

MA Commercial Music Producer

Tileyard Education

University of Wales Trinity St. David

Creation Element C3 - ADAD4004_LON

Reflective Commentary

“Using different forms of the studio as an instrument.”

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Introduction

Over the past few months, I have been exploring the different forms of which a studio can take place, and experimenting with various practices of using these studios as an instrument. Within this essay, I will be reflecting on this project whilst offering an insight into these practices: demonstrating my influences and inspiration, discussing the challenges I faced along the way, and the skills I gained whilst overcoming these issues. Within my conclusion, I will explain where I can apply these skills in the future whilst reflecting on the overall project.

Summary of Project

Horne mentions that “ever since the earliest recordings, capturing a live performance on cylinder or disk required subtle manipulation of the recording equipment by the operator, even when there were few possibilities for manipulation” (2004, p.704). Artists and producers such as: Lee ‘Scratch’ Perry, Conny Plank, Brian Wilson, and Daphne Oram, utilised their own techniques of manipulating the studio to create and alter sounds. Instead of playing a traditional instrument such as a guitar or drums, they perfected their techniques within a music studio and turned the mixing desk, tape machines, and out-of-board gear into an instrument. For the creative project, I came up with eight different original musical compositions with each track exploring a different interpretation of using the studio as an instrument. This ranges from manipulating the playback speed of a reel to reel, playing a cassette player, and manipulating rack reverbs by hand within a track. This reminded me that, “The emergence of the engineer, as a technician who oversaw the transfer of a musical performance to a recording medium, marked the beginning of the studio becoming a compositional tool: it was now someone's job to make choices – aesthetic choices – regarding the sound of the recording,” (Ableton, 2016) and so, I carefully made the decision to apply these techniques to each track as they greatly transformed the end result of a composition without the need to add a new synth melody, or vocal line.

Changes from Previous Essay

Whilst the project's goal has always been to explore using the studio as an instrument, a number of changes have been made since submitting my original written proposal. Originally, I was going to focus on the ambient electronic genre as I believed this genre would be the most compatible and forgiving to the most extreme/obscure studio experiments, alongside being the genre I primarily wrote within. However, as time progressed and as I experimented further, naturally I started to produce music that did not fit within this genre. As a result, instead of backtracking and restricting myself and the flow of creativity, I thought it would be best to lift the restrictions and broaden my experimental compositions to any genre. I also planned to do a section elaborating on reamping synthesisers to change their tone, however due to having COVID and time restrictions, I decided to leave this part out and focus on furthering other areas, although I will briefly touch on reamping within the essay.

Manipulating the 4 Track Tape Machine

Whilst the popularity of using a four-track tape machine has become more of an aesthetic decision rather than a necessity since the advent of the modern DAW, its colouration of sound and workflow is unique, allowing a producer unique ways to alter a pre-recorded sound. Douglas mentioned, “we can't all afford a studio tape machine nor even a consumer-level reel-to-reel, but old cassette decks are likely within reach. Cassette saturation is a beautiful thing, particularly on drums, and even more when pushed hard. If the motors are old and wobbly, even better” (2019). In this way, I applied this technique to my track ‘Epoxy’ by recording a track from my modular synth and OP1 onto the four tracks of my Tascam Portastudio as seen in appendix A. The Portastudio has various channels that can be driven to add distortion to the tone, combining this with the saturation and compression of cassette tape to create a warm and fuzzy distortion sound. I took advantage of this saturation by increasing and decreasing the gain throughout the track,

beginning the song with a relatively clean sound due to the low-input, to eventually increasing the gain and adding further distortion resulting in a wall of sound. Fitzgerald (1995) refers to the wall of sound as “the blurring of individual timbres into the overall sound” (p.64), by turning the knobs and driving the preamps I was able to blend the various instruments within the track until they became a unified sonic texture without altering the notes of the instruments. The use of these faders allowed me to control the structure of the track, demonstrating the performability of a 4 track and showing the studio being used as an instrument.

In addition to the layers of saturated piano and synthesisers, I took advantage of the age of my Portastudio. The rubber drive belt that controls the playback of the cassette tape has stretched over the tape machines’ 26 year lifespan, the lack of grip results in the iconic lo-fi tape warble sound, whereby the cassette tape machine shifts slightly in pitch during playback. Whilst often an undesired sound due to its imperfections, I reduced the playback speed on the tape machine to accentuate this audio effect as I believed it added movement to the track and added unique qualities that may not be applicable within a modern DAW.

