# Joonas Holmén + The Lossy Codecs "Sterner Stuff"

The Composing, Performing, Recording, Mixing and Production of an album

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## Abstract

"Sterner Stuff" is an alternative rock album I have created under the name "Joonas Holmén + The Lossy Codecs". I composed, recorded, mixed and produced all ten songs on the album. I also sang and played all the instruments other than the drums. Some additional instruments were also played by featuring artists. The music on "Sterner Stuff" is inspired by the artists I have listened to including The Smashing Pumpkins, Dinosaur Jr and Pedro the Lion, to name a few. While creating the album I aimed to make an album with personality, excellent songs, heartfelt lyrics and interesting mixing decisions. I wanted the end result to be the best representation of the songs I have written, and I also wanted my persona to come across clearly.

In the written part I explore and analyze my musical tastes, ambitions, my past in music and myself as an artist. I detail the composing, recording, mixing and mastering of "Sterner Stuff" and analyze the finished album.

## Abstrakti

"Sterner Stuff" on vaihtoehtorocklevy, jonka olen tehnyt käyttäen nimeä "Joonas Holmén + The Lossy Codecs". Levyn kaikki kymmenen kappaletta ovat minun säveltämiäni, nauhoittamiani, miksaamiani ja tuottamiani. Sen lisäksi lauloin levyllä, ja soitin kaikki instrumentit rumpuja lukuun ottamatta. Levyllä myös vieraili muutamia muita soittajia. Musiikki "Sterner Stuff" levyllä on saanut vaikutteita artisteilta, joita olen kuunnellut, kuten The Smashing Pumpkins, Dinosaur Jr ja Pedro the Lion, mainitakseni muutaman. Tehdessäni levyäni yritin tehdä personaalista äänitettä, erinomaisilla sävellyksillä, vilpittömillä sanoituksilla ja mielenkiintoisilla miksausratkaisuilla. Halusin lopputuloksen olevan paras mahdollinen representaatio kappaleista, jotka olin säveltänyt, ja halusin, että persoonani välittyy levyllä selkeästi.

Kirjallisessa osuudessa pohdin ja analysoin omia musiikillisia mieltymyksiäni, kunnianhimojani, musiikillista menneisyyttäni ja itseäni artistina. Kirjoitan yksityiskohtaisesti "Sterner Stuff" levyn sävellyksestä, äänityksestä, miksauksesta ja masteroinnista, sekä analysoin valmista levyä.

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## 2. Introduction

#### 2.1 Overview

"Sterner Stuff" is my second solo album under the name "Joonas Holmén + The Lossy Codecs". The album is a natural continuation of my artistic career and the musical style is relatively close to my first album "Sunshine and Someone to Hold". The album consists of ten songs, all of which could be categorized 'alternative rock'. More specific genres one could apply are indie rock, noise rock, singer-songwriter, emo and occasionally slowcore. My music is inspired by the artists I have listened to during my life: The Smashing Pumpkins, Dinosaur Jr, Radiohead, Sonic Youth and Pedro the Lion, to name a few. I wrote all of the songs on the album, recorded and mixed them. I also sang and played the guitar, bass and keyboards and was the producer of the album. The album is a culmination of my current artistic vision. On the album the musical and lyrical themes I find intriguing are explored in a myriad of ways.

This document details the process of making "Sterner Stuff" and an analysis of my musical persona is also offered. The following topics are discussed: My musical background, references and artistic vision for "Sterner Stuff", the composing, recording, editing, mixing and mastering of the album. At the end of this document one can read my analysis of the finished album and a list of references, the lyrics and my schedule as attachments.

#### 2.2 About "Joonas Holmén + The Lossy Codecs"

During my teenage years and as a young adult I played in a lot of bands. It was hard, however, to find a group of people as enthusiastic as I was about the kind of music I wanted to make, so many of the projects I was part of ended up being unfulfilling. This was also due to the fact that I was usually the one to do all the work while the other band members showcased their lackluster attitude by failing to show to band practice and occasionally even gigs. It was for these reasons that, in the end, I decided to start making music alone. After all, many of my inspirers had done the same, including, for example, J Mascis of Dinosaur Jr, Billy Corgan of The Smashing Pumpkins and David Bazan of Pedro the Lion, to name a few. I started making music under the name "Joonas

Holmén + The Lossy Codecs", a title which implies that while I am the creative mastermind behind the music, other musicians often contribute too.

"Joonas Holmén + The Lossy Codecs" makes music that I create naturally. Using this name I want to be able to make the music that I just tend to create. It is important to me to craft structurally interesting songs with touching melodies, interesting soundscapes and moving lyrics. A music album is a piece of art in itself to me, and being able to play the songs live is not a necessity. It is important to me that my music sounds original, edgy and I am not afraid to explore rough atmospheres and tough themes. In short, I want to evoke in others the same kind of feelings the music I like evokes in me, be it a song by one of the artists I listen to, or a song of my own. Displaying technical virtuosity is something I am not terribly interested in and perhaps not even capable of doing. I find creativity to be the most important element in any style of music, and I aim to introduce original and creative ideas in my melodies, harmonies, rhythms and song structures.

#### 2.3 Objectives

In "Sterner Stuff" I aimed at making an album in which the songs I had chosen to be included in it, were represented in the best way and as close to my vision as possible. I see a recording as a way of expressing my final vision of a song and the conclusion of the process of creating it. When a song is included on an album, I consider that version to be the definite expression of it, now archived and available for me and others to hear. I wrote all the songs with a guitar and my voice, and both during and after that process came up with ideas considering the other instruments. I wanted to be able to carry out all these ideas in "Sterner Stuff".

Considering the sound of the album more specifically, my desire was to create tracks that have dramatically different atmospheres. I wanted the vocals to sound distinct, the guitars gritty and the drums powerful. I did not want the album to sound muddled, or the individual instruments and melodies to be indecipherable. That being said, I wanted some of the noisier parts to be really 'over the top' and aggressive.

I wanted to create something that I think sounds good, and I tried not to let current trends in music affect me too much. I wanted to make something I was proud of and make artistic decisions I could agree with later on.

### 2.4 Track List

- 1. My Fellow Men (4:57)
- 2. Come of Age (2:53)
- 3. Acid (2:49)
- 4. Solitary (4:23)
- 5. The Measure of a Man (3:24)
- 6. Launching Down on Tracks (4:01)
- 7. Sin (4:02)
- 8. All this Suffering (3:50)
- 9. The Loneliest Guys (4:54)
- 10. Outta Dis World (3:22)

The length of the whole album is 38 minutes and 29 seconds.

