

Circus Through Sound

Audio-nce Participation

Stockholm, 22-23 April, 2018

You walk into a room full of people, they're all standing around in a circle looking right at you. Maybe it wasn't such a good idea coming all the way here after all. Or maybe you are simply at the wrong address, you came to see the circus show after all. This certainly doesn't look like anything you were expecting!

The leader of the group, the only one who isn't wearing headphones, reassures you saying that you've come right on time, that you should just grab a pair of headphones and get ready with everyone else.

"Hub? Ready for what?" There is no time for any questions though, before you know it there is a count-down and everyone presses the "Play" button on their MP3 players. "How did this even get into my hand? I haven't seen one of these in ages!" you're about to say, but there is already music playing and everyone around you is giving a thumbs up to the person in the centre of the circle. This strange person walks off and you're all left in the room on your own, listening to some music. Everyone here seems to be a little confused, but at least they know what they've signed up for. You, arriving late, have missed the introduction and just have to go with the group. If only you paid more attention while reading the programme!

After a brief moment of some pleasant music, you hear a voice. It probably belongs to the person who was in the middle of the group mere seconds ago, but you have no way of knowing. Never mind, it's too late anyway, they've left. This voice is explaining something, but you're too distracted to pay attention. What's going on here? Everyone else seems to be focused on the voice, having no other choice you try and do the same.

Turns out that this really is the circus performance, the voice tells you that we're all here to experience circus. The way circus makes us feel to be a little more exact. "What does it all mean?" This reassuring voice goes on to tell you that everything is going to be ok, you just need to follow his instructions and he'll get you through this. "Through what?" I guess it's too late now to walk out now.

Looking at the performance from the outside it almost looks like a dance choreography. An exceptionally precise one, the group seems to be acting in an almost random fashion, yet somehow synchronised. They stand around, looking confused and then all of a sudden, without any warning they start walking around the space. A little shy at first, but steadily gaining more confidence. Starting to make eye-contact with one another. And once again, in perfect unison, they all sit down. Well, all but one anyway. This one person is clearly confused, how come he got singled out like this? Feeling the stares of everyone else in the room, feeling like something must have probably gone wrong and he should be sitting down too. Just before he's able to there is a change in their facial expression. You can tell they're listening intently, seems like the voice is back in their headphones telling them what to do. Their posture changes, they stand upright, breath calmly, looking into the eyes of the audience. One person at a time. Enjoying the attention now. Once again a change happens, the person standing up seems to be terrified of something, starts looking around frantically, raising his arms about their head, as if fighting off an invisible monster. Then, just like that, they sit down again.

There is confusion again, people don't really know what to think about it. Except that there is no time to think about it anyway, there is already someone else standing up in a different part of the room. It's becoming clear that the first "performer" is already done, but there is another one asking for attention, making their presence known. They even end up doing a handstand! Or at least attempt to do one anyway. Once they are done, they sit down and we look around the room to see what's next. Who's turn is it now?

This time there are two people standing up. What happened, is it supposed to be like this? Or is the timing off? Feels a little awkward, nobody knows what to do in a situation like this. The two people end up slowly going closer to one another, looking each other in their eyes. Listening. Then, all of a sudden, they burst out laughing! They even blush a little, not really sure what to do next. They all go ahead with it though eventually. One final non-verbal check with their partner and then, once again without any warning, they slap each other! The whole room takes in a sharp breath, everyone seems very surprised by what happened. Quite a change of pace! The two people who were standing up are excited to say the least, almost ready to do it all again! They sit down instead though, looking around to see who else gets picked from the group.

The participants are now fully engaged with the performance, there is no doubt what is going on, they could be picked at any moment. Will they be able to follow along with the task? Or should they try to ignore the instructions, act like nothing is happening when in fact they're being asked to stand up? Would they dare ruin it for everyone else? The danger feels very real all of a sudden!

Introduction

Over these past two years I've learned loads about my circus practice. About myself. Being exposed to all these other artists and academics, it forced me to be more aware and more critical. To think that I used to call myself a ladder-balancer when I started this course. I've gone a long way. More importantly, I can see now beyond the circus technique, beyond the tricks. I was an expert at learning new tricks, now it's more about expanding into new fields. I'm slowly becoming a lot more than "just" a circus artist. I'm becoming an artist. The change is mostly in the way I perceive myself and my work. It's an internal difference, from the outside people would probably still put me in the same box. Unless, of course, I get a chance to talk to them that is, give them the backstory to what I do and how I got to be where I am now.

This here is just that, my backstory.

"Illusions"

I've spent most of my circus "career" balancing on top of various objects, it's something I'm obsessed about. There is this "Golden moment", when I'm not falling forward nor backward, I'm just up there, in a very improbable position on top of an ordinary everyday object like a chair or a ladder. Gravity seems to have no effect on me. It sends goosebumps down my spine whenever it happens, as if time froze for a moment. Makes people gasp out loud. I would too, if only I wasn't afraid of ruining the magic. Once it's over and gravity starts pulling me down again I usually burst out laughing from joy, that's how satisfying these encounters are. It's almost as if for a brief moment I am winning my battle with gravity. It's just an illusion obviously, but something I took as a starting point.

