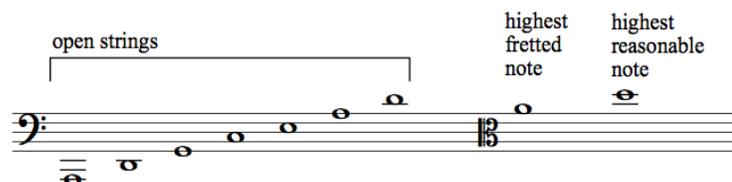


A few notes on writing for viol and for electronics – Liam Byrne

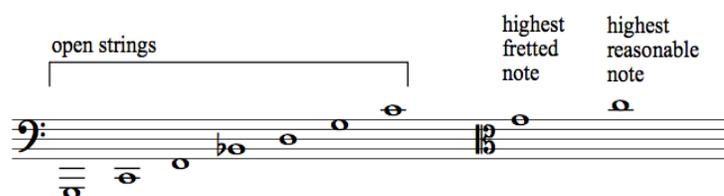
Writing for the viol is something like a combination of writing for a string instrument and writing for the voice, except with the topography of a guitar. It can seem confusing initially, but it's actually a very flexible instrument capable of producing a wide variety of textures. It's important to keep this notion of vocal lyricism in mind as we go through the technical details.

The bass viol I play has 7 strings and is tuned to $a=392$, which is one tone lower than $a=440$, which in effect means it is a B-flat instrument just like the modern clarinet. So, when I play, the pitches all sound one tone lower than written (This of course isn't an issue if you're writing solo viol pieces, but if your electronics involve pitched material it's very important).

The strings (as written) are as below:



And the sounding pitch (concert pitch) of the strings are as follows:



The instrument has seven frets, which cover all the semitones up to a fifth above the open strings. Above the top fret, it's pretty limited what we can do, but the range up to the octave above the top D string is usable, although it gets more delicate and airy the higher you go (unlike a cello, for example, which gets more cantabile as it goes up the string). Anything above the octave D is really extreme and should be approached with extreme caution, as it will always

sound strained and weak. The best advice I can give to a composer writing for solo viol is to get your hands on a guitar, any old guitar, and tune it like a viol. Then you really get a sense of the layout of the instrument and what sorts of chords and pitch combinations are possible and what will fit under the hand.

In terms of voice quality, think boy treble fused with smoky jazz singer, rather than lyric soprano. The viol's sound is characterised by transparency, warmth, and resonance, rather than power or sustain. I like to think of viol playing as a manipulation of the instrument's bodily resonance, especially its secondary resonances, rather than playing the notes on the strings themselves. In this way it's also kind of like the guitar, because it has a natural decay, so the bow is used to keep the instrument's sound in this beautiful equilibrium somewhere between sustaining and dying away.

Because of the clarity in the viol's sound, close double stops sound gorgeous, even low in the register. Double stops of tones and semitones are particularly expressive, especially when involving an open string. Chords of up to six notes are also very much in the instrument's vocabulary, but they must be rolled, usually from the bottom up. The maximum number of strings that can sound simultaneously is three, but three-note chords can't be sustained, and they need to be played quite forcefully in order to speak at once.

Harmonics, both natural and false, sound great on the instrument. Natural harmonics up to the 5th partial (two octaves and a third above the open string) are easily accessible, and higher partials up to the 10th partial of the harmonic series can be attained, but obviously they need a lot of time to speak and can be tricky to find, so anything above the 6th partial should just be very slow notes. False harmonics work anywhere in the instrument's range. When I play with electronics, I often use a series of filters and specialised reverbs to enhance the crystalline quality of harmonics on the viol, especially the false harmonics.

The viol bow, unlike that of the violin or cello, never really leaves the string. So, most of the normal string-instrument articulations like staccato and spiccato are not really possible, and heavy attacks also are difficult to achieve on single notes because the bridge is quite flat. If you want a big powerful attack, consider writing a double stop. Ponticello sounds fabulous and works across a wide range from slight glassiness to molto ponticello electric guitar distortion sounds, producing a lot of upper harmonic resonances as one gets very close to the bridge. Sul tasto isn't really a thing, though. Generally speaking, when considering articulations, the viol is much more like the voice than it is like other string instruments. We often describe our articulations using consonants, as if playing a text.

When playing viol with electronics, my normal setup is Ableton Live 10 suite, ClyphX Pro, a Keith McMillen SoftStep 2 midi pedalboard, a DPA 4099 microphone and a Schertler BASIK contact microphone. When writing for this competition, there are a range of ways for you to use electronics. You could send audio files of pre-recorded sonic material you've made yourself, or you could provide instructions in the score for me to pre-record certain things on the viol and then play them back during the performance. Or you could make a session file in Ableton that does everything you want it to do and include it as part of the score. Or you could even just write a normal score with written indications about how certain electronic techniques should be employed during the piece and leave me to figure out the rest. You could also even send "demo" audio versions of sonic material that you wish me to then recreate with the viol, either live or pre-recorded. If you also want to explore possibilities of processing the viol sound live, a few effects that work particularly well include reverbs, delays, looping, and pitch freezing. It's also very easy for me to record fragments of audio and play them back later in the piece, looped

or not. The viol's natural sound layers on top of itself very well, even in the low registers, and many layers of viols can sound rich and luscious rather than muddy.

Another approach to writing for electronics is simply to create some sonic material that you would like me to play back during the performance of your piece, as if it were for viol and tape. In these instances, I tend to prefer when there is some form of live control or interaction with the pre-recorded material, so that it feels more live. This could be as simple as splitting the pre-recorded material into a series of clips that the performer triggers at certain points in the score. Or it could involve something more complicated like applying reverbs or delays or other audio effects to the pre-recorded material in some way controlled live by the performer: for example, by a pressure-sensitive midi pedal, or a live-triggered timed automation, or an envelope follower. Introducing some kind of live aspect to pre-recorded material, even if it's just when it gets cued, can help a live performance feel more organic.

The most important piece of advice I can give you about writing for electronics is not to get too bogged down in figuring out exactly how something is going to happen, but to think imaginatively about the kinds of structures, colours, textures, and transformations you would like to happen over the course of your piece. Focus on the music and leave the mechanics to me.

Links to some recommended recordings

https://www.youtube.com/watch?v=wyArxP_YNtA

<https://www.youtube.com/watch?v=yd1FUEahxfI>

<https://www.youtube.com/watch?v=TMYPDgwNALY8>

<https://sethparkerwoods.bandcamp.com/track/pierre-alexandre-tremblay-asinglewordisnotenough3-invariant-2015>

<https://www.youtube.com/watch?v=SWryx8egdoY>

https://www.youtube.com/watch?v=yrJmoiA13_w&feature=youtu.be

Further recordings are available on a dedicated section of Liam Byrne's website; access details are obtained on registration