#### 2.5 Featured Musicians and Artists

Joonas Holmén - Vocals, guitars, bass, keyboards, composing, recording, mixing and production Matti Muhos - Drums Oiva Ristimäki - Percussion Johannes Tuovinen - Bass on "Acid" Tom Holmén - Piano on "Solitary" Elsi Goesch - 1st violin Josefiina Paasonen - 2nd violin Emmi Hakala - Viola Aino Hannonen - Cello Jaakko Viitalähde - Mastering

## 3. Background

#### 3.1 My Musical Background

I started studying music when I was a small child by attending classical piano lessons. While these studies lasted for about 15 years, my interest very quickly moved from classical music to electronic and indie music. I continued my lessons for the sake of learning about music in general. The theory, technique and other important aspects of music are easy to learn by studying classical piano. Nevertheless, my personal preference in music lied elsewhere.

As a child I listened to a lot of instrumental electronic music. This shaped my sense of aesthetics. Listening to Jean Michel Jarre developed my sense of melodies, whereas listening to Daft Punk gave me some ideas about rhythms and harsher sonic atmospheres than Jarre's lush and beautiful sounds. Robert A. Allen's soundtrack for the MS-DOS game "Jazz Jackrabbit"<sup>1</sup> was probably the single most influential piece of music, and video game music in general has had a profound impact on my compositions.

Much of the video game music made in the early 90's was composed with programs called trackers<sup>2</sup>. These pieces of software allowed a person to create rich musical works out of a couple of short audio samples and an accompanying snippet of code. This was done to ensure a small file size of the end product; floppy disks did not have any extra room for high quality audio. Due to these limitations most of the tracker composed tunes shared some very distinct qualities. The quality of the samples usually was not great, which meant that they sounded quite noisy. I really liked these low fidelity sounds, and that might have been one reason why I started listening to noise influenced rock music later in life. Repetition was also a big part of tracker music, and recycling different melody and rhythm patterns over each other is something I still practice in my work to this day.

In my teenage years I discovered alternative rock and indie music. The Danish band Mew was a gateway for me to learn about many of their inspirers. Bands that I today consider my all-time favorites, like Dinosaur Jr and Sonic Youth, have come to my attention from reading about how

<sup>&</sup>lt;sup>1</sup> Epic MegaGames (March 20, 1994): "Jazz Jackrabbit", computer game

<sup>&</sup>lt;sup>2</sup> Read more: Tracker's handbook, a web page: <u>https://resources.openmpt.org/tracker\_handbook/</u> <u>handbook.htm</u>

much the members of Mew liked those bands. I learned of The Smashing Pumpkins through Mew's online message boards and that band is still one of my all-time favorites, and the one which has taught me one of the most resilient notions I have about music: A song does not necessarily have to sound beautiful to sound good. To convey different emotions it is logical to explore the harsher sounds too, not only the pretty ones.

Most of the artists I listened to as a child and a teenager I still listen to today. That is not to say that I am only interested in alternative rock and electronic music, but those are the genres of music which my musical identity has been molded by the most. My main interest is songwriting. The aspect of a song that is most important to me is not the style of the music, nor the individual sounds, but how its different elements, parts and themes come together. If the song has lyrics, how these elements work with them is also what makes a song enjoyable for me.

I am very comfortable with writing songs. While many musicians focus on perfecting the control of their instrument, I have mostly focused on getting familiar with how to write songs. The process is straightforward for me. I sit down with my guitar and start to play. Soon enough I have a beginning of a song on my hands, from which I build on, moving from one idea to the next, and thus form a whole song. I have done this countless of times, so the process is very fast, and I rarely spend excess time on an idea that is not used on the final piece. If a part I have written does not fit, I am very quick to reject it and compose an alternative one.

While I am composing I start singing melody ideas on top of my guitar riffs. I come up with some repeatable lines, which often give me an idea of what the song could be about. Using those lines I am able to parse together the lyrical structure of the song. I usually write the 'skeleton' of a song in one sitting. This 'skeleton' includes all the different parts of the song (for example, the verse and the chorus) as guitar riffs or chords, the vocal melodies and a lot of ideas about the other instruments. I record them on my phone, and come back to finish those ideas some other day. While guitar is my 'go to' instrument for composing, I do sometimes compose on a piano or some other instrument.

#### 3.2 Reference Albums

"Sterner Stuff" is my second solo album. It was natural for me to approach it from the perspective of what would make it different from my first one called "Sunshine and Someone to Hold". The

most defining differences I was trying to create included the more hi-fi<sup>3</sup> inspired sound, more accessible production, heavier and more rock 'n roll songwriting and more personal and fleshed out lyrics. What I was aiming for sonically on my first album was Pedro the Lion's lo-fi<sup>4</sup> inspired album Achilles Heel<sup>5</sup> but for this second album I selected a couple of very different albums.

Mew's 2003 album "Frengers"<sup>6</sup> was the first and foremost album that I tried to keep in mind while producing "Sterner Stuff". I see it as the quintessential modern alternative rock album. It remains very easy to listen to, but it definitely does not lack grit. I wanted the overall sound of my album to feel like the one on "Frengers", and also to be like the one on Interpol's "Our Love to Admire"<sup>7</sup>. These two albums were produced by the same person, Rich Costey, and while I enjoy "Frengers" more, I find "Our Love to Admire" to be of a more similar sub-genre compared to my own album. Both of these albums are characterized by crisp high frequencies. The cymbals are loud and clear and the hi-hat is pronounced. There is no shortage of power on the lower frequencies, but importantly, they are just never allowed to roam over the clarity of the higher frequencies of the drums and guitars.

I also listened to "Siamese Dream"<sup>8</sup> by The Smashing Pumpkins because I enjoy its interesting sound. Riku Mattila, who was one of my instructors on this recording, noted that compared to newer albums the drums on 1993's "Siamese Dream" were not very loud, but their dynamics were very compressed. I took note and as a result, since I wanted the guitars to be the main attraction, just as on many of the alternative rock albums of the 90's such as "Siamese Dream", the drums on my album are quite a bit lower in volume than on "Frengers" or "Our Love to Admire". In addition to influence of The Smashing Pumpkins, my guitar sound is mostly influenced by Dinosaur Jr. Their modern, post re-union albums like 2009's "Farm"<sup>9</sup> exhibit the kind of overflowing dirtiness I find exhilarating in alternative rock guitars. However, while The Smashing Pumpkins' Billy Corgan

<sup>&</sup>lt;sup>3</sup> "Hi-fi" refers to high-fidelity, as in high-quality reproduction of sound

<sup>&</sup>lt;sup>4</sup> "Lo-fi" refers to low-fidelity and is the antonym of hi-fi. Lo-fi is also a genre of music in which quirks of lowquality sound are embraced.