I've been suffering from a condition known by the name of "graphic designer" for all my adult life, a full decade now. I almost see it as a curse, I'm obsessively observing the finest details and I'm mentally rearranging them, all

to please my aesthetic sense (one that I have trained myself to have, I wasn't always like this). I can get worked up over a piece of badly designed text, as if it actually mattered. This puts me in a constant state of observation, always considering alternatives and better solutions. It only made sense I'd take advantage of this strange passion I have and see how I can integrate it into my artistic research. I've applied for MA CIRC at DOCH proposing to explore optical illusions.



Pic. 1 Me and one of the many out of proportion objects I was exploring. Doesn't my hand look small?

It didn't take long for me to realise that I could go further out of my comfort zone, instead of just focusing on our visual senses, I could attempt to trick one's perception through sound instead. That opened up a whole new field to explore and I knew straight away it's the direction I wanted to go in.

I use audio to enhance my everyday life. From listening to a playlist to calm me down all the way to creating an almost out of body experience - live augmented soundscapes. As sound plays such a crucial role in my life, I'd like to be able to combine this with my circus practice in a more practical way.

I'm on the lookout for new inspiration, learning from podcasts, storytelling techniques, use of audio to achieve various sensations/illusions, going to the theatre to learn from the masters. This is completely new territory for me, never had to think of my role as a circus artist this way, but I understand other people have already explored these things in depth. I only need to find them and gather their knowledge. I'm looking into the work of people who are expert storytellers, writers of radio drama, sound designers, sound engineers, musicians, foley artists (people who make sound effects for movies). Basically, anyone who works with sound, as all these people have a better understanding of how sound impacts the audience.

Right from the beginning of the course, I felt that having a different guest teacher each week is a great idea, it has forced us to have to explain our vague ideas to a different person. By doing so we'd be explaining it to ourselves along the way.

The idea of focusing on tricking ones hearing instead of vision comes from one of these early introductions. I got tired of talking about myself using the same words, would always change it up a little and before I knew it I wasn't just doing optical illusions, but aural ones.

Another example that comes to mind was during one of my 1-on-1 sessions with the mentors. Instead of just talking them through it I took them on an exploratory walk through the building, listening to our surroundings first hand. It was fascinating to give them the steering wheel, see what they are attracted to. This together with my own solo trips has led me to identify what creates an illusion, how to best suspend the disbelief.

Turns out that for me to trick the listener all I had to do was to get them to

listen intently, pay close attention to what the environment we're in sounds like. Once they start identifying the individual sound sources, they're fully focusing on what sound comes from where I can easily make a brief recording without them noticing. Then it's just a matter of me playing that same recording back in the right moment and all of a sudden it's as if there is a glitch in the timeline. A sound that we heard moments ago has returned, we heard it even though it wasn't there anymore, bringing us into a fictional reality.

Being back at university gave me the confidence to aim high, dreaming up collaborations with students from other departments. I was expecting that I'll be able to find people who are experts at sound design to work with me. Otherwise, I would have never even dared to go so far into the unknown. Needless to say, I have failed to get any of the other students to work on this with me, they're already too busy working on their own projects. I didn't see that coming. It meant that I ended up having to learn almost everything on my own. Can't complain though, I did want to expand my practice, didn't I? Apart from the occasional consultations, I ended up going down the route of YouTube tutorials and books. I've custom built my own "Sound engineer 101" course, spending a big chunk of the past two years trying to become a sound designer. Always remembering where I come from, looking at it through my circus perspective.

I'd read books on how to create sound effects for film, trying to re-create the way we expect objects to sound. To create a more realistic representation of whatever is on film. Once I've learnt the rules though I was able to start bending them, to play with the expectations of the observer/listener. There was a whole chapter on making footsteps sound as accurate as possible, but I'd instead mix the sounds up, make it seem as if we were walking in snow instead of on grass. It was always just hinting at the possibilities, I didn't want my work to be just a demonstration of various techniques, I wanted to see if I can actually suspend their disbelief for a moment. Transform them.

Another idea would be to use sound as the main object of my presentation.

I could, for example, do a little demonstration of this little experiment of mine. It would all be fake, I'd place a microphone into a container of water and explain to people that I'm working on a new technique of recording and preserving sound. Anyone who knows a bit about microphones, or the way sound travels, would know that this is all make-believe, but that doesn't matter here. I'd have this microphone slowly sinking to the bottom of the glass water container and then I'd go ahead and explain that I've managed to freeze sound. There would be an ice-tray with ice cubes and as I throw them into the water one by one, we could hear different tones coming out of the ice. I could even throw in a few ice cubes at a time, create a chord, play a melody. Now, this is obviously pre-recorded sound being played, but it got me thinking more and more about how sound is being under-utilised in performance, that it could be it's own vehicle for connecting with the audience.

I was now working with sound, but not as a sound engineer or a sound designer, but as a circus artist.