As tape is a destructible format that gradually decays over time, we can use the fragility to shape the sounds recorded upon the medium. William Basinski is known for his use of tape destruction as an instrument, Battaglia (2012) writes “as the sounds on Mr. Basinski's ageing tapes began to decay, the fidelity of the music--mostly sappy, stringed versions of popular standards--broke down. But it was also transformed into something much more moving, as triumphant orchestral passages collapsed into eerily silent passages of dissolution” . Basinski documents the life and death of tape within the track *dlp 1.1* (Basinski, 2001) as he forcibly takes a passage of audio on tape and allows it to fall apart throughout the duration of a piece, until the listener is left with nothing but the sound of the tape machine itself. This shows the transformation of the tape machine from a playback device and recording tool, to an instrument that changes the dynamic of a piece of music. Within my track ‘Trans Atlantic’, I took inspiration from

Basinski by choosing a heavily worn and damaged cassette tape to record the track on to. The result is a loss of higher frequencies (as seen in appendix b) and a presence of tape hiss that is increased as the track progresses. Jones (2014) notices that “in The Disintegration Loops, we are initially presented with what appears to be an infinite totality (the loop on repeat), which is then disturbed - not by the addition or subtraction of material, but by the lack of anything—the sound of destruction itself”. Thus, by allowing my track to decay with the loss of higher frequencies due to choice of a heavily used cassette, I believe the ending of the piece becomes more impactful for the listener. I performed the track by altering a low-pass filter throughout, thus controlling the amount of tape hiss that can be heard by the listener, showing the performance of studio equipment and its impact on the density and texture of the overall piece.

The use of the 4 track tape machine taught me how to use hands-on mixing in a studio as an instrument by manually using the faders to clip and layer distortion upon tracks to create a dense mix for a impactful final chorus, or pulling back the faders to allow artefacts and a lack of instruments within the recording to make something sound more intimate. Alongside this, embracing filters upon the master bus to shape the sonic details of a track and controlling them by hand allows a humanistic touch to a mix - once again adding further character to a track compared to something that has been steadily automated or turned on/off by a DAW (digital audio workstation).

Resampling within a Software Studio (Digital Audio Workstation)

With the progression of technology, most people can have a powerful yet portable studio within their computers. No longer must an engineer have to carefully experiment with chaining delays, tape tricks, and various out of board gear in order to get a complex sound. Instead, there is now a plugin that is quick and easy to dial up to replicate these techniques. “The idea of the ‘studio as an instrument’ – that creating a compelling musical recording requires more than simply documenting a performance, but rather that

manipulating audio is itself a compositional artform – is one of the pillars of Ableton's philosophy.” (Ableton, 2016). As Ableton mentions, the DAW invites the user to manipulate audio and add effects with ease, without destructively editing the original sounds, this allows us to revisit old studio techniques within a new studio environment, without the large and expensive gear that may have been required to carry out a process forty years ago.

Throughout the track ‘Canada’, I took advantage of the ease and power of the DAW, I initially loaded in a sample of a clip from an old tv advert, then lowered the playback speed to alter the pitch, and resampled it numerous times through amplifier simulators, compressors and equalisers (EQ) as seen in appendix C. This overall process was influenced by Kevin Shield’s resampling techniques on My Bloody Valentine’s ‘To Here Knows When’ (1991), “Kevin started experimenting with a sampler to create some guitar textures for the song ‘To Here Knows When’. This was done by recording lots of guitar feedback to DAT tape, and then turning it into Akai S1000 samples which could be triggered from a keyboard” (Polymath, 2013). In a modern DAW, I can non-destructively edit samples, and completely transform a sound in ten minutes, whereas the techniques Polymath speaks of would have taken numerous hours to carry out given the limitations of technology at the time. Amongst all of this, the ability to recall any previous resamples if a mistake is made is both a positive and a negative thing. Obviously you can undo any errors, however I believe part of the strengths of destructive editing is that it forces the user to delve further into sound manipulation. On my track ‘Stepping Along’, the bass was created using a feedback patch in Max MSP which, upon capturing the sound, I realised a few issues in regards to the tone and pitch. However, I was unable to recreate the exact same sound as the feedback patch was generative, therefore I decided to embrace the Kevin Shields technique of destructive editing whereby I loaded the sound into my SP404 sampler (Appendix D) and began resampling the audio without saving any prior versions, causing me to carve away at the tone using distortion and EQ’s until I had found a sound I was happy with. I believe mistakes give a unique characteristic to a sound and using the studio as an instrument to carry out destructive editing is a technique that has partially been lost since the advent of the DAW.

