

OSTERHOUSE SOUNDS

Presents

Ripple Cello

A library of playable two-note slurs for creating expressive string textures



Introduction

On string instruments, there's a kind of energy and life you can put into the sound as you travel between two notes, especially if you play them in a single bow stroke. You can lean into the first note expressively, and then let the second note fold into the release of the first note so that they sound like one gesture. If these notes were recorded separately, then stitched together later, it wouldn't have the same nuance.

It's gratifying to play these two-note slurs across different dynamics. To capture this feeling, the samples are all recorded as swells. At the beginning of the swell, the second note can be played so lightly that the pitch is hardly perceptible. It's like a ghost note. Then, as the sound grows, the slurs naturally change and adapt to keep it fresh.

Like many other Osterhouse Sounds libraries, these are not standard string articulations. It's a specific playing style which happens to work well when mapped to a piano keyboard. The hope is that this particular style of playing inspires you to explore new ways of using strings in your music, either in sample libraries, or when working with session musicians.

I look forward to hearing the beautiful music you create with this instrument!

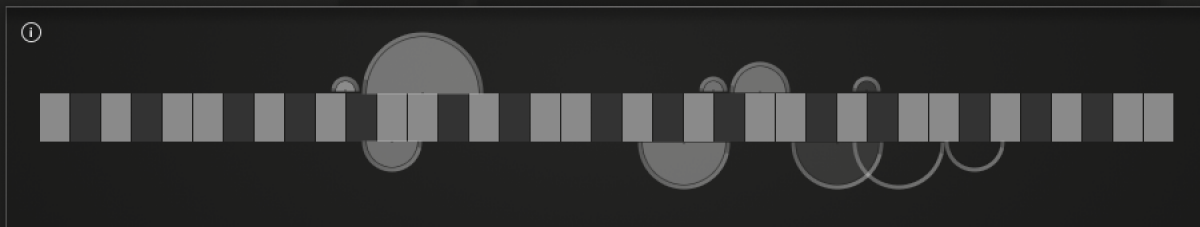
Thank you,
Ben Osterhouse

Getting Started

From now on, we will call the slurred pairs of notes “ripples”. It’s a more poetic way of describing the gesture.

Ripple Animations

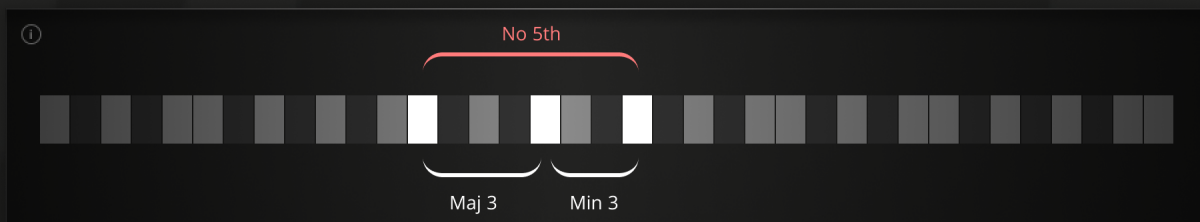
The interface illustrates what the script is doing by playing animations on both sides of the keyboard:



These animations show which pitches the ripples are traveling between. The outer rim of each animation moves in a circular motion to show whether the ripple is going up or down, and the filled part fades in and out as the ripples swell. Animations going downward go on top of the keyboard and animations going up go below the keyboard.

Playing Ripples

Play overlapping pairs of notes to make ripples. Stop them by letting go of whichever note triggered the ripple. Velocity controls volume slightly. Ripples can only span up to a perfect 4th. This means that if you play a triad, you can get ripples between the root and 3rd, but the 5th will be out of range. There are fewer redundant pitches this way.



Of course, there are lots of chords where you do have many redundant pitches. The extra busyness sounds good though. The max span of a perfect 4th strikes a nice balance between busy and sparse.

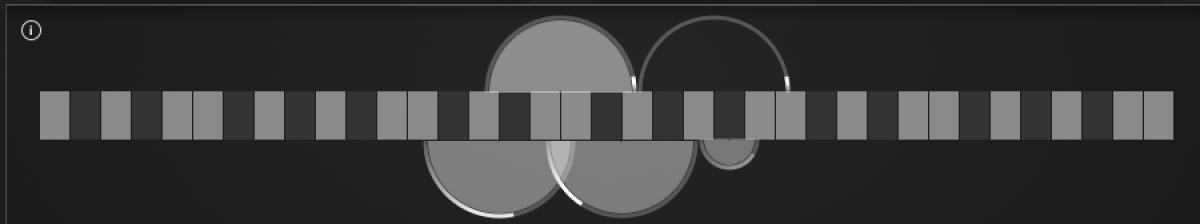
Sustain Pedal

Using the sustain pedal, you can have greater control over how ripples are triggered. If you play some notes, then lift the keys with the pedal sustaining, new keys you play won't make ripples with any of the old notes.