My immersion into the soundscape

I have these very sensitive microphones that I've built, high-quality headphones, a portable recording device and a 36 pack of AAA batteries. With this kit my world becomes transformed, I end up going on these sonic explorations through the city, sometimes collecting sounds with me, but mostly just listening. I'm paying attention to the way my perception changes, to how much more aware I am of my surroundings. At times I feel like a comic book super-hero with enhanced hearing. Everything seems somehow "more-than-real", there is so much detail to the soundscape that once I take my headphones off I find reality to be dull. I've been spending so much time in this hyper-real space that it even crossed my mind that I might be so used to it that real life would become boring. Talk about a change in perspective.

I'm obviously not the first person to come across this phenomena, field

recordists have been doing just this ever since the recording equipment became portable. Most of it was for documentation purposes only, making a sound map of sorts. However, the more one goes deeper, the more you get to hear the "music" in the space around you. Aaron Ximm, aka the Quiet American, is a great example of this. He's been capturing on audio tapes his travels from all over the world, producing something he calls the "One-minute vacations". This is the description that can be found on his website:

"Take a one-minute vacation from the life you are living.

One-minute vacations are unedited recordings of somewhere, somewhen. Sixty seconds of something else. Sixty seconds to be someone else."

That's how transformative sound can be. I knew I was on to something here. I noticed that using sensitive microphones would train my hearing. I'd be more aware of my immediate surroundings even after I switched the equipment off. Just as my circus practice affects my balance when I'm on but also off stage, my hearing was now becoming affected even when I wasn't doing my listening practice, when I wasn't actively focusing on it.

Seeing Simon McBurney's award-winning show "The Encounter" only solidified my intuition, I wanted to see how I can use sound to enhance my circus. Before I could do that though, there were a few things I needed to address. I find that this is an excellent way for me to get started, figure out where the boundaries are so that I can eventually go ahead and break them if necessary.

First of all, I needed to know what were the constraints of the technology I was going to be working with. My main concerns were:

- Low audio quality
- Audio delay

If it turned out that there wasn't enough detail in the sound, could I still

trick the listener's senses? There is no con without confidence after all. I needed to figure out how much it took though, might be that the brain is quite keen on filling in the gaps, I just needed to set the right conditions. I was thinking of possibly having to create a sense of intimacy, making people feel at ease, allowing them to suspend their disbelief. This is quite similar to what traditional illusionists/magicians do to increase their chances.

Same goes for the audio delay. I had to see how fast the brain really was at noticing something was off. Do we really notice when spoken word is out of sync with the person speaking? What if instead of a delay it was in anticipation, how would we respond? All this had to be tried out, it was as simple as using video editing software, just separating the audio track and moving it around on the timeline.

I did a series of simple experiments, mostly just on me or who-ever happened to be around. Nothing too surprising came out of it, but it needed to be done all the same.

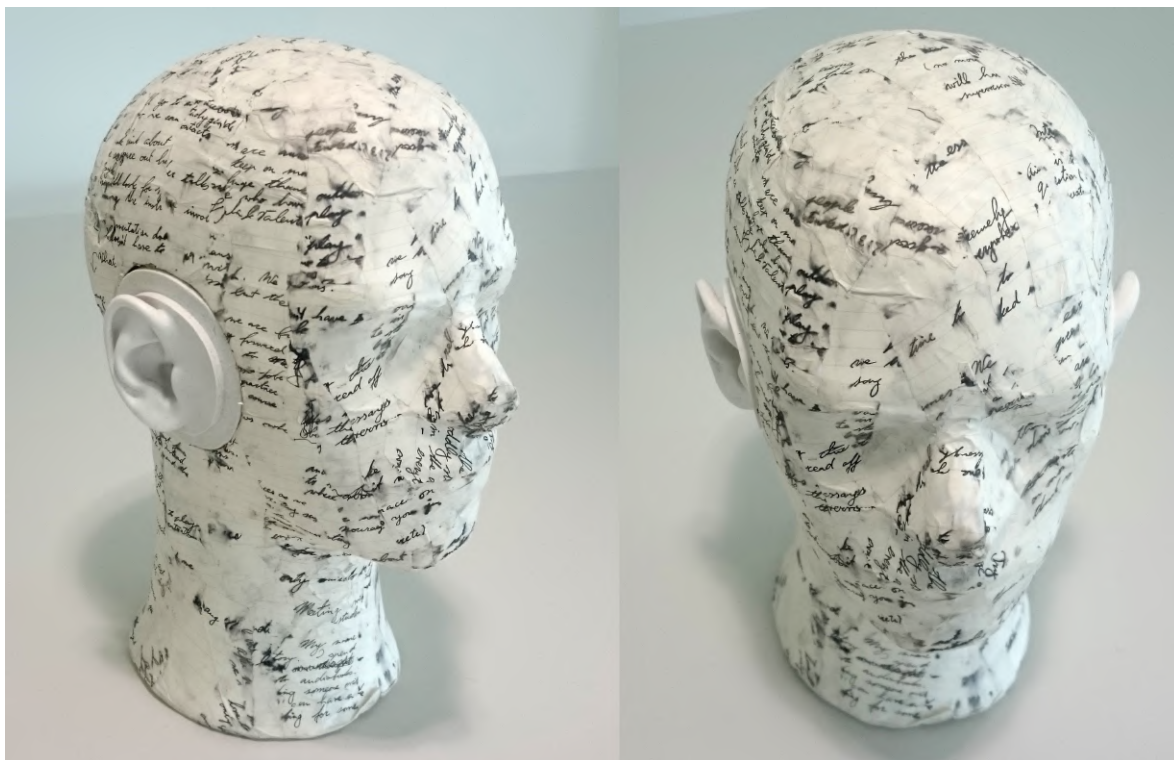
Once that was out of the way, I was testing the microphones live, seeing if I can get people to feel as if their sense of hearing had shifted, almost into an outer body like experience. Could I get them to explore their surroundings with this "enhanced ear"? How about if I took control, does the illusion still hold? What about if there were more than one person listening in? How far could I push it, how does delay or other effects mix things up?

