Documentation

Concept

The idea was to create a kind of random, ambient sound-creating environment. Using the AudioContext OscillatorNode, sounds would be played at certain pitches, with certain durations and waveforms (sine, square, triangle or sawtooth). Combining this with a moving 2d environment would ideally create some interesting sounds, and with a strong visual-audio connection.

User Interaction

I wanted the user to be unable to control the shapes/notes directly, having to rely on the limited “physics” of the simulation. The user would be able to ADD notes, but not remove or control them. In this way, the sounds created would be less controllable and more unpredictable. Eventually, I added the ability to change the set of possible notes (retroactively changing all added notes as well), which changed the behavior/experience a bit, but not outside of the original intention.

Process

Originally, inspired by the in-class exercise, the shapes would be moving around freely, creating sounds whenever they collided with an edge. I had thought about making something happen when shapes collided with each other, but this proved too difficult for the time being. Additionally, while I originally had the idea that people could intentionally add notes to create some kind of melody, I had to drop this for two reasons. First, the interface of adding notes that bounce around is not precise enough for this to be really possible. Second, it would make things feel more like a “tool” rather than a kind of evolving environment that you can interact with.

With that in mind, I had to change the available notes from being more or less random, to first belonging to a single scale - and then later chords instead. This is because of the unpredictability (increased when I added gravity) which means there is no dependable rhythm or sequence. With random notes, or a scale of some kind, the sound if more often than not just muddy and confused.

Once I was using chords, though, I found it interesting to think of the entire system as a kind of large-scale, chaotic instrument for playing entire chords, and decided to see what would

happen in those could be changed mid-simulation. I found the result interesting, so I kept things in that direction.

Roles

Just me, I'm afraid!

Links

LIVE: https://hybrid.concordia.ca/b_heller/cart351/projects/two
GITHUB: https://github.com/littlegustv/Cart351/tree/master/projects/two

Resources

Background Image: https://www.toptal.com/designers/subtlepatterns/dark-embroidery/ by http://www.listvetra.ru/ (CC-SA 3.0: https://creativecommons.org/licenses/by-sa/3.0/)

Note Frequency Array: http://marcgg.com/blog/2016/11/01/javascript-audio/