<sup>&</sup>lt;sup>5</sup> Pedro the Lion: "Achilles Heel" (Jade Tree) May 25, 2004

<sup>&</sup>lt;sup>6</sup> Mew: "Frengers" (Sony) April 7, 2003

<sup>&</sup>lt;sup>7</sup> Interpol: "Our Love to Admire" (Capitol Records) July 10, 2007

<sup>&</sup>lt;sup>8</sup> The Smashing Pumpkins: "Siamese Dream" (Virgin) July 27, 1993

<sup>&</sup>lt;sup>9</sup> Dinosaur Jr: "Farm" (Jagjaguwar) June 23, 2009

mostly plays a Fender Stratocaster and Dinosaur Jr's J Mascis mostly plays a Fender Jazzmaster, I use a Fender Telecaster. This, combined with my perhaps even more aggressive percussive playing style, moves me a little further away from the sounds of those two guitarists.

Radiohead's "OK Computer"<sup>10</sup> and "Mellon Collie and the Infinite Sadness"<sup>11</sup> by The Smashing Pumpkins were my references for musical and sonic diversity, as well as their fearlessness in productional decision making. "OK Computer" is full of sounds blown out of proportion, guitars that are panned very hard to the left or right and experimental effects on vocals. While these were definitely on my mind while mixing my album, I usually try to keep my songs' stereo image quite balanced. These elements can be heard in many Radiohead albums, most of which have been produced by Nigel Godrich. I have listened to them innumerable times and I wanted to make daring mixing decisions akin to those found on the albums produced by him. "OK Computer's" influence can be heard on "Sterner Stuff" in little details, for example, the booming bass distortion on "Launching Down on Tracks" or the echoing guitar jingle in the chorus of "All this Suffering". An example of the diversity I tried to emulate from "Mellon Collie and the Infinite Sadness" can be heard on the tracks "Acid" and "Solitary". While on The Smashing Pumpkins album the songs "Tonight, Tonight" and "Jellybelly" follow each other and feature a change from a lighthearted tone to a much heavier soundscape, my aforementioned songs do this the other way around, moving from a dark and heavy atmosphere to an almost overly sentimental power pop song.

#### 3.3 Artistic Vision for "Sterner Stuff"

#### 3.3.1 General Ideas

I originally planned to include 16 songs on "Sterner Stuff", but eliminated six of them under the guidance of one of my teachers, Riku Mattila. The ten songs on the album focus on personal themes while also mentioning the bigger scope of things. Themes like destiny, unfairness of the world, God and hardship are talked about from my limited perspective. Nonetheless, that does not take away the inconceivability of those larger-than-life concepts. The songs are roughly in order, moving from

<sup>&</sup>lt;sup>10</sup> Radiohead: "OK Computer" (Parlophone) June 16, 1997

<sup>&</sup>lt;sup>11</sup> The Smashing Pumpkins: "Mellon Collie and the Infinite Sadness" (Virgin) October 23, 1995

darker to lighter themes, with "Launching Down on Tracks" being the song that divides the album: Thematically, it is neither dark or light, but rather neutral.

I asked my friend Matti Muhos to play the drums on this album, which allowed it to have much more nuanced drumming, and freed me to focus on interesting guitar parts and production. Guitars are the main focus on "Sterner Stuff", along with the vocals. I feel one of the strongest part of my songwriting is how the guitar riffs and the vocals melodies intertwine, and I wanted this to be presented in a clear, easily comprehensible manner.

#### 3.3.2 Comparing "Sterner Stuff" to my Previous Album

The schedules for both my albums were free form. However, for two main reasons, "Sterner Stuff" was made in a shorter time. Recording "Sunshine and Someone to Hold" took me a little over a year because I played all the instruments and recorded everything in Helsinki, even though I was living in Turku. This meant that I needed to book someone to help me with recording, and that the process was much more tiring because of all the traveling involved. I also mixed the album in Helsinki, which also added to the time spent traveling. "Sterner Stuff" was completed in about a year. The fact that I do not play the drums on this new album is one reason why I was able to work faster and with higher efficiency; I am not a terribly skilled drummer, so outsourcing the drum performances left me with more resources to focus on other things.

The songs on my last album were slower and perhaps less inviting. While the songs on the new album are similar in many ways, it has more of a 'rock 'n roll attitude' on it. There are more fast-paced songs, and I have aimed to keep the listener entertained, even if it is his or her first time listening to the album. My lyrics usually have a lot to do with the darker aspects of life, and are colored by my Christian views of the world, and that has not changed since the first album. The song structure of the first album was organized to transition from the happier songs to the sad ones, and for the new one I had the notion of doing the exact opposite.

The production of "Sunshine and Someone to Hold" was significantly rougher compared to what I did on the new album. The drums on that album were recorded with only three microphones, while "Sterner Stuff" has a much more sophisticated drum recording setup. I am very much a supporter of recordings with personality, and my rough aesthetic sensibilities are certainly audible on "Sterner

Stuff", but the new album sounds more open and civilized. I used more guitar overdubs<sup>12</sup> than on "Sunshine and Someone to Hold", in order to achieve a more impressive usage of the stereo field. I edited and mixed the songs on the new album with a lot more attention to detail. I wanted everything to be under my control and to leave no overly rough edges.

Sonically "Sterner Stuff" is more alternative rock<sup>13</sup> and less indie rock<sup>14</sup> than "Sunshine and Someone to Hold". Specifically, there are a lot more distorted guitars and gut-wrenching drum sounds, elements that I associate with alternative rock. While my emphasis is always in songwriting, one could argue that the songs on "Sterner Stuff" focus on 'taking the listener for a ride' more than the subtler and more toned-down tracks on my previous album. The quieter, more singer-songwriter focused and not-so-daring production of my previous album is something I feel points towards indie rock, rather than alternative rock.

#### 3.3.3 The Lyrics

The lyrics I wrote for "Sterner Stuff" were heavily influenced by 90's alternative rock albums. Both the then prominent themes of 'teenage angst' and the nihilism of so-called 'slacker rock' are exhibited in my lyrics, albeit perhaps both are thought out some steps further. I consider my lyrics to be a natural succession of these popular themes from the 90's. Being a person from the twenty-first century has introduced some existentialism to these themes, however. Rather than thinking "I do not care" or "I have no opinion to express" like a slacker rock artist, my lyrics demonstrate that I am usually pondering whether or not there is an inherent meaning to anything at all. Rather than pondering relationship problems or being a social outcast, subjects of interest to many a depressed teenager, I often offer an analysis of the nature of evil itself; why does it exist?