All this was possible thanks to a technique called binaural audio recording. Binaural audio is the process of recording material in a way that simulates human hearing. These recordings can put the listener right in the middle of the environment in which the recording was done. If done correctly, listeners can have a hard time telling the difference between a recorded event versus one that is happening in actuality.

John Stanmeyer describes it best when saying that: "Most of us see in three dimensions. With two separated eyes, signals to our brain present a rich

perspective of depth, layers, texture and most importantly, a sense of place. It's easy to take the simple act of sight for granted until losing it. We also hear in three dimensions. With separate ears on both extreme sides of our heads, the audible world around us is being presented in a spellbinding rich landscape of spacial sounds. Because of the spatial separation of our ears, we can sense discernible distance, layers, texture, even feel sound elicit it's flow and movement."

DIY dummy head microphone



Pic. 2 - Binaural dummy head microphone

It was clear that in order to make these recordings I'd need to get hold of my own binaural equipment first. The binaural dummy head is by far the

most popular method of binaural recording, because it allows the most potential for human ear simulation while keeping the microphones completely still and in place. I've used Alexandre Fortin-Chabot's excellent thesis on "Diversifying Binaural Recording Techniques" as my main source of information. Below can be found some advice Alexandre has on the construction of a dummy head.

In true circus fashion, I managed to make the most out of what little I had available and I ended up making one myself.

The head

Along with everything else involved in the creation of a dummy head, materials used should try to simulate a human head. Therefore, a solid-but-porous material is ideal for a dummy head. The average human head size ranges from 53 to 57 centimetres in circumference, and therefore the dummy head used should be a similar size. Most, mannequin heads have a circumference slightly smaller and while this is still usable, if one can find a bigger dummy head people with above-average head size will be more likely to hear binaural audio recorded from that dummy head more clearly.

Ears



Pic. 3 - Silicone ears

This part of the dummy head is the most important aspect for a binaural recording; not only does it hold the microphones in place for the recording, but the shaping of the ear plays the biggest role in the simulation of human hearing. With that said, it is recommended that ears on the dummy head are made with utmost detail and in a size that matches the international average.

Though the outer ear varies in shape, the middle/inner ear is a lot more similar among humans. The ears molded on a mannequin head are usually not well defined enough or too small for a binaural recording, and the material of the ears match that of the head, which is almost always too hard. The prosthetic ears' material should simulate cartilage instead of hard bone, they should have well-defined ridges that look like a human ear's, and finally, they should have a hole made exactly where the ear canal is for the microphones.

What people usually use instead is prosthetic ears made of silicone as they have all of the above attributes. I ended up making my own set.

Microphones



Pic.4 - In-ear microphones

Our auditory organs themselves are omnidirectional by nature and the ridges of our ears affect the way we hear things. Because of this, binaural dummy heads are said to have an “ear” polar pattern even if it uses omnidirectional microphones. When they are installed in the ear (or ear canal) of a homemade binaural head, they should be fastened well enough so that they are in the centre of the canal and remain there during the recording process. Because of the small diameter, it is essential to get microphones that are small enough to fit inside the ear canal.

Two of the main requirements of microphones for binaural use are that they have the widest frequency range possible in order to pick up directional subtleties of a recording, along with the flattest possible frequency response.

After extensive research, I ended up having mine custom built by the German engineers at Soundman e. K.

The first presentation

Here comes a detailed description of my first public presentation at DOCH. I consider this to be a crucial moment, it forced me to focus on finally making some decisions, not just vaguely exploring all the possible options out there.

Excerpt from my proposal:

"I'm going to attempt to figure out how to create an immersive experience for the audience, enhance their senses, get them involved in an active way with their surroundings, help them to create the story they need to hear. All of this would be done mostly by using a combination of streaming live audio over-layed with a pre-recorded binaural soundscape. Mixing the real world with the virtual one.

