etc).
- **Transitions:** use any of these forking paths to new section-cycles:
  - If the sound breaks into a new pattern, let it settle and then again begin to destabilise it. Renew the cycle.
  - Double-stop with neighbouring string. Very slow crossfade over many bowstrokes until bowing only the new string. Try to maintain stable sound. Begin a new cycle on the new string.
  - Singing bridge. Choosing a pitch from what you're playing, begin intoning this gently. When the sung pitch is stable, stop bowing for a long moment. Hold the sung pitch over the silence and start bowing a new string. Before you run out of breath, slowly glissade the preparation on the new string until the pitch matches the sung pitch (or octave equivalent).<sup>3</sup> Begin a new cycle on the new string.
  - Catastrophe: make sudden changes to a new string in response to a sudden change in instrument state. Use this transition sparingly.
- **Interventions:**
  - Pizzicato can be used to emphasise cycles:
    - Pizz an open string at the start or end of a section cycle.
    - Pizz an open string at the start of an up/down-bow cycle.
    - Continuous pulsing pizz to accompany a longer cycle, or to move a cycle across stability/instability (perhaps displacing the bowing altogether for a long moment).
  - Transcendent cycle:
    - A cycle where a single sound or pattern is maintained without change for a long time. Push gently at its boundaries but don't allow it to break. Fade out forever.

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<sup>1</sup> Not necessarily in standard tuning.

<sup>2</sup> For Venice 2020 version of the piece this was around Bb above the A-string 2<sup>nd</sup> partial.

<sup>3</sup> This might be the same preparation as was just used; if you move to a new string with the same ring on it (i.e string III to string IV).

**Venice 2020 version:**

This performance consisted of several sectional cycles moving across strings, using a mix of transitions: starting with double-stops mostly, then singing-bridges. The midpoint of the performance was marked with a single pizzicato section marker. The final two sections were a long pizzicato intervention (using all strategies above) ending *quasi cadenza* with pizz alone, and a final transcendent section that faded into string noise.