I do not think those original topics are in anyway inferior to the ones I ponder in my songs, but I cannot but help dig into their essence. I believe this is a quality that is derived from my Christian upbringing and faith. The lyrics in the music I have listened to have sometimes clashed with the

<sup>&</sup>lt;sup>12</sup> "Overdubbing" is a recording technique in which musical content is recorded twice or more and these recordings are layered on top of each other

<sup>&</sup>lt;sup>13</sup> "Alternative rock" is a style of rock music that emerged in the 1980s with many sub-genres and which is inspired by many different musical styles

<sup>&</sup>lt;sup>14</sup> "Indie rock" is a genre originating from the 1980s defined by the sound of bands on small independent labels. It is a sub-genre of Alternative rock.

nature of Christian music and the social conduct of Christians due to the fact that they exhibit a more pessimistic attitude towards concepts such as love, hope and faith. I do not think, however, that those themes actually clash with Christianity itself, at least not always. What I mean by this is that the Bible is very honest about all kinds of feelings a person can feel. Desperation, being discontent and being doubtful are not shunned in the Bible, but avoiding those subjects is commonplace in the Christian people and social circles I have been a part of. Christian music in Finland seems to me to quite pompous, and I think that that hurts that musical scene and the people surrounding it. This has made me a bit spiteful, something which can be observed in my lyrics. As a teenager I would have loved to find Christian music that explores the themes I do in my songs.

A very direct example of both the 90's alternative rock attitude and my Christian faith colliding in my lyrics is in the song "All this Suffering". While the song may seem pessimistic, it is actually hopeful. It references the line *"love is suicide"*, repeated several times in the chorus of The Smashing Pumpkins song "Bodies" from the album "Mellon Collie and the Infinite Sadness". The lines I have written are *"love ain't suicide, sue is lovecide / place your trust in sinners for some waste of time"*. This is meant to mock the line in "Bodies", which is probably talking about the love in human relationships. What I am trying to convey in my lyrics is that while the love of humans might be suicide, the love of God most definitely is not. One is looking for altruistic real love in the wrong place.

## 4. The Making of the Album

#### 4.1 Composing

"Sterner Stuff" consists of ten songs which I selected together with Riku Mattila from sixteen of the songs I had written. These songs were written over a very long period of time. For example, I wrote most of "Acid" during my teenage years, while "Solitary" was brand new when I started working on "Sterner Stuff". I consider creating the more detailed drum, bass, guitar and synthesizer parts to be part of the composing, although some might say that those are a part of the arranging process, and I did most of that during the recording sessions.

#### 4.1.1 My Fellow Men

"My Fellow Men" is the first song on the album because it is the darkest. I wrote the song when I had agreed to play at a concert in honor of a couple of my friends who were getting married and had not written one in a while, so I wanted to write a new one. I had decided that considering the occasion the song should be a happy one. However, an event in my personal life brought me down and I ended up writing the most depressing lyrics I think I ever have done. I did not play the song at the concert.

The first recording of this song in my archives was created on October 11, 2014. I wrote the lyrics at the same time as I wrote the melody and the guitar parts. The song consists of a quiet section, which in itself could be seen as a song with its own verse and its own chorus, and a loud section. The loud part is a variation on the quiet parts' chorus and has a completely new theme. In the middle there is an instrumental segment that divides the whole song. After the loud part the quiet verse is visited once again to end the song on the whimper from whence it came.

A special detail is that the melodies in all three choruses of the song are slightly different. The first is unmodified, while the second lingers on some quite dissonant notes. The third is a part of the loud segment of the song and the melody in that chorus goes much higher than in the other choruses.

#### 4.1.2 Come of Age

The first recording of "Come of Age" I could find in my archives was created on June 7, 2013, which means it was written while I was making "Sunshine and Someone to Hold". I remember, once again, trying to write a song with positive lyrics. I had come up with some lines I was singing over and over again that actually were light-hearted, but when I finally decided to sit down and finish the lyrics I could not help writing an extremely pessimistic song. I do like the end result, however; The grooving nature of the chorus with the rhythmic guitar hook and the lyrics exclaiming "nothing ever changes for the good" seemed to inflict a really interesting contrast.

The song also derives from the Lutheran notion that humans are very much sinners and unable to do much good on their own. The lines *"the best of us ain't here for long / and that's how I know we ain't a part of that group"* refer to the thought that if a person is given enough time on this planet, he or she will act selfishly and commit immoral acts. The best of us, therefore, are the ones who die young, as they have less time to sin.

This song is very active musically and there is little room to breathe. New elements are introduced constantly, the most prominent one being the overwhelmingly distorted guitars that surprise the listener after the second chorus. The song begins without any fanfare, as if it has always been playing in the background, and ends in a similar fashion.

#### 4.1.3 Acid

I wrote most of this song during my teenage years when my Smashing Pumpkins fandom was most prominent and those influences can definitely be heard. It was written long before I systematically archived my song ideas and therefore I have no idea of the exact date of its creation.

This song has stuck with me through the times because I felt it had a lot of potential. However, I was never able to come up with a melody for the part after the first chorus. One day, however, when I was thinking about which songs I would like to include on "Sterner Stuff" I started playing around with the aforementioned part and came up with idea of including a modulation. That inspired me to write a melody that did not concur with the modulation, but went in a completely new direction that is separate from the rest of the instruments. I thought these new ideas were so good that I could not

help but include the song on "Sterner Stuff". I asked my friend Johannes Tuovinen to play bass guitar on this song because I knew he excels at writing heavy metal influenced bass lines.

I wrote the lyrics for this song when everything other than the vocals was already recorded. I tried to write the same sort of lyrics that I would have written ten years ago when I first wrote the song. That is the main reason why the lyrics of "Acid" are much more abstract than on the other songs included on "Sterner Stuff". I was not as big a fan of honest and direct lyrics back then, as I am now. The lyrics mostly talk about a general sense of lack of purpose. The lines in the chorus "*you'll never get out of here alive and well / all's well that ends well but this won't*" conveys the thought that no matter what happens during one's life it will end in death, and hence in some way be in vain.

#### 4.1.4 Solitary

The first recording of "Solitary" I have was created on March 8, 2016. The song was written during the time I was already demoing the drums with Matti Muhos. I came up with the chords and melody of the verse and felt they fitted a love song. When I tried to write something endearing, however, everything I came up with sounded too corny, so in the end the song ended up being about when I was a young child and thought that all I would ever need in my life was to make music, and moreover, that I would require no social activities whatsoever.

The chorus is the heart of "Solitary" with its contemporary pop inspired melody. It reminded me of the band Mew and perhaps that is why I wanted to use an idea of theirs in the song. Their song "Witness" from their fourth album "+ -"<sup>15</sup> has a very high-adrenaline chorus, but the drummer does not use the snare drum at all during it. I loaned this idea and it is for this reason that "Solitary" has a chorus where the only drums used are the kick drum, the toms and the ride.

An effective moment in the song is when I sing the name of the song and the loud guitars enter for the first time. Their visit is not, however, a long one, and when they return later in the song making their re-emergence as powerful as their entrance was a real challenge. Luckily, Matti Muhos proposed the drum pattern one can hear in the last part of the song, and which gets stuck on the

<sup>&</sup>lt;sup>15</sup> Mew: "+ -" (Universal) April 21, 2015

toms for a long time. When the snare enters it is at least as effective as when the loud guitars are first introduced.