I want to create a space in the mind of the spectator, a fictional environment that becomes complete in the imagination of the observer. Create conditions so that it becomes difficult to recognise what is and isn't real, a space where you can't even trust your senses any longer. To fully suspend your disbelief and let yourself be taken elsewhere.

I'd make various augmentations to what we are perceiving through our senses in order to trick the mind.

First of all, our senses can be enhanced;

-By using sensitive microphones & noise cancelling headphones I can decide what sound I want to feed to the audience, give them the impression that things aren't quite as they appear (spacial awareness becomes distorted, we increase the amount of details and all of a sudden our surroundings may become overwhelming, one becomes highly aware of every single sound source in the room).

-Taking it one step further, instead of just augmenting the live soundscape I can actually overlay it with pre-recorded audio, allowing me to create some

unexpected illusions, getting people to hear a sound that isn't really there to begin with.

I would like to add layers onto reality, try to find ways how to blend the virtual with the actual surroundings. Assuming that there are no technical restrictions I'd look into what creates a distinct response with the people listening to my soundscapes and try and figure out how to recreate the results."

When asked how is my work still circus, I had a bit of a hard time coming up with an answer myself. To be entirely honest, I wasn't even sure if it still was circus to begin with! What is circus anyway? I find it hard to come up with a satisfying definition. Circus can be so many things, it means something else to each one of us. Maybe that's one of its key traits, it's constantly adapting, always reinventing itself. That could be why it's hard to define in the first place. Circus can be whatever we want it to be. Maybe the question isn't so much "What" is circus? but instead "How" is circus?.

I'm thinking of circus as an adjective, not a noun.

As a balancer I'm always getting in and out of control. At one point I lose my balance, recover, only to then lose it again. I am doing something similar with the audience here, getting them in and out of what is real and what isn't. Getting them in and out of control, in and out of balance. Besides, it's the ear that allows us to find balance, just as it allows us to listen. It all connects on some level.

The sound becomes the trick. I use it to make illusions, suspending their disbelief, breaking rules and expectations, creating emotions. I use it to make circus.

The Audio Studio



Pic. 5 Audio studio

For a few weeks I took over the acro-studio at DOCH and made it my own audio lab. Using blackout curtains I've soundproofed the room and removed all outside distractions. It became a place of complete silence and darkness. Almost like an isolation tank, I could now finally float away on the sound waves I've created. It's no wonder I've had a few people telling me that my work had some psychedelic qualities to it, that was my goal all along, trying to trick the senses.

There was a grid of concealed speakers spread out across the room, one in each corner to create a fully immersive soundscape. I knew that most of my work will have to be listened to through headphones, that's the nature of the technology I'm working with, but I wanted to make sure I can create a heightened awareness of the acoustics before the headphones were even plugged in. It invites them to listen more attentively, to be immersed from the moment they arrive.

I've tried to see what effects prolonged exposure to various sounds would

have on me. Anything from the sounds of the rain hitting against the windows, the steady crashing waves of an ocean, all the way to the sound of a busy cafe. In the end I've opted for a soundtrack one would expect to hear in the jungle, it seemed to create the right kind of an edge. This is also confirmed by the work of Dr. Jonas Braasch, a musicologist at the Rensselaer Polytechnic Institute. He has conducted a study on psychological acoustics where he says this about "natural" sounds: "enhancing cognitive functioning, optimizing the ability to concentrate, and increasing overall satisfaction."

During three sessions in the same room, the researchers asked 12 participants to complete a test requiring sustained attention. Each session featured a different soundscape in the background: office sounds muffled by white noise, office sounds masked with the sound of "flowing water in a mountain stream," and office sounds with no masking noise. When listening to the natural sounds, the workers not only performed better on the task, but also reported feeling more positive about their environment than they did in the other sessions.

That was a fraction of what kept me busy in this "audio studio" of mine. Most of the time I was experimenting with the binaural microphone that I've built.

I've ended up preparing a demonstration of my work split into 3 distinct sections.

- Part one, where I'd use live audio to enhance my performance
- Part two, where pre-recorded audio was used to get people to interact with their surroundings.
- Part three, where it all came together. The sounds from part one & two were accompanying me while I was performing an excerpt of my circus act. Up until the point my circus was still present, but only through the sounds the audience heard. They've heard what my performance sounds like and at the very end, they finally got to see it too.

Both in part one and part two I used these miniature ladders of mine as the only sound source. The ladders were originally used as a scaled down

model of my circus ladder, they were supposed to aid me in making visual illusions in an earlier stage of my research. It made sense conceptually for me to be reusing them here too, it's my circus apparatus, even if a lot smaller than what I'm used to. My equipment has now shrunk so much that it would eventually become sonic. They didn't even need to see it anymore, as long as they could hear it. I used them to create sounds that would accompany the participants through out the whole presentation, they would get to interact with them, it would make them almost become performers of sorts in the audio walk. They'd be performing with the miniature ladders for one another, creating an audio trail for the next person.