The track 'Stepping Along' was also influenced by traditional studio performance techniques within a DAW environment. I explored the techniques of Conny Plank, a producer and engineer who developed techniques of using the studio as an instrument that were crucial to the sound of countless 70's Germany bands such as Neu!, Kraftwerk, and Cluster. When speaking about the work of Plank, Everly mentions (2019) "He saw the studio as an integral part of the music that was being made. Sounds were warped and treated, tapes and instruments were manipulated, notes were sampled, replayed and twisted, physical space itself would become part of the music he helped create." . Plank's techniques involved the resampling of instruments, reversing entire guitar tracks, long tape loops of single notes, and playing the phaser on a track to name a few. Neu's Rother (2014) recalls "In 'Halogallo,' for instance, maybe you will have recognized that some of the guitars are played backwards, and so I was in the recording room doing an overdub guitar, and Conny Plank decided to turn the tape around, so everything was running backwards, and whether he knew it, I don't know, or not... I love everything music that runs backwards or is slowed down, and even better, slowed down and running backwards". With the development of the DAW, similar to Kevin Shield's work prior, we can now take the long resampling processes and carry them out at the click of a button. The ease of software like Ableton allows me to be more experimental and creative with production as I know it's a quick process that can easily be undone such as reversing phrases, twisting samples, applying phasers to the master bus, or creating long loops of single notes.

Within 'Stepping Along', the influence of Plank's techniques of resampling and reversing can be heard within the intro as I take a recording of me jangling keys, and proceed to stretch and reverse them to become a strange stuttering percussive layer within the track. Alongside this, I applied a more 'modern' version of Plank's audio manipulation as heard on the synthesiser at 1:40. Instead of pitching it up by increasing the speed, I used Ableton's pitch warp on the beat setting to resample the synth recording an octave up without changing the length of the recording (Appendix E). As a result various granular audio artefacts are introduced and the tonality of the synth completely changes, thus showing the reapplication

of traditional studio instrument techniques within a new modern setting.

Through exploring resampling and heavily adding effects to tracks, I've learnt that the ease of using a DAW can be both beneficial in terms of speed and variety of effects, yet hindering in regards to easily undoing mistakes and getting carried away. The control the DAW gives the user permits them to tweak every parameter with ease, allowing them to use the studio as an instrument in ways it could never have been used before the creation of the DAW. This then creates new sounds, new techniques, and sets the bar of entry for studio manipulation extremely low for new users.

Hardware Equipment as an Instrument

Before the DAW was invented, studios were composed entirely of hardware equipment, ranging from mixing desks, tape machines, and rack effects. Instead of automating a delay's time by drawing in a value, or changing a parameter on a rack reverb via MIDI, pioneers such as Brian Eno and Lee 'Scratch' Perry altered these values by physically turning a knob or adjusting a slider at the key moment in a track. When talking of Perry's techniques, Mcleod (2003) is quoted as saying, "to some extent the studio, with its mixing consoles, microphones, effects processors and multiple-track tape recorders, is literally a music machine - a machine or space ship that Perry piloted to explore sonic alien worlds" (p.342) Whether it was Perry controlling the amount of delay feedback to create the classic dub sound on 'Scratch the Dub Organiser' (Lee "Scratch" Perry, 1988), or Eno's adjustment of delay to control the sounds of the tape loops on Ambient 1: Music for Airports's '2/1' (Eno, 1978), this hands-on approach added a humanistic feel to the production of a track and perfectly demonstrates using a 'studio as an instrument'.

My original plan for the track "blossom momentum" was to record all of the tracks, take them into Tileyard's studio, assign a fader to each group of instruments, and then use various aux sends with guitar pedals to gradually apply distortion, delay, and reverb, similar to Lee 'Scratch' Perry. I would then print

the final result to tape so that I couldn't make any further changes. However, due to the time constraints with using the studio, only having a mono tape machine, and grounding issues with the guitar pedals causing unwanted noise within the track, I decided to carry out a similar approach using the rack gear I have in my home studio.