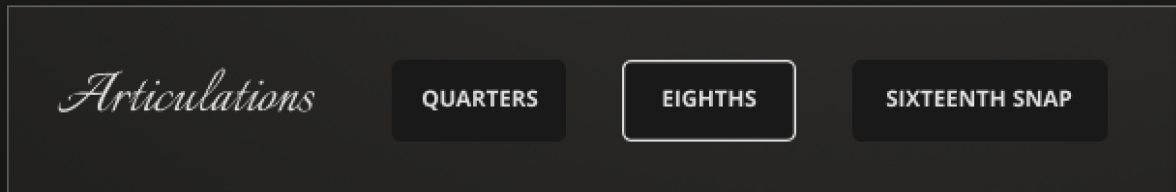
Here is an example, mashing all the keys of the C major scale. You get a very dense texture if you hold the keys down all at once:



If you hold the pedal down and play pairs of notes one at a time though, you can control the ripples like so:

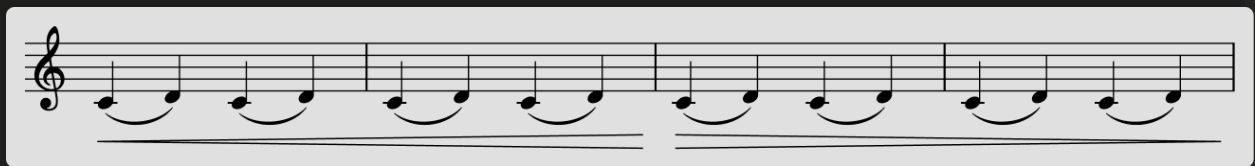


Articulations

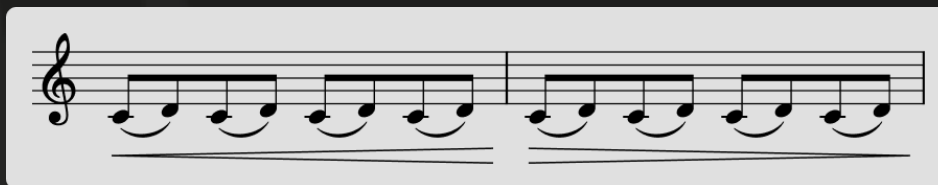


Articulations can be selected via the red keyswitches below the playable range. Below is example notation for each:

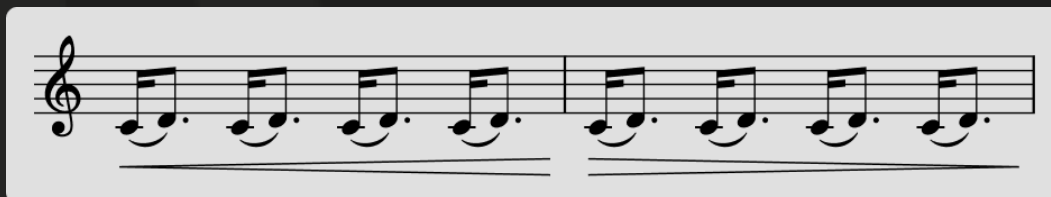
Quarters



Eighths

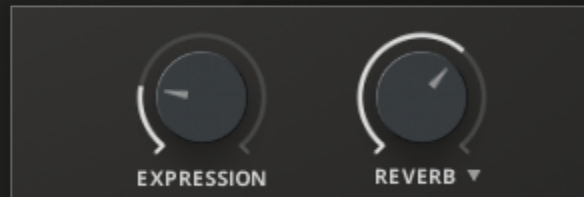


Sixteenth Snap



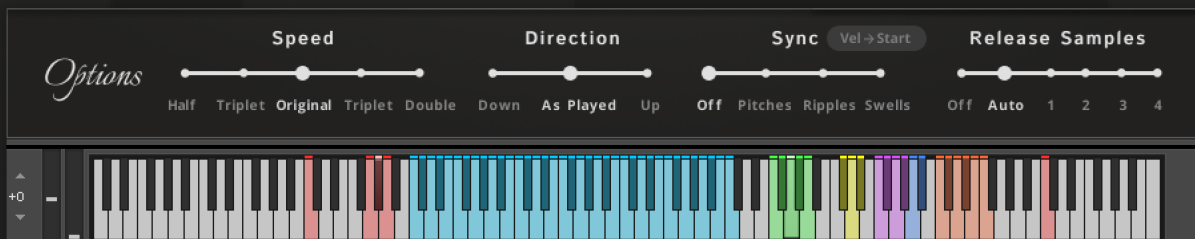
You may be wondering why the Sixteenth Snap articulation isn't continuous sixteenths. Playing continuous sixteenth notes with two-note slurs at 110 BPM, I wasn't able to find a way to add the nuance and shaping I wanted. It just sounded better to leave more space. This way you still get the snappiness of sixteenth notes, but plenty of breathing room during the dotted eighths.

Controls



- **Expression** - There are two ways to control volume in this library: Velocity and Expression. It's nice to have an expression knob because it adjusts the volume pre-reverb. This way you can get away with changing volume more without it sounding too unnatural. The min\max values and scaling are set to sensible values. By default it is mapped to CC11, but you can right-click to remove that mapping and change it to whichever CC you'd like.
I find this most helpful if you want to fade out gracefully, and you don't want to use the release samples.
- **Reverb** - Choose from 3 reverb presets (Small, Medium, Large) using the menu below the knob. As you can see, the reverb options are pretty minimal. They're a good place to start from, but you'll likely want to use your own reverb after Kontakt.

Options



All the options can be controlled via keyswitches, or by automating the sliders via host automation.

- **Speed** - Adjust how ripples will be time stretched to fit your project tempo. If you are using a tempo like 60 BPM, samples would be stretched a lot from their recorded 110 BPM. To avoid this, you could turn the speed to Double. Vice versa if your project uses a very quick BPM. The slower triplet speed could turn a quarter rhythm into a quarter-triplet rhythm, and the faster triplet speed could turn

that quarter rhythm into an eighth-triplet rhythm. These two triplet options could be useful for fitting the library in with other meters.

- **Direction**

- **As Played** - The direction of ripples is determined by the order you play notes in. It will try to play a ripple going from the last note you played to the most recent note.
 - If you play a two-note chord, but the interval is too wide to make a ripple, then when you add a note in the middle of that two-note chord, ripples will be triggered from both notes.
 - If the recent note is out of range of the last note (it's greater than a perfect 4th away), and you happen to still be holding another note which *is* in range of the current note, it will use that note to make the ripple. If there are multiple other notes it could go to, it will only pick the most recent one. It could pick multiple recent notes if they were played as a chord though.
- **Down / Up** - These two options give more control, and don't have as much clever logic compared to the "As Played" option. No matter what order you play notes, ripples will always go either up or down. Any ripples that can be made, will be made.

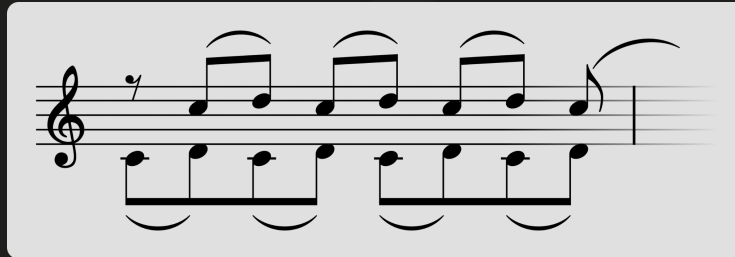
- **Sync** - Each of these options is some combination of legato and quantization. Whether that is technically what's happening is debatable, but intuitively that's what it feels like. They should just work, and make it easier to get useful results. **Note: if you start ripples, then change articulations, then start another ripple, you can have multiple articulations at once. In this case, these options won't work quite as designed.**

With  turned on, Velocity no longer controls volume. Instead, it controls where samples start playing from. This can also lead to sample starts sounding unnaturally clipped, but it opens up more flexibility and possibilities too.

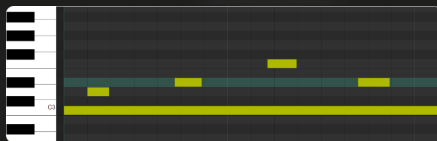
- **Off** - Samples always play from their start immediately. *I'd recommend this option if there's something specific with timing you want to do. Otherwise use the other options. They're more fun.*
- **Ripples** - New ripples always start at the beginning of their swell, but their sample start is offset such that the ripples stay in sync. As a result, one ripple might be swelling louder while another one is swelling softer, which can lead to interesting evolving textures. Synced ripples have a dynamic

attack time fade-in. If you start the synced ripple half way through, it will take the other half of the length of the ripple to fade-in. If you start the synced ripple most of the way through, it will fade-in right away.