Part 1. Live augmented sound

I'd invite people to join me upstairs in the audio studio. They'd walk into a dark room. There isn't much to see at first. I'd wait a moment, wait for their eyes to adjust to the dim lighting and then ask them all to take a seat and put on a pair of headphones. I'd go on to explain that the headphones are plugged into the head shaped microphone, that they'd be listening to their surroundings through the dummy head's "ears". While all this is going on, while I'm explaining to them how to adjust the volume, how to make sure that they've got the headphones on the right-way I get my first chance to mix in some pre-recorded audio. The voice they are hearing, my voice, is live, but there are also some pre-recorded instructions that I've fed into their headphones. I don't point it out though, it's so subtle that they most likely don't even pick up on it. It is slightly disturbing though, when out of nowhere you have the feeling that the person talking to you seemingly didn't even open their mouth. You could have sworn that you've heard something though, what is going on here?

I went on to show them how sensitive the microphones are. The floor is covered with these 8-9 cm long aluminium tubes and as they are being rubbed against each other we become surrounded by a completely different soundscape. Once again though, things don't quite go as one would expect, the sounds seem to continue for a brief moment despite the fact that I've stopped making them. I play with this for a while longer, do a slightly odd

sequence of moves, a dance choreography of sorts. It does not become clear until later in the day what they've witnessed. I like to let them interpret it in whatever way they find suitable, we're here to consider new ways of doing circus after all. Doing it through sound.

Part 2. Audio-walk

Shortly after I'd ask them all to unplug their headphones from the binaural microphone and I'd take them all to the door in the opposite corner of the room. Here they're instructed to take out their smartphones and prepare the audio recording I've emailed them the day before. I'd ask them to press play after they crossed through the door, right as it shuts behind them. They'd hear my voice as if I was still standing there next to them. It's all set up so that they hear it from exactly the same position where I was standing only moments ago, I even made sure that the very last thing I told them would be seamlessly continued by what I was saying in the audio recording. Obviously, once they turn around they'd realise that it's just a recording of my voice, but for that brief moment I like to think that they got tricked. Once again, the sound becomes the trick.

They follow my voice through the building, I take them for a walk and at a few other moments some fictional sound is blended in. Whether it's the sound of someone walking down the corridor with them, or the sound of an invisible circus performer balancing on a ladder in the far corner, it's always very faint. They have to actively try and figure out what's going on, it wasn't just a demonstration of some special effects that they got to listen to. My voice would take them through the space, giving them various instructions. They'd be told to drop on the ground some of the aluminium tubes I gave them earlier and to listen what they sound like. As I prepared all the recordings in advance, I could time it so precisely that the moment the noise dies down they can just about make out the sound of somebody else in the building dropping their own aluminium tubes on the floor. That was another person doing the same audio-walk as them, but a bit further ahead. That's how they'd know

where to go next, they'd follow this audio equivalent of a trail of bread crumbs through the building.

I was trying to get them to pay attention to what the individual spaces sound like, be more aware of the acoustics of the space, trying to get them to distinguish actual live sound from the pre-recorded ones I'd occasionally add into the mix. I aimed to get them uncertain about what was real and what wasn't. It felt a little bit like I'm getting them in and out of balance, an extension of my practice as a balancer. This time it's happening straight between their ears though. But then again, my balance is also found through the ear, turns out there is a connection after all.

Part 3. Aural & Visual combined

In the very last part of my presentation I tried combining the live sounds from part one, pre-recorded sounds from part two and even the strange choreography from the very beginning all of a sudden made sense. At first I was removing my circus equipment, but my body would still act out the same movements that I've been training all these years. Even if the ladder wasn't there anymore. There were just the small aluminium tubes, a deconstructed ladder. I ended up deconstructing the ladder and using just the sound it makes through my whole presentation. The ever-present sound of a ladder balancer, shifting my weight from one leg to another, has now become the only thing left. The sound. At the very end they got to see a bit of my circus performance, this time with the full size 3m aluminium ladder. I've realised later that it wasn't even necessary anymore though, I could have done my circus without it. My circus was changing.

Augmented audio experiments (USE HEADPHONES)

<https://youtu.be/x7BoYBphqBc>

Audio-walk (USE HEADPHONES)

<https://youtu.be/PSprSnKPcXg>

Pre-recorded vs live sound

To me there are two main distinctions when it comes to the sounds I'm working with. Either they're live, based on the environment we're in and the events we're witnessing, or they're pre-recorded, something made in advance for the purpose of being played-back. At first I was most interested in combining them both, something that would give me the greatest amount of artistic freedom. This turned out to be a lot greater challenge than I originally anticipated.

If I wanted to feed audio into the headphones of all my participants, I either had to have a very long cable going to each person, or go wireless. Both have their own (dis)advantages, this is what I've discovered so far:

Wired headphones would need not only great amounts of wires, but also audio amplifiers & splitter boxes. It's common to find a splitter box to accommodate up to 4 sets of headphones, but I needed a lot more than that. I ended up going for a set of 4 splitter boxes connected to my audio mixer. They were connected as a parallel circuit, resulting in me having up to 9 headphones plugged in (8 participants & 1 technician)

The advantages were obvious. No audio delay, no noticeable loss of quality. I did mind that I've lost the freedom of movement for my audience though, I was hoping to let them explore the space.