I sent the vocals through the Tascam Portastudio to add some slight saturation and EQ, I then used an auxiliary send to run the vocals through the Alesis Quadraverb for a plate reverb before finally sending the wet signal to another input on the Portastudio, as a result I could ride the fader to adjust the reverb levels. Sweetwater (2004) describes fader riding as “the act of constantly monitoring and adjusting gain as necessary during the recording process to prevent overloading the recorder. This is usually performed on the faders of a recording console.” The recording took three attempts before I eventually got comfortable with riding the fader, with previous takes being too quiet or having too much reverb at the wrong moments. With the final take, I lowered the vocal reverb during the quieter moments of the track, increased it during the louder moments (such as the chorus), before eventually overloading the preamps in both the quadraverb and portastudio whilst increasing the higher frequencies through the EQ to create distortion in the outro of the song. This riding of the fader was a technique I learnt from Lee ‘Scratch’ Perry as he used it on reverbs to manipulate the stereo field of vocals, the adjusting of a fader throughout a track to perform a piece of music is another example of using the studio as an instrument.

Returning to Brian Eno, his philosophy of using the studio as an instrument has always been greatly influential to my work. Siepmann (2010) describes one of Eno's processes whereby he “acts as a guardian or a monitor of the evolving aural mass, maintaining the consistency and microscopic growth of the environment emerging from the system by inserting slight deviations in the system” (p.179). This concept of stepping back and observing the generation of music, whilst only adding small changes, is something I frequently apply to my modular synth work and as a result laid the foundations for the track, ‘Gaussian’. After creating a generative patch on my modular synth, I took to playing the studio in order to

give the song some structure. Influenced by Eno, I limited myself to a delay pedal and my Quadraverb reverb (Appendix F) as the only parameters I could change on the masterbus of the track. I initially struggled with being too manipulative and hands-on with the effects, resulting in the piece descending into chaos. However, using the hardware equipment and looking away from my DAW, I was able to listen closely and use gut instinct and feeling to compose the track. Whilst I was using the hardware in a studio as an instrument in a similar way to 'Blossom Momentum', the results of Eno's influence of subtlety with effects led to a completely different sound in 'Gaussian', thus demonstrating the versatility of certain studio performance techniques.

The tactile nature of turning a knob to automate a delay or reverb effect is both efficient and provides a humanistic feeling to a track. By limiting myself to using just the quadraverb or delay to transform a track, I've not only learned more about my gear, but also more about the track, providing skills that will be applicable to future songs. By using the hardware as an instrument, I found new sounds that I previously didn't know I could create with the equipment I had and it was quicker and more responsive than using a DAW to alter the parameters within the song.

Reel to reel as an instrument

As I've mentioned throughout this essay, early practices of using the studio as an instrument relied heavily on tape techniques. For my final process, I wanted to look at manipulating a track using a reel to reel recorder in order to explore these techniques from early experimental music pioneers such as Daphne Oram and Pierre Schaeffer. In a BBC radio show the techniques of Daphne Oram are described as follows: "You take a sound. Any sound. Record it and then change its nature by a multiplicity of operations. Record it at different speeds. Play it backwards. Add it to itself over and over again. You adjust filters, echoes, acoustic qualities. You combine segments of magnetic tape. By these means and many others you can create sounds which no one has ever heard before" (Private Dreams and Public

Nightmare, 1988). Stringing together multiple tape machines to create strange delayed sounds to add to her library, and composing scores using a single sine wave and multiple DIY filters, Daphne Oram's pioneering work at the BBC Radiophonic Workshop in the 1950's not only laid the crucial foundations of modern day electronic music, but also demonstrated early techniques of using the studio as an instrument.

I took influence from Daphne Oram's tape machine techniques within my track 'Falling Out Of Loop', I recorded a short piano composition to four different tape machines (Appendix G), and allowed them to play back the piece at half speed - completely changing the tonality and sound of the track. Following this, I re-amped the various loops and I used a variety of filters to remove lower or higher frequencies, carving space for the different forms of the piano and changing the tonality of each track. Finally, due to the age of the reel to reel motors, the loops naturally fall in and out of phase with each other because of the varying playback speeds, resulting in delays similar to that of Oram's work. The manipulation of the reel to reel, and turning its imperfections into a composition tool, demonstrates the use of a piece of studio equipment as an instrument.