#### 4.1.5 The Measure of a Man

The creation date of this song in my archives is November 18, 2015. The first thing I wrote was the three chords that are repeated at the beginning of the song. I started singing on top of them, but I felt the melody needed some additional chords. The hook of the verse was created in this way, although the end result on "Sterner Stuff" is much more subtle than I originally had had in mind. The remaining chords, after the first three looping ones, introduced only when the melody moves onward, is still an effective detail.

The rhythmic qualities and the strumming nature of the guitar chords reminded me a lot of the song "Crumble" on Dinosaur Jr's album "Beyond"<sup>16</sup>. It inspired me to loan a couple of other qualities from that song on "The Measure of a Man", including the distorted bass guitar and the loose grooviness of the drum patterns of its verse. However, as a song "The Measure of a Man" is much more shoegaze<sup>17</sup> inspired than "Crumble", which can be heard in the effects applied to the guitars and the synthesizers, which "Crumble" has none of.

With regards to the lyrics, this song is the first one on the album to exhibit clearly some positive themes. While the first lines "*I'm forever in my place, but you are not in yours / I don't care of my place, but you're content with yours*" talk about bitterness towards those 'who have it better', the second verse takes another perspective: "*Yet I'm not forever hopeless like one might think / I put my faith in some other place, in some other King*"

The song's name "The Measure of a Man" is something I happened to sing over the chorus when I was writing its melody. However, there is a "Star Trek: The Next Generation"<sup>18</sup> episode of the same name, and I was very much aware of it while writing the song. I liked this connection, and decided to go with it. While the Star Trek episode explores the theme of humanity from the perspective of

<sup>&</sup>lt;sup>16</sup> Dinosaur Jr: "Beyond" (Fat Possum) May 1, 2007

<sup>&</sup>lt;sup>17</sup> "Shoegaze" is a sub-genre of indie rock in which effects are used to create a blurry, psychedelic atmosphere

<sup>&</sup>lt;sup>18</sup> "Star Trek: The Next Generation" is a science fiction TV series produced by Paramount, which originally ran from September 28, 1987 to May 23, 1994

the series' android crew member Lt. Commander Data and his human and non-human qualities, my song asks the questions: What defines the worth of a human being? In this world where we do not even decide where we are born, who our parents are or whether or not our essential needs are fulfilled, who are we to condemn or validate a person's life? Who are we to say that that someone is a good person or a bad person?

#### 4.1.6 Launching Down on Tracks

"Launching Down on Tracks" is a very old song, one which my old band Das Claudius used to play. Matti Muhos, the drummer on "Sterner Stuff", was also the drummer of that band, and because we both really liked this song we decided to record it during the "Sterner Stuff" recording sessions, as it had never been recorded before. Originally, I was not going to include it on "Sterner Stuff", but Riku Mattila suggested that the album might be better with it.

I do not recall much about composing this song. What I do remember is that the part with the 7/4 time signature was completely separate from the rest of the song at first. The guitar riff in that particular part is one of my best, so I wanted to include that in a proper song, and while composing the rest of "Launching Down on Tracks" I managed to include that riff quite naturally.

I had been singing this song with random lyrics live for many years, so when it was time to write the official lyrics - due to the song being included on "Sterner Stuff" - I cherry picked from the best lines I had come up with throughout the years. For example the line *"let me out / puny soulless doubt"* was something that had just stuck with me. I did write a lot of new lyrics too. The verses are completely new, except for the line *"bring yourself up / launching down on tracks"*. In the end, I would not say this song is about anything specific; rather it is simply a collection of lines that sounded cool to me.

#### 4.1.7 Sin

The first recording of "Sin" in my archives was created on November 13, 2013. This song is one that I remember writing the lyrics and the music to at the same time very naturally, without much effort. I had been jamming around with my guitar and came up with the riff of the verse. From there the structure of the song just started coming together. I started singing on top of the riff of the verse,

coming up with lyrics at the same time, and progressed through the song merely adding elements that seemed natural to me. I am quite proud of the bridge in this song with the atonal vocals. I think it is quite a unique musical hook.

Lyrically this song deals with subjects I wish Christian rock songs would deal with more often. Themes explored in this song include the fall, predestination, disbelief, the great commission and the origin of one's faith. To me "Sin" is honest in a way modern Finnish gospel music almost never is, and that does not mean it is vague or afraid to reveal what it is about. For example the line *"but your son is our savior / he is our savior"* is very clear. However, I tried not to make this song overly preachy and to avoid forcing it to be overly positive. After all, the Bible is very honest and includes all kinds of human emotions, and I think the art Christians create should reflect that.

#### 4.1.8 All this Suffering

My first recording of "All this Suffering" is from June 16, 2013. The whole song sprung from the first guitar riff of the song, which is repeated throughout it. That riff serves both as an intro and as a bridge in the song, and it is also used as an interlude after the first chorus. I really liked that particular riff when I first wrote it and had a strong urge to write the rest of the song around it. At the time I thought the song I ended up with was too simplistic rhythmically, so I aimed at correcting that on the version one can hear on "Sterner Stuff". The verse certainly has a lot of detail with the guitar and the drums clashing rhythmically, while in the chorus they unite by playing in a much more similar, waltz like rhythm.

I used to sing the line "love is suicide" on top of the bridge part, which is copied from The Smashing Pumpkins song "Bodies" from their album "Mellon Collie and the Infinite Sadness". A friend of mine heard me sing it and started poking fun at it singing "love is suicide / sue is lovecide". I thought that was a great idea and decided to use it in the song. However, I only wrote the lyrics to "All this Suffering" when I absolutely needed to - right at the end of the recording of "Sterner Stuff". I wanted the song to have a positive message inspired by the lines "there was a beginning, there will be an end / to all this suffering", which I had written for the chorus. That is why I decided to poke fun at The Smashing Pumpkins' negativity and changed the line from "love is suicide / sue is lovecide" to "love ain't suicide / sue is lovecide". Another interesting fact about

the lyrics is that the line *"the earth keeps spinning its every turn"* originated from me, when singing random lyrics on top of the song during a concert on November 11, 2013.

#### 4.1.9 The Loneliest Guys

The music and lyrics for "The Loneliest Guys" were written on May 6, 2015. At that time I played the guitar chords of the verse very rhythmically, but already had the notion of the studio version having a more effected and shoegaze-inspired version of the same chords. This song is one of the longer ones on "Sterner Stuff", and while some might find it repetitious, I decided that it is a good thing. It allows the listener to dwell on the feelings it conveys, and renders the short-but-sweet song "Outta Dis World" that comes after it on the album, a breath of fresh air after a long and tiring journey.

