

Owen McDonnell write-up

For *Alice in Wasteland*, I was one of the two sound designers, though my role extended well beyond sound design. Along with everyone else, I was involved in all our brainstorming sessions and helped try to cement our concept as the semester progressed. I also provided ample support for Vibha and Shruti in implementing Vizzie (Max/MSP) as their main ‘instrument’ for the performance. But in this reflection, I will focus exclusively on what I brought to the table in terms of sound design and what I learned along the way.

Initial sound ideas

Maggie and I wanted to create a soundtrack that made the live visuals even more sensational. The goal was to make what the audience saw even more engaging by supplementing it with a vibrant sonic dimension.

Initially, Maggie and I agreed to begin by writing some 2-4 bar loops in a chosen key (F minor) that could be layered together later on. This would allow us to work separately and then bring our work together later. This proved very successful—see audio samples #1 and 2.

[Link to audio sample #1 - Maggie's initial demo](#)

[Link to audio sample #2 - Owen's initial demo](#)

We knew that the visual storyline consisted of natural landscapes, urban cityscapes, material pollution, and finally, a plastic monster. We wanted to mimic this transition from pure, natural beauty to an environment infected by plastic.

We therefore thought of beginning with some kind of traditional orchestral score to represent the organic visuals. We would then gradually introduce sounds of plastic to mimic the infestation of material waste. See audio sample #3 for an example of the sound recorded from rustling/crinkling a plastic bag.

[Link to audio sample #3 – plastic bag](#)

Then, we ended up creating what was later dubbed, “plastic techno.” Essentially, all of the percussion (including the kick drum!) was made out of sampled recordings of plastic bottles. As an example, listen to audio samples #4 and 5. The first is a selection of the raw recording of crinkling the plastic bottle; the second turns slices of that recording into a rhythmic percussion loop.

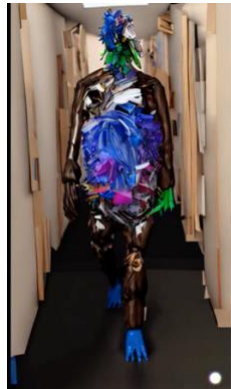
[Link to audio sample #4 – raw recording of bottle](#)

[Link to audio sample #5 – bottle as percussion](#)

I was very proud of this, and I thought that it served as an authentic contribution to the project.

To accompany the visual introduction of a plastic monster, I began exploring different ways to manipulate that same sampled recording of the plastic bottle from earlier. While having the sample play continuously, I adjusted the pitch of the sample and its start position within the entire recording – doing so yields a sound that resembles some kind of plastic entity eating and chewing! See audio sample #6.

[Link to audio sample #6 – monster eating](#)



An early rendition of our plastic monster

Difficulty: when is the video going to be done??

One of the difficulties that Maggie and I both encountered during this project was that it is very difficult to begin with a soundtrack if you don't know what the visuals are. Sound is such an abstract art—it becomes very challenging to begin designing it with no storyline or trajectory to follow. Obviously, in the professional media world, the video is often finalized before sound design begins. But this was still a unique challenge that was a fruitful learning experience.

As a solution, we basically had the entire group agree in abstract on a trajectory. So even if we didn't know exactly what the shots would be and how long they would be, we knew that we were going to see natural landscapes first, then city, etc. That gave Maggie and I enough to work with on some initial ideas. Then, as the visuals progressed, Vibha, Shruti and Yi sent over the actual clips.

Using a MIDI controller and deciding how to perform



Me practicing with a MIDI controller in Studio 1, Alison House

For my role in the performance, I decided to use an Evolution U-CONTROL UC-33 MIDI controller (pictured above). I know I only wanted dials and faders, and this had 22 dials and 9 faders, so that seemed plenty.

After much toying around, I decided that I needed only a few dials to control just a small handful of effects. The performance is really not that long (~10 min), and when performing, I think it's better to make do with fewer controls rather than being overwhelmed by a large number of possibilities.

I then realized that the only other kind of 'control' I need is that of volume for each of the 15 tracks (+1 for the master track). This is because my performance essentially involved launching clips in sequential order but then fine-tuning the volume of all of them. This provided me with significant control over what kind of sonic canvas was being created during the performance.

Since the MIDI controller was just a bunch of unlabeled dials and faders, I found it useful to create and reference an Excel spreadsheet where I wrote out all the assignments:

25	26	27	28	29	30	31	32	
sunrise open	distortion dry/wet	grain dry/wet	grain pitch	reverb dry/wet		monster - pitch	monster - loop length	
17	18	19	20	21	22	23	24	
sunrise trk vol								
9	10	11	12	13	14	15	16	
birds	ocean	bins		perc	kick	t2	t4	
1	2	3	4	5	6	7	8	
wind	city	rustle	crinkle	thick	t1	t3	monster	master

Excel spreadsheet with MIDI map

For the actual performance, I also labeled the dials and faders using white electrical tape and a marker (see below). Crucially helpful!



My labeled MIDI controller

For the effects, I chose to use only Ableton's stock effects, solely to minimize the potential for my laptop crashing. I believe this was a wise move—my laptop never crashed during rehearsals or the actual performance.

I had one dial controlling a distortion effect, two more dials controlling a pitch-warping effect, and a final dial controlling a reverb. These were all on the master track (see below).