It's impossible to talk about tape machine tricks without referencing Pierre Schaeffer. Similar to Oram, his studies into tape within the 1940s and 50s laid the foundations to electronic music. Patrick (2016) writes that, "during his work on 'Etude aux chemins de fer' Schaeffer discovered some of his most trusted techniques for transforming field recordings into pieces worthy of acousmatic listening. Slowing the recordings down to half-speed, repeating them in a loop, rearranging their fragments at odd angles — all these techniques showed promise at isolating what Schaeffer called the 'in-itself-ness of the sound'.". This influenced my choice of manipulating synthesised bird sounds on 'Falling out of Loop', after creating a bird-like patch on my modular synthesiser I found I could transform the sound by recording it to a tape loop and pitching it down an octave, the result is a change in tonality and adds almost a percussive backdrop without removing the presence of the piano, combining this with the hiss of the tape results in a wash of noise that adds depth to the piece.

The influence of Pierre Schaeffer informed an additional piece called 'Interlude'. Whilst initially I wanted to embrace techniques of Schaeffer by building a non-ambient, percussion heavy, piece of music that heavily featured tape loops, I found difficulty in splicing the tape loops to a perfect size so that they would remain to a fixed tempo and length. I overcame this issue by recording sections of the tape loops into Ableton and cutting them down to fit to the tempo, therefore still using the tape machine as an instrument. The main reversed, swelling chord within this track is one of these aforementioned tape loops.

Whilst not known for using a reel to reel, and arguably more of a DJ than a producer, I believe the work of DJ Screw demonstrates using a studio as an instrument, although his work is often overlooked. Serwer (2010) writes "Sometime around 1990, a young hip-hop DJ named Robert Earl Davis, Jr decided music was just too fast for his liking. Using the pitch controls on his turntables, he began slowing records to preternaturally slow speeds, augmenting his mixes with smooth cuts and slurred commentary that sounded as if delivered from beyond the grave.". Pioneering his 'chopped and screwed' sound, Screw would produce and remix tracks for artists within the Houston hip hop scene; not only dropping the speed using a turntable, but further altering the sound using the rack mounted Alesis EQ and resampling using the SP-1200 to create a slurred, heavy, sound. The work laid the foundations to the popular 'Slowed and reverbed'(Cush, 2020) internet phenomenon, the 'vaporwave'(Arch-Music, 2021) genre, and much more. Taking influence from Screw, 'Interlude' was initially 25% faster than the current version. During experimentation, I attempted to slow the track using the reel to reel to see how far I could manipulate it using studio equipment, however the only available speeds were half-speed and quarter-speed, both of which I believed sounded too extreme and lacked punchiness due to the stretching of the percussion's transients. I then loaded the track onto my cassette deck, reduced the speed by 25% (Appendix H), gradually boosted the lower frequencies when the percussion was introduced, and manually increased a low-pass filter during the section at 1:41. The speed decrease lowered the pitch of the overall track and added a slight 'chopped and screwed' sound, whilst the low frequency boost kept the depth of the

percussion, thus showing once again the use of studio equipment as an instrument.

Through limiting myself to just reel to reel, I got comfortable with being more extreme with pitch shifting techniques, and using the studio as an instrument to process a song after I initially thought it was finished.

I like to consider this approach as doing a remix of a song before it's completed, allowing me to understand my choices behind my mixing better whilst also experimenting and finding new ways to approach the song.

Conclusion

Upon reflection, the changes, issues, and difficulties with exploring these studio processes have led to happy mistakes and taken me in unexpected sonic directions within my production. I've learnt that recording instruments and the notes played is only part of the compositional process, creatively mixing and experimenting with using the studio as an instrument opens up a completely new way to compose and transform a piece of music. Whether it's using a reel to reel to drop a track to half speed, manually tweaking a delay pedal to perform on top of a track, or resampling sections of a track, these processes open up a range of possibilities to alter a track after the initial composition process is done. The DAW itself is an incredible instrument, by reducing the size of the studio to where it is now in a laptop, and with the ease and power of most modern computers, using the DAW as an instrument creates endless possibilities. However, I also believe nothing is as satisfying, inspiring, and tactile as using a hardware tape machine, or rack effect to manipulate the playback of a track.