The lyrics for this song are very personal and while they might seem depressive, they are actually very reassuring. The verse consists of me stating my dissatisfaction on several matters in life, while the part after the chorus, which is drowned in effects on the final version on "Sterner Stuff", is meant to be something akin to the voice of God saying the lines "how many times will you cry seemingly in vain / is how many times I will soothe your pain / how many times will you shout through the dark of night / is how many times I will show you light". At the end of the song the narrator considers himself or herself convinced and the line "I hope that I get to know why all good things had to die".

#### 4.1.10 Outta Dis World

I wrote the music for "Outta Dis World" on July 2, 2014 before a social gathering for which I arrived much too early. There was a guitar there, so I grabbed it and wrote a song in which one can definitely hear my better-than-average mood. The chorus of this song repeats the same simple melody over and over, while the chords are changing. That is an idea I enjoyed already as a child while listening to 90's video game soundtracks made with tracker programs. I had not written a melody for the part after the second chorus, so when starting to think about recording "Sterner Stuff" I decided to include a string quartet on that part, thinking it would be a grand ending for the album. I wrote the score, seen in *figure 01*, using Renoise and exporting the midi files to MuseScore

2.

I waited until the last possible moment to write the lyrics. They are somewhat more abstract when compared to all other songs on the album, perhaps with the exceptions of "Acid" and "Launching Down on Tracks". The lyrics can be interpreted in two ways, either as them being about me being a religious person, or about me being a video game enthusiast. However, there are lines that make no sense in either of those contexts. The closing lines of the song and the album "*now that you know where I've gone / will you listen to my songs?*" are asking the listener whether or not he or she is interested in listening to my music, knowing that I am a Christian or knowing that I am a gamer, both of which can be naively considered traits that lack street credibility.

figure 01 - the score for the strings on "Outta Dis World"



#### 4.2 Recording

There were two kinds of recording scenarios during the making of "Sterner Stuff". The first type of a scenario was when I was recording at the studios of Sibelius-Academy using the academy's equipment. The second scenario type includes all the times I recorded in spaces that were not necessarily designed for it and using my own equipment. A list of the hardware and software I used when recording with my own equipment, follows:

Apple MacBook Pro (Retina, 15-inch, Mid 2015)
2,8 GHz Intel Core i7 Processor
16 GB 1600 MHz DDR3 Memory
AMD Radeon R9 m370X 2048 MB Graphics
OS X El Capitan version 10.11.6 Operating System

Focusrite Saffire PRO 24 Firewire Audio Interface Focusrite Scarlett 2i4 USB Audio Interface, used for recording the guitars and demoing the drums

Pro Tools 12 (used for recording, editing and mixing)Renoise 3.1 (used for creating and sequencing synthesizers)MuseScore 2 (used for notating the string quartet parts for "Outta Dis World")Plugins: Several Soundtoys, Fabfilter and Waves plugins

#### 4.2.1 Pre-production

We started the pre-production phase of the project together with drummer Matti Muhos in February 2016. It consisted of me demoing the album's songs with Matti Muhos and then us recording rough demo takes of both the drums and the guitars in order to come up with suitable drum parts. The recording location was our old band's practice space.

#### 4.2.2 Drums

I booked Sibelius-Academy's studios for a week, from the 4th to the 10th of July, 2016, to record the drums for the 16 songs we had planned to include on the album at that time. We recorded two to

four songs a day. Matti Muhos played a drum set with two toms, three crash cymbals and a ride. For some songs he also included a tambourine ("Outta Dis World") and a trash cymbal ("All this Suffering") on the drum set. The different microphones and preamplifiers used in the drum recordings can be seen in *table 01*.

Instrument / Microphone placement	Preamplifier	Microphone	Placement details	Other details
01 Kick	Seventh Circle, Neve style preamp	Sennheiser MD421	Placed inside the kick drum, aimed towards the hammer	*A modular kit with different styles of preamps
02 Snare top microphone	Seventh Circle, Neve style preamp	Electro Voice RE20		*
03 Snare bottom microphone	Seventh Circle, J99 style preamp	AKG C451B		*
04 Hi-hat	Seventh Circle, J99 style preamp	AKG C460	Placed above the hi-hat, facing directly towards the outer rim	*
05 Rack tom	Seventh Circle, C84 style preamp	Electro Voice RE20		*
06 Floor tom	Seventh Circle, C84 style preamp	Sennheiser MD421		*
07 Left overhead microphone	Seventh Circle, Api style preamp	Neumann U87 Ai mt	AB Spaced pair about 1,5 m over the drum set	*, This microphone was placed a little higher than the right one
08 Right overhead microphone	Seventh Circle, Api style preamp	Neumann U87 Ai mt	AB Spaced pair about 1,5 m over the drum set	*
09 Left ambience microphone	Rantanen MA-20 / MX-20 / GA-20	AKG C414B	XY pair low in front of the drum set about 2 m away	
10 Right ambience microphone	Rantanen MA-20 / MX-20 / GA-20	AKG C414B	XY pair low in front of the drum set about 2 m away	
11 Left drummer's perspective microphone	Amek System 9098	Audio-Technica AT4081	A stereo pair placed over the drummers head	**This was an experimental idea to capture the sound audible to the drummer
12 Right drummer's perspective microphone	Amek System 9098	Audio-Technica AT4081	A stereo pair placed over the drummers head	**
13 Ride	Grace Design M802	Shure SM-57	Placed over the outer rim of the ride, aimed directly downwards	

The details on the drums used are as follows:

Gretsch USA round badge drum set (12", 16" toms and a 22" kick drum)

14" Mapex Black Panther snare drum

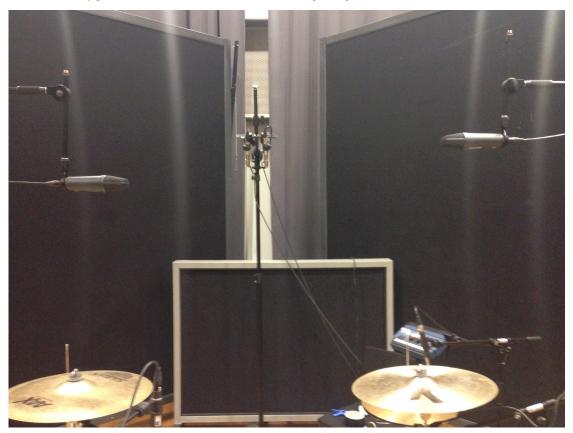
- 14" Paiste 2002 black label medium hi-hat
- 20" Avedis Zildjian antique ride
- 18" Sabian AAX stage crash
- 17" Zildjian dark thin crash
- 16" Sabian AAX studio crash

Custom 'trash cymbal' made out of old and broken cymbals

figure 02 - the drum recording setup



figure 03 - the Audio-Technica AT4081 ribbon microphones placed over the drummer's head



*Figure 02* shows the placement of the microphones. I decided to place the left overhead microphone slightly higher than the right one because when placed at the same level the snare seemed a bit too loud on the left signal and some phase problems could be observed. Another interesting detail is the usage of the Audio-Technica AT4081 ribbon microphones over the drummer's head. They can be seen more clearly in *figure 03*. I placed the microphones there in order to capture the sound audible to the musician when he or she is playing a drum set. I had a vision of mixing this sound together with the other more traditionally placed microphones and while I did use it on the album, the sound was too wild to be audible at all times.