- **Pitches** - Similar to the Ripple option, but it syncs pitches. This means that you could have a new ripple play its first pitch in sync with a previous ripple's second note, which can create a nice back-and-forth texture between the two:



- **Swells** - This will keep the swells in sync, which can be useful if you want to create a chord change right at the crest of the swell. As long as you are holding at least one key, the position in the swell will be maintained for new ripples you start. This makes it possible to stop and start ripples over the course of a swell, like so:



● Release Samples

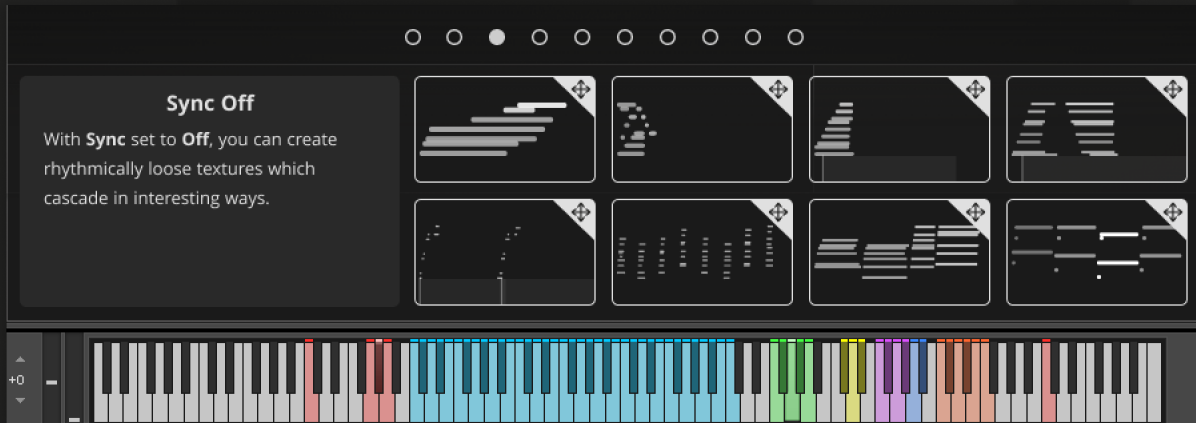
- **Off** - When release samples are off, the release's fade-out time becomes dynamic. If you release a ripple right when it started, the fade-out will last the length of the ripple to avoid cutting sound off so abruptly. If you release a ripple right as it's finishing, it will fade-out quickly before the next ripple has a chance to sound.
- **Short / Long** - When you release a ripple, it will continue playing until the end of the ripple, then crossfade into a release sample. This means release samples can only happen on the origin pitch of a ripple, not the destination pitch.
 - The short and long options use the same sample. Short release samples simply start further into the sample. They may sound slightly clipped sometimes, but they can be quite useful when you

overlap ripples such that release samples play while new ripples start.

- 4 different release samples have been recorded, and are automatically selected depending on where in the swell the release happened. The quarters and eighths needed separate release samples, but the sixteenths were able to share with the eighths and still sound good.
- **Release Sample Trigger Keyswitches** - On either side of the keyboard there are green keyswitches which manually trigger release samples. Let's say you have release samples turned off, but you still do want a release at the end. You can simply press one of these keyswitches, and it will bring all ripples to a nice close. Either the short or long release samples can be triggered, depending on how hard you play the keyswitches.

Ideas Panel

The ideas panel features a collection of midi clips which show the types of things that make this library truly shine. The midi clips can be dragged straight into your project, or previewed in the interface.



There is not an overwhelming number of options or controls in the interface. The midi you feed into Ripple Cello is where the most interest lies. This is why it makes sense to have these midi clips readily available right in the interface. No need to go digging through your file browser. Small differences in the midi can make large differences in how the samples fit together, for better or for worse, so the hope is that the ideas panel will serve to show how to get the most out of the library.

- When previewing midi clips, you will notice some of them loop, some don't. This was set up internally, depending on whether the clip made sense as a loop or not.
- The midi clips use keyswitches to change articulations and options. After previewing a midi clip, your options may have been changed by a keyswitch.

Credits

Performing, Recording, Editing, Graphics, Scripting: Ben Osterhouse