The reason why I undertook this project was partly to build upon my own body of work as a large piece of my working portfolio consists of short compositions and sound experimentations for Instagram under the name 'Robinson's Village'. By recording my techniques of using the studio as an instrument, I can not only remember them for the future, but also demonstrate to people who follow me that they may take

inspiration and build upon these techniques. Alongside this, I wanted a handful of tracks to release under the 'Robinson's Village' name that accurately represent the work that I do, thus leading to me creating tracks that are a combination of synthesiser-based music and studio experiments. Both of these reasons behind this project are areas I've outlined that I would like to develop upon within my personal development plan (appendix I).

As mentioned throughout the essay, there were aspects of the experimentation that I had to overcome, whether it was using Ableton to trim the tape loops on 'Interlude', having to adapt and use the quadraverb and portastudio instead of the Tileyard studio's desk and various effects pedals on 'Blossom momentum', or experimenting with different tape playback speeds on 'Interlude'. I eventually overcame these challenges and as a result learnt more about my equipment, and how adaptable and interchangeable these studio performance techniques are. No matter the size of the studio or the equipment within, there is always a way to turn it into an instrument when producing.

In the future, I would like to build upon my exploration of using the studio as an instrument. I would like to explore Eno's use of tape loops on *Music for airports* by setting up multiple tape machines with 20-30ft long tape loops to aid in the composition of music, alongside perhaps building upon my delay/reverb hardware experimentation by composing with an effect on each channel of a track as opposed to one or two. On top of this, I want to expand on my tape playback speed experiments, by potentially having an instrument or an entire track that changes speed multiple times within a song, causing a change in pitch and timing.

By learning a range of studio techniques from different genres such as: ambient, dub, musique concrete, and hip hop, and applying them to my own electronic music, I've created a range of new sounds and tools that I can apply to my work in the future in order to create unique sounds as highlighted in my professional development plan (Appendix I). Schütte (2020) writes "Hütter and Schneider translated

Stockhausen's groundbreaking approaches to composition and electronic music into the musical grammar of pop. What often sounded harsh, abstract and elitist when utilised by the composer was transformed into avant-gardist yet alluring pop music by the band" (p.89) by exploring different techniques outside of our usual genres, we can grow and develop the genres we compose in.

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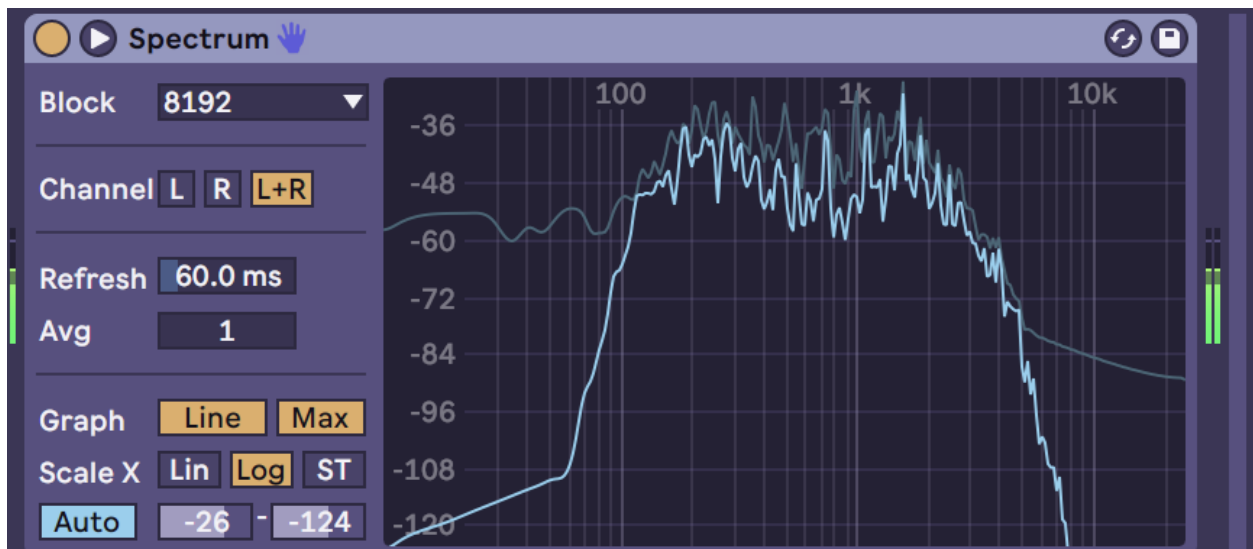
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Appendix