I wanted the stereo image of the overheads to be wide, so I placed them quite far apart. I was careful not to place them too high up, to ensure that the sonic qualities of the overhead signals were not too similar to the ambience microphone signals. This is also why I placed acoustic panels around the drum set: i.e. to keep some of the excess ambient reverberation away. The ambience microphones were placed quite close to the drum set and relatively low. I wanted them to record a 'ballsy' sound, one which a person can hear when kneeling in front of a drum set being played, characterized by an emphasis on the kick and snare drum. Since the stereo image of the overheads was wide I decided to use the XY stereo technique<sup>19</sup> on the ambience microphones. That way their stereo image was not quite as wide. This also fit well with the fact that I was aiming for a darker sound with the ambience microphones, since I like to keep the bass heavy sounds in the middle of the stereo image of a song.

#### 4.2.3 Guitars

After the drums I moved to recording the guitars. This happened during July and August 2016. I recorded the guitars in Turku, in the bunker of a church that I attend. There was no one else there during the summer, so I had as much time as I needed to play at high volumes. Being allowed to record with such freedom was one of the high points of the recording sessions for me, since I got all the time that I needed to focus on the guitars.

I recorded all of the electric guitar tracks using two instruments: A Fender Highway One series Telecaster and a modern reissue Fender Starcaster. My amplifier was a Vox AC4TVH. I also used a variety of guitar stompboxes, of which some of the notable ones were: Boss OD-3 overdrive pedal,

<sup>&</sup>lt;sup>19</sup> Read more about stereo recording techniques: Laaksonen, Jukka: Äänityön kivijalka (Idemco Oy, Riffijulkaisut), 2006. Pages 272-287 (in Finnish).

MXR '78 custom Badass distortion, Electro-Harmonix Big Muff fuzz pedal and Danelectro Wasabi Distortion pedal. I had the OD-3 turned on at all times but with only a slight hint of drive, for what I describe as my clean sound, and used the Badass distortion for the heavier parts. The Big Muff was used for some specific noise effects and the Wasabi distortion was used mostly for solos.

I recorded the electric guitars using two microphones, a Shure SM-57 placed off-axis and an Audio-Technica AT4081 ribbon microphone placed on-axis, as one can see in *figure 04*. I decided to keep this recording setup simple, because from earlier experience I have learned that the most important factor when recording guitars is the sound coming from the amplifier, and not how many microphones are placed in front of the speaker. I used these two microphones to get a more neutral sound with the SM-57 and a more colored one with the AT4081. I used the two preamps on my Focusrite 2i4 audio interface.



figure 04 - the electric guitar recording setup

The electric guitar recording process on my albums is interesting in the sense that I usually compose a lot of the secondary guitar parts during it. This time I was really able to focus due to having no time constraints and a solitary working environment. I usually put in an eight to ten hour work day on each song, but there were also songs I invested even more time into. I was able to create as many of guitar tracks and overdubs as I wanted, and due to this free form working style I was able to reach an end result I was very content with.

There is not very much of acoustic guitar on "Sterner Stuff". Recording this was a tattered process. I recorded in several locations: My home, my old band's training space and the studios at Sibelius-Academy. The acoustic guitar parts that are buried under other instruments, like the ones in the choruses of "The Measure of a Man" and "The Loneliest Guys", were recorded at the training space or at home. I knew that for those kinds of tracks the most important aspect of the acoustic guitar was the high frequency strumming sound, so I used a simple setup: Just a single Oktava Mk 012 microphone pointing off-axis to the guitar's sound hole from about an arm's length.



figure 05 - the acoustic guitar recording setup for "My Fellow Men"

The song "My Fellow Men" focuses heavily on the acoustic guitar and I wanted to record myself singing and playing at the same time, to capture a more intimate performance. Therefore, I decided to record the acoustic guitar for that song at Sibelius-Academy's studios with a more complicated setup, which can be seen in *figure 05*. All in all, I used five microphones: A Shure SM-57 was

placed quite near the guitar facing the sound hole, while an AKG 460 was a bit further facing the bridge from an angle. I recorded my vocals using an Electro-Voice RE20, for the sake of variety, since I recorded all other songs' vocals with a Shure SM-7. I also placed a Neumann U87 XY stereo pair, approximately two meters away from the guitar as ambience microphones. For all these microphones I used Grace Design M802 preamps.

#### 4.2.4 Bass Guitar

My bass guitar recording setup was very simple. I recorded using a Fender Precision Bass at my home after the guitar recordings were done without an amplifier, and only recording the direct injection signal through the preamps of my Focusrite Saffire Pro interface. As with the secondary guitar parts, I composed the bass lines whilst recording them. The bass on the song "Acid" was played by a featuring musician, Johannes Tuovinen. He used a similar setup at his home and sent me the audio tracks via the internet.

#### 4.2.5 Synthesizers and Keys

After recording the bass guitars I moved to recording the synthesizers. I used software synthesizers and a digital audio workstation called Renoise to create most of the sounds. I used a midi keyboard to play the synthesizer parts, but recorded them as audio into Pro Tools through rewiring<sup>20</sup> Renoise to Pro Tools. Occasionally, I did not play the synthesizers in real time, but sequenced them using Renoise's tracker interface.

On the song "Come of Age" I used a plugin called "DaHornet" by NUSofting. It copies the characteristics of a 1978 analog synthesizer by Electronic Dream Plant called the "Wasp". The plugin has, among other features, two oscillators (saw wave and pulse wave), a modulatable filter and an LFO. The sound heard in the verse of "Come of Age" was created by modifying a preset called "industrial bass" to my liking, writing the notes using Renoise's tracker interface, duplicating the instrument, and then creating low-pass filter frequency automation curves individual to each duplicate. I wrote the automation in such a way that the cutoff frequencies of the filters slowly moved from higher values to lower values and back again. The fact that the automation curves are

<sup>&</sup>lt;sup>20</sup> "ReWire" is a software protocol that allows audio signals to be routed from a piece of software to another

not identical creates an interesting ever-changing sound. The sound on the chorus of that song is the same modified preset, but with no LFO modulating the filter and no filter frequency automation, creating a softer and more subtle sound.

On "Solitary" the lead synthesizer sound heard in the verse and final chorus was created with Plogue's "Chipsounds" plugin that emulates game console soundchips. Within that plugin, I selected a chip called "D1867G multipulse sound generator", which is not a chip from a game console actually, but from a Casio toy synthesizer called VL-Tone VL-1. I used a waveform on that chip called "English Horn", added an overdriven filter plugin that was modulated by the volume of the synthesizer signal, and some reverb to come up with the sound audible on "Solitary". The soft chords that can barely be heard during the bridge of that song were created with a plugin synthesizer by Martinic under the name of "Combo Model F", which emulates the Italian Farfisa Mini Deluxe Compact organ from the 1960s.

