

Studio Engineer

M4X01561

Mmus Creative Music Technology

Darren English

1807550

Multi-track Project Report

Into the Fire – Daz English

Most of this track was recorded in Studio 1, BBC Building, Alexander road, Swansea. I was able to record some Bass guitar and guitar tracks at home

Teamed up with Timothy Cromarty.

Writer: Daz English. / Bass: Daz English / Guitar: Daz English / Vocals: Daz English

Drums: Rhodri Thomas

Again, the most difficult decision I had with this project was which song I should record. I wanted to do something fresh off the cuff for a change. I noticed how different I worked this time around. Unlike on my last assignment, this time we recorded the drums first. The instruments I used in this project were a Fender Telecaster, a Fender Jazz bass and a Fender Stratocaster. My reasons for my choices: -

- I wanted to try out the Telecaster instead of the Stratocaster for a change and I was happy to choose this guitar for the main rhythm section.
- The Fender Stratocaster is so versatile. The melodies and harmonies really complimented the Rhythm guitar sections better than I had en-visioned.

- I went with the Fender Jazz Bass purely because it is rock solid, also very comfortable to play and I have never had anything to complain about with them.

Guitar Amp, Mic & Direct Input

Rhythm guitar (Fender Telecaster) Direct Input

Rhythm guitar (Fender Telecaster) Shure sm58

Lead guitar (Fender Stratocaster) Direct Input

- SM58 – Dynamic
- 70 watt Fender Mustang guitar amplifier
- Direct Input into Focusrite audio interface

Bass Guitar & Direct Input

- Direct input into a Focusrite audio interface
- Fender Jazz master Bass

Microphones & Direct Input

When we were setting up the microphones in the studio to record the guitar tracks, I wanted to try something I had not tried before so I decided on the Shure sm58 which was angled at 90 degrees and facing the amplifier using the off- axis technique.

Although we used this set up, I also wanted to record many guitar tracks track Direct Input just so we could capture a nice variety of clean guitar tones that could be enhanced when mixing the track later on.

Electric Guitar

I set up one Shure SM58 dynamic microphone near the guitar amp, off- axis. I also ran through direct input to experiment and to see what other tones came out of the recording. This technique was experimental. We recorded 2 different lead guitar tracks and planned to then chop and edit them during the mix. After listening back to the guitar track that I recorded with the Shure sm58, I decided to not use it eventually as it sounded way too muddy for me personally. It may have been down to the type of room I was recording in. I have really enjoyed recording using direct input on this project and working my way through experimenting with the pedalboard and amp designer in Logic pro x.

Bass Guitar

The bass was tuned to a standard tuning and I mainly played only the 1st, 3rd and 5th notes of the chords. When setting up the microphones and the amp in Logic pro x, I chose the Logic (Modern) amp and 15inch (Modern) cab with a Dynamic 421 microphone positioned on - axis.

The majority of Dynamic microphones are tough and robust as far as sound goes and they are built to deal with ridiculously high sound levels, which is ideal if you are recording drums and guitar and bass amps. Dynamic microphones do not require any phantom power as they are passive. If you were to apply phantom power to a dynamic microphone, you would have

a feedback sound and the worst that could happen would be if there was an imbalance of some kind in the of power, then that could damage the ribbon. It's wise to avoid doing this. The SM58 was the only microphone used in this project.

Condenser microphones have an electrically charged diaphragm. They have active electronics that need an external power source and they would also require phantom power to operate. The condenser output has a very high impedance and would require a powered circuit to reduce the impedance.

Drums

When we were setting up the microphones on the drum kit, we used clips for the tom mic's and stands for the other mic's. The snare drum had a mic above, we were contemplating setting a mic up positioned under the snare also but we decided against it. It is definitely something I will want to try soon though. We also applied the "Wurst" method, taking a single microphone and placing it between the toms. It totally transformed the character of the drum sound. The "Wurst" technique was popularised by producer/engineer Moses Schneider from the Pixies.

Tuning the Guitar

- Standard guitar tuning

E / A / D / G / B / E

The Mixing stage

When it came to mixing my track, I felt slightly out of my depth at first as I had never mixed anything like this before. I knew that I wanted a clean sound, some space in the verses, with more drive from the Bass and the Guitars in the Chorus's. I put one of the rhythm guitar tracks through a Direct input using a clean effect with just a slight reverb and delay. When it was time to EQ, I equalised each track individually. I lowered the gain levels, set the Low and Middle frequencies to 7 and the Treble down to 5 to take out some of the high frequency sounds. I did add a lot of compression to the Bass guitar, just to add some warmth and to stop it from "peaking" in parts. I also added some more compression to the guitar tracks in order to compress the stronger peaks. On both the bass, and guitar tracks, I set the compressor up to have a fast attack and a fast release time so it could respond when the signal hit the threshold to make sure that nothing was 'clipping' throughout the track.

I added silver reverb and stereo delay effects using logic to all of the electric guitar tracks. I also used a limiter on the lead guitar tracks to keep the signal down throughout.

I panned the tracks so that different guitar parts were given a sense of space within the track.

When I was mixing the track, I wanted a lot more energy in the chorus parts than in the verses. You can hear that the main hook that is played on electric guitar building up to the choruses. You should be able to also hear that the drums come up by a few decibels in the chorus. I wanted to try this technique as I had not experimented with it before.

I used a bus for the first time on this project. When we use "bussing", you send multiple

recordings of a single instrument to one auxiliary channel. So, from that point onwards, any plugin or effect that you decide to add will affect each of the recordings. I feel that by using the bus, it helps me to “glue” the tracks together better and it meant that I did not need to use as many plugins.

Due to the electric guitar being a mid-range instrument, I did not feel that I needed to keep much low end or top end either when coming down to the EQ stage for the guitar parts. I wanted to cut the top end in the hope that I could push the guitars back a little, to be able to create more depth in the recording. I thought that if I could cut a lot more off the top end of the rhythm guitars, the lead guitar hook line would stand out better.

Evaluation

I would not say that I am hugely disappointed, but not exactly very proud of it either and I know I can do better. While working through my assignment, I was shocked at how much I've learned this past year. In the result, I have also noted so many things about the decisions that I made and how I would do things differently next time. I seem to sometimes spend too much time on mixing the beginning or middle areas. In result it did not leave me with enough time to finish mixing by the deadline. I think I spent longer than necessary on some parts, which did not leave me with enough time to record vocals either. This is an area on where I think I need to focus on and learn from for the future.