Appendix A - a picture to show the recording of tracks onto the Tascam Portastudio



Appendix B - A picture showing the frequencies recorded onto the cassette



Appendix C - The signal chain and effects applied to the sample in ‘Canada’



Appendix D - The SP404 sampler used to process the bass on ‘Stepping Along’



Appendix E - Pitching samples up an octave using the ‘Beats’ transpose, to introduce artefacts to the sound



Appendix F - The quadraverb, used to add reverb through all the tracks



Appendix G - The Uher reel to reel and circuit bent cassette player used to change playback speed



Appendix H - The pitch knob on the tascam being reduced, thus slowing the playback speed.



Appendix I: My Professional Development Plan

SWOT Analysis - Applying 'using the studio as an instrument' to my career	
Strengths	Weaknesses
• Interested in unique sounds • Already have a large portfolio based around new and old techniques • Experience with using certain pieces of hardware equipment to recreate old techniques • Creative misuse of technology	• May not go into enough detail learning a technique • Sometimes may sound bad or too experimental • Don't have the expensive tape delays that the artists may originally use • Some techniques take a long time to do and are very easy to make mistakes with, potentially ruining a song
Opportunity	Threat
• Unique and 'signature' sounds means people will want to collaborate for a particular sound • Fans of the artist will be interested • Plenty of content for social media • Further build upon my portfolio	• Gear Acquisition Syndrome (GAS), makes me want to spend more money that I don't have • People on the internet disliking the posts • Niche work - not for everyone

Short Term (6 Months, early 2023)	Medium Term (1 year, mid 2023)	Long Term (3 years, 2025)
1. Release an EP centred around using the studio as an instrument	1. Release an additional EP and 3 singles exploring studio techniques further	1. Make a sustainable income from producing content that centres around music equipment experiments
2. 15min long YouTube videos documenting these experimental studio processes	2. Release a plugin/kontakt instrument based around a studio technique to generate sound (feedback in a desk?)	2. Have a string of successful ambient/experimental electronic releases (10,000+ streams on most songs)
3. 30+ Instagram/Tik Tok videos documenting the processes	3. Perform live using multiple pieces of equipment that are influenced by these experimental studio techniques (multiple tapes, reel to reels, hardware delays, etc)	3. Be working with companies developing music equipment

Strategies - How will I achieve these goals		
1. Get album artwork Upload to distrokid/bandcamp	1. Research more studio techniques Dedicate more time to record more music	1. Reach out to more companies for collaborations Carry on building the relationships I already have
2. Start to film the video Plan a script/organise how I'm going to produce/shoot the video	2. Begin to explore possible instrument ideas Refresh my skills on using Kontakt	2. Carry on developing a fanbase, and submit to more playlists
3. Cut up aspects of the above YouTube video Record short clips for Instagram/Tik Tok and add them to my current queue	3. Practice my current live set and slowly begin to introduce more pieces of equipment as each show goes on	3. Build more connections with companies I'd like to work with through social media and events
Resources needed		
1. Already doing this independently	1. Chat to people who have also studied other people's studio techniques/engineers for inspiration	1. Ask Tileyard or producers if they have any contacts I could get in touch with to expand upon this
2. Might be worth chatting to people that are already active on YouTube to get tips	2. Ask Tileyard to put me in contact with any alumni/people who work within this field	2. Already doing this independently
3. Already doing this independently	3. Already doing this independently	3. Already doing this independently
How will I measure success?		
1. If my music is released and I receive higher streams than my previous releases	1. If I manage to actually release and create this music as I often let music sit on my hard drive for months	1. If I'm able to reduce my hours at my other job as my freelance music work is succeeding
2. If the video gains 1000+ views and if the people that watch the video	2. If I manage to create the instrument and my peers enjoy using it	2. Achieve 10,000 streams on most songs

learn something from it		
3. If I reach 20,000 followers within the next 6 months	3. If I manage to create a live show that has 10 different pieces of equipment at once	3. I'm able to contact and source sponsorship/equipment from 10 different companies