FX chain on master track in Ableton

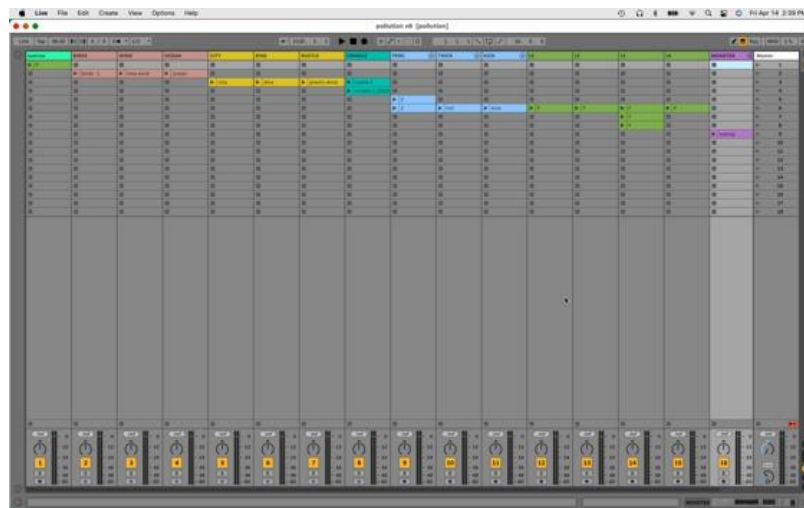
Why Ableton?

Maggie had never used Ableton Live before, but I suggested we try it anyway, primarily because (i) Ableton's Session View makes for very smooth live performance of short clips, and (ii) using Ableton's *Link* function, we would be able to run our sessions in sync with the same clock.

The Link function worked flawlessly. It initially didn't work over the University Wi-Fi (eduroam), but it worked over a computer-to-computer network that I created on my laptop. There were never any bugs with the Link function and I would absolutely use it again for a future performance.

Below is a screenshot of my Ableton project's Session View. During initial rehearsals, I had way more clips ready to launch than was necessary; I soon realized that it would make for a smoother performance if I whittled down the selection.

So I basically had one clip per track that was ready to launch, and everything was in order from left to right: beginning with the sunrise open sound on track one, then natural ambient sounds (e.g. birds), then urban sounds (e.g. traffic), then plastic textures, then plastic techno (blue = percussion, green = tonal content), then ending with the monster chewing sound in purple all the way to the right.



The Ableton session I used for this performance

Practice, practice, practice

We had several opportunities to rehearse before the performance: one on 27th April with Jules and Andrew offering feedback, two more in music studios on 3rd and 5th of April, and a final rehearsal immediately before the performance on 6th April.

The rehearsals were crucially important for me. It takes time to fine-tune the timing of a soundtrack that is paired with visuals, and it can only happen when everyone is in a room together and able to perform their individual part live.

In retrospect, I would have benefitted greatly from several additional rehearsals. It's difficult to arrange five people meeting together in a room with the proper equipment available, but I believe the effort is worth it.



27th April rehearsal – Jules providing feedback

How did the performance go?

For my own part, I believe the performance was a success. There were some technical difficulties associated with the visual equipment that delayed the initial performance. (Visual equipment seems to be much more finicky than sound equipment.)

During the first performance, I was mostly focused on just getting sound out of the speakers and making sure nothing broke. I think it was an adequate run, but certainly a bit tame.

Jules and Andrew provided some feedback after that first run, and then we went for another while incorporating that feedback. I personally focused on driving the sound effects to '11', e.g. really pushing the dynamic range, making weird things weirder, incorporating more drastic effects such as pitch shifting, etc. I therefore got a lot more personally out of the second performance—I felt like I was actually expressing something and that I was freely playing an instrument rather than following some kind of script.

One particular idea from Jules that we incorporated was having the soundtrack only play in one speaker (the one next to the first screen) during the first part of the performance; then, in order to usher in the audience from that area to the next area next to Vibha's screen for the second part, Maggie and I panned all the sound to that other speaker. I believe this was quite effective and a good practical use of a simple stereo setup.



Maggie and I at our performance desk

Lessons learned

#1 It takes a lot of time to get a group to commit to an idea.

It took our group well past halfway through the semester to get to a point where we could actually practice something. All of us (myself included) kept coming up with new what-if's, e.g. what if we included this? What if we tried this instead?

In retrospect, it would have been better to simply commit to an earlier idea and have something to practice—even if at the time we felt that it was not a fantastic idea. This is because the point is that we needed to practice, practice, practice in order to make progress—you really have no idea how something like this (an audiovisual performance) is going to go when talking about it abstractly, and you only find out once you put the idea into practice.

For this reason, in retrospect, I think our group would have benefitted from a self-imposed hierarchy. Since no one group member was in charge of making creative decisions, this allowed us to lollygag for weeks on all those what-if's mentioned above. I think we should have decided to have one person in particular be the creative director (or whatever title you want to call it)—someone who would have final say on whether we continue with a certain idea. This would have established commitment at a much earlier point.

#2 An audiovisual performance is more engaging if the sound and visuals are synced to a significantly precise degree.

Our performance basically consisted of long, wide shots of various scenes and then a soundtrack that supplemented it. I think it would have been much more engaging for the audience if there had been specific visual effects that were tied to some kind of audio effect (e.g. visual pixelation tied to audio bit-crushing). Maggie and I were able to model some of the visual effects in real-time with audio effects, but it was far from a precise relationship. I just

think that if you are going to have an audiovisual performance, the audience needs to be made aware that there is some kind of audiovisual machine at work in front of them, rather than two discrete sound and visual machines.