I've also experimented with wireless headphones. Both Bluetooth & FM. Unfortunately, the technology isn't quite there yet. In the first case, I could only stream to two sets of headphones at a time and only at a range of about 10 meters. I had slightly better results with the FM option, the ones they use at "silent discos". They have a range of about 100 meters, the amount of listeners who tune to the same frequency is unlimited. For a long time I was expecting this is the technology I'm going to go for, I've built a relationship with a company in Italy who has sponsored me with a transmitter and a few receivers. The plan was to either rent out more units from them later, or even bulk buy straight from the factory in China. They've even sent me some

samples to test out. To my great disappointment, there was a drastic decrease in audio quality, a constant white noise hiss. These headphones work fine for loud party music at a “silent disco”, but were unsuitable for my purposes.

Based on my tryouts I’ve concluded that I’m going to have to stick to the wired, pre-recorded option for now. It has the added benefit that I could theoretically set things up so well, that everything is self-working on its own and I wouldn’t even have to be present anymore. Now that’s an exciting prospect. While I certainly had no idea how to go about doing something like this at the time, I remember distinctly thinking that maybe the mp3 circus idea might not be so far-fetched after all.

Other sound artists' work

I was aware of how my work is becoming more and more distant to what other circus artists are doing, but there are always plenty of other artists I could be inspired by instead. There are the audio-walks of Janet Cardiff & George Bures Miller, R.M. Sánchez & Isa Camus, and of course the now viral "MP3 experiments" by The Improv Everywhere group. My work is innovative by attempting to recreate circus. Trying to make us feel the way circus makes us feel, pushing the boundaries of what else circus and audio-walks could be.

I’m greatly influenced by artists that use audio in a context that’s similar to what I might be aiming for, mostly in radio drama, story telling and installation art. I try to analyse their work, see what results they’re getting and figure out ways how I could learn from their achievements (and mistakes). There is Janet Cardiff for example, she has spent most of her professional career making her famous audio walks, a pre-recorded soundtrack blended in with the sound of the surroundings. A multi-sensorial interactive work that blends the real world with a fictional one. Her walks are an exercise of trust between the artist and the participants, who never know where they are being led, or really even why, and it results in an active and engaged attitude in the audience and their relationship to art. While she was

doing these things 10-20 years ago with much more simple means than what we have available today, it's very exciting for me to see that she is coming across the same obstacles as I've imagined I'm going to encounter and that I might even have solutions to some of the things she never resolved.

Another example would certainly be Simon McBurney's *Encounter*, a theatre masterpiece that serves to me as evidence of the huge potential this has. It is fair to say that I strive to create something similar, yet obviously quite different. He and his team made a show that is supposed to be toured in theatres, I imagine what I'm working on here might be a lot more flexible, something that could be experienced anywhere. Maybe it wouldn't even have a live performer at all, it would be just augmented audio that people get to hear, possibly even something that can be streamed online.

Having said that, at one point I was also looking at what the researchers at Ehrsson labs are doing. I considered not doing only augmented audio, there might be other senses to trick as well. They study the perception of one's own body and they're even able to recreate a form of out of body experiences using visual and tactile deception. VR headsets and rubber limbs is apparently all it takes for one's brain to get mixed up.

David Byrne's *Neurosociety* is an excellent example of how this neuroscience could be used in the form of an exhibition, an immersive theatrical experience. Groups of ten visitors are guided through four separate spaces, where they are embodied in a doll, their hands grow to a vast size, accurately predict election results of fictional politicians, witness moving objects freeze and discover how fair and trusting they are with others. Rather than read about cognitive behavioral science, visitors will experience it for themselves, in a visceral and entertaining way. Each room becomes a stage that mirrors a strange, yet familiar, series of people and places.

The second presentation

This here was a huge leap. Not only was I taking my project out of the

safety of the University straight to a former prison in Bristol, UK, I've also decided not to even bring my ladders this time. I was invited to be an artist in residence during the Bristol Circus City festival, but to make things worse. I figured that instead of trying to recreate what I've already done earlier, use the sound of my circus equipment as the main source of audio material that I then get to manipulate, I'd just use the space and its ambience instead.

It has led me to create something that is even more site-specific. An audio-walk that is designed around the impact the space itself has on us, the way it makes us feel. It is supposed to be experienced by a group of 3 people at a time and what makes it unique is that my voice now guides them along different routes. They will meet occasionally, interacting with their surroundings to improve the experience for one another (e.g. when a door needs to be closed in a prison cell, I can get one of the other participants to do it, thus creating a much stronger effect on the "prisoner").

I got to explore how the environment influenced the participants and tried to transform their perceptions through the use of audio recordings I've made in different parts of the city. In a way, I wanted to see if I could get the listeners to feel as if they were elsewhere, almost as if they've "escaped" the prison.

I ended up sharing my work with the MA students at Circomedia, got them all to do the audio-walk. I could see that there was a lot of confusion, people weren't really sure what to think about it just yet. It's obviously too early to be inviting the public to participate. It's the only way though to get ahead, I need to be testing it out constantly, seeing how people respond. I was very pleased with the interactions of the participants. They all went on slightly different routes through the space, but the most interesting part by far was when they were asked to do something that effects each other. That's most certainly where I'd like to take it next.

Once again I've made something that feels like an intimate conversation with my audience, I'm addressing them directly, talking to them as if we've

known each other for a long time. It creates a sense of trust, I can take them places where they wouldn't usually go, ask them to do things that they might not normally do. It pushes the boundaries of what they originally thought they were capable of, gets them to go out of their comfort zone. It is something that I associate with circus too, testing one's limits.



Pic.06 Audio-walk at a former prison in Bristol

"Prison walk A" - USE HEADPHONES

<https://youtu.be/E7rxUJd9ses>

Third presentation

In Bristol I've learnt that I can now create work that can happen without me even being there, I can design these walks so that they are self-standing. The audience performs for themselves and also for one another. In the future I'd like to make these groups bigger, make their involvement more complex, giving them more space to interact and even improvise. By creating more

than one version of the audio recording, I could have each person listening to different instructions. What if instead of three participants I'd have thirty? I could tell 29 of them to sit down, the one left standing would become the centre of everyone's attention, the performer. I could make it a lot more open-ended, get some people to copy one another, until it isn't even clear who is still receiving new audio instructions and who is just making it up as they go. Improvising. Just need to figure out which direction I want to take this. Is it the thrill of circus? Or make it again about my expertise, get the participants to be in/out of balance?

If I develop this further I might even be able to make this happen so that's it not only working without me being there but maybe even with the participants themselves not having to be in one specific geographical location. It's exciting for me to think that now that I've left Bristol people can still experience my work, but that's only the people in Bristol. What if it was instead designed to be in a place that can be also found elsewhere? Train stations, parks, libraries etc. I could still tell the people to take a book from the 3rd shelf or hop on the first train that leaves from platform 2, but they could be in any library/station in the world. Maybe even have them self-document their journey somehow, to give me an idea of where my recorded instructions have brought them.

I'm going to have to figure out a way how to get people to participate in this experiment of mine. Whether it's overcoming the technical difficulties I'm bound to come across, people not being able to access the files, internet connection being unreliable, or just giving each participant my own set of headphones/MP3 players. Besides the logistics of it all, the more interesting aspect of this experiment will be to try and figure out how to gradually introduce the participants into what's about to happen, make sure to gain their trust first. Just like in Janet Cardiff's work, these recordings become an exercise in trust between the artist and the participants.

It isn't clear what happens next, I'm going to try and see if I can get people to feel the way circus makes them feel.

I'm working out the script and realising how it's just like Richard Talbot says: "Immersive performance may derive much of its dramatic tension from awareness of the insecurity and potential collapse of narrative and illusion, an awareness shared by professional performers and participants within the event contract." I'm having to take my chances, rely on the audience to be there and step up into the role of the performer.

Let's go back to the opening words, you were reading what happened during the most recent presentation. Since then I've sent these recordings out into the world, wanting to see how people respond to them elsewhere. I already have a few groups, I'll soon get to recreate my circus in Berlin, London & Melbourne. I've now built in a discussion into the recordings as well, right at the very end, people are asked to sit around in a circle and share their thoughts. As this is going to be filmed I'll get direct feedback from each of these performances.

Just from the first two days I've already had such unexpected results, these are some of the things I might want to try next:

- I've seen it can be done for groups, but there could also be versions for only one or two participants at a time. They could interact with people that aren't participating, people who aren't listening to any instructions.

- Different languages, allow people from different backgrounds to share the same experience

- Most participants seem to be quite ready to follow this "voice of God", they listen to it and play along, giving up all responsibility/concern for what happens next. They find it relaxing, almost therapeutic. Maybe one day it could be used as a form of therapy for people who've experienced trauma?

- Has loads of potential as entertainment, there could be various versions of the recording for people to listen to while sitting at home on a rainy day, could be site-specific and taken to theme parks, museums, anywhere where people go to have fun.

Audio-nce Participation (Melbourne)

<https://youtu.be/O-Zli-bvqcY>

Conclusion

At the very beginning, during my first presentation, I deconstructed my circus equipment. Now it seems like I've ended up deconstructing myself out of my circus too! Funnily enough, I end up using more technical skills (audio this time), but that led to outcomes beyond the technique, the artistic, the poetic. The question of learning new skills has become essential to my research process. It was still about technique, but an altogether different type of technique. There are no instruments, no circus body, no space anymore. I find this realisation liberating, it opens up a lot of new possibilities for exploration. Still being able to create the way one feels when watching a circus show, but now it's all done through audio. My circus has taken the form of an mp3 recording. It can be sent by email, it can be reproduced without me having to be there in person. A new way of doing circus.

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