The "Combo Model F" plugin was also used in the synthesizer parts of "Launching Down on Tracks". In that song I used Renoise's native LFO plugin to modulate the speed of the Combo Model F's vibrato parameter to achieve the jumpy sound on the song. I also applied Renoise's cabin simulator plugin to add some distortion to the sound. This was the hardest keyboard part to play on the album and getting the perfect take required several attempts.

I created the synthesizer that can be heard on the verse of the song "Sin" by sampling a plugin called "Cyclone" by Sonic Charge. It is a piece of software that emulates the Yamaha TX16W sampler from 1987. The plugin included an excellent preset, but I found the plugin quite hard to use, so I decided to create a sampled instrument out of it using Renoise's plugin grabber tool. Since the Cyclone plugin itself was a sampler (albeit with the quirks of the Yamaha TX16W), the difference in the sound of my sampled instrument and the original sound was not significant, at least to my ears. After sampling the preset, I duplicated the signal two times, panned the duplicates hard left and hard right, and added a pitch shifter that shifted both of the duplicated signals five semitones upwards, but with a slight variation in fine tune. These effects with Renoise's native pitch gliding feature found in its sampler results in the sound heard on the final version of "Sin".

The song "The Loneliest Guys" features the most prominent use of synthesizers on the album. The string-type sound that can be heard throughout the song was created with a plugin called "Strings

Dream Synthesizer" by NUSofting, which aims to sound like the classic Eminent Solina synthesizer from 1974. I used my Akai MPK mini mkII midi keyboard's joystick style controller to modulate a low-pass filter with the x-axis and the pitch of the plugin with the y-axis. Playing with the keyboard whilst modulating the pitch and the cutoff frequency of the filter, I recorded two tracks of the same synthesizer sequences and panned them left and right to create the slightly dissonant sound on the song.

IK Multimedia's mellotron sampling plugin "SampleTron" was used in the songs "My Fellow Men", "The Measure of a Man" and "Outta Dis World". On the songs "Sin" and "All this Suffering" I also played a Kurzweil K1000 hardware synthesizer. The synthesizer belonged to my father in the late 80's, and I used some presets created either by him or the manufacturer to play some synthesizer parts on "Sin" and "All this Suffering". On "Sin" the Kurzweil K1000 is the rising pad sound in the chorus, while on "All this Suffering" it is the very first synthesizer heard at the beginning of the song.

The song "Solitary" features a grand piano played by my father Tom Holmén. The recording was done in Sibelius-Academy's studios using the Grace Design M802 preamps, an AKG 460 AB stereo pair and one Audio-Technica AT4081 ribbon microphone. These microphones were placed inside the piano, but not too close, pointing towards the strings.

#### 4.2.6 Vocals

I recorded the vocals when all of the drums, guitars, bass guitars and keyboards were completed, using a Shure SM-7 microphone and the preamps on my Focusrite Saffire Pro 24 audio interface. I was able to record in a very relaxed scenario; at home with no rigid schedules. For this reason, I was able to work only when I had a good feeling about my singing voice, and I could do as many takes as I wanted. The vocals were recorded in about two weeks, but later on I returned to realize extra ideas and correct some mistakes.

#### 4.2.7 Percussion and Strings

The percussion instruments were played by Oiva Ristimäki during his erratic visits to my home using the preamps of my Focusrite Saffire Pro 24 audio interface, a Shure SM-57 microphone and an Oktava Mk 012 microphone.

The recording session for the strings at Sibelius-Academy's studios was the last session of this project. I had written the sheet notes for "Outta Dis World" and given them to the musicians Elsi Goesch, Josefiina Paasonen, Emmi Hakala and Aino Hannonen, and on April 20, 2017, we recorded the string parts they had practiced beforehand. I used the Grace Design M802 preamps of Sibelius-Academy's studios. I had a Shure SM-57 as a closeup microphone for all the instruments, other than for the cello where I used an Electro-Voice RE20. For ambience microphones I had two Neumann U87 microphones set up as a blumlein stereo pair. The whole string recording scenario can be seen in *Figure 06*.



figure 06 - the string quartet recording session

#### 4.3 Editing

In the case of "Sterner Stuff" the editing phase was a fairly simple one. I usually stopped recording when I got the perfect take, and therefore I did not spend much time searching for the right ones during the editing, since they were most often the ones I had recorded last. I had taken the time to ensure good performances, so hiding mistakes through editing took little time. I did have a plethora of overdubs, and trying different ideas out to find the most interesting solution took some time.

I edited the drums right after finishing recording them, because I wanted to apply some time correction and recording the rest of the instruments on top of the non-final drum edits is not a good idea. That usually leads to having to edit the other instruments much more drastically afterwards. I had recorded Matti Muhos' drum performances in two to four takes per song. I edited them together, consolidated the audio clips and used Pro Tools' beat detective feature to iron out the worst timing problems and to introduce a general sense of steadiness to the drumbeats.

Editing the bass and guitar parts was mostly a matter of choosing the right takes and making overdubbing decisions. There was little need to correct any mistakes, since I had taken all the time I needed in the recording phase. I was not completely content with some of the guitar parts on "All this Suffering" and after Riku Mattila urged me to do so, I re-recorded them instead of trying to parse them together through editing.

There is not much to note on the editing of the keyed instruments, percussion instruments and the strings. In the case of the keys, this album did not call for much editing at all. For the percussion instruments, I usually took a well played snippet and looped it as much as needed. The final string edit on "Outta Dis World" consists of a single take, with a short snippet from another one to correct a chord that was quite out of tune.

The editing of the vocals consisted of me choosing the right takes, editing away unwanted overly prominent transients by the means of cutting and adding fades to the audio, making the creative decisions considering the overdubs, and correcting some timing issues. I also applied some pitch correction when I felt I had recorded an emotionally excellent take, but there were some problems with the pitch of my singing.

#### 4.4 Mixing

I mixed all of the album's 10 tracks at home. I used Genelec 8020A speakers and Sennheiser HD-600 headphones. Due to my room being far from perfect acoustically, I mixed the album mostly using my headphones and used the speakers only occasionally to ensure a good sounding mix. I listened to the rough mixes in as many scenarios as I could: While walking to eat lunch with my earphones, while in my car driving, on my living room speakers, and so on. I did this to understand what the songs sounded like through various setups. I started mixing most of the tracks before all of the instruments were recorded, because I was eager to hear what the songs would sound like with a bit of polish, and also because mixing is the most enjoyable part of making a recording to me. However, this resulted in a lot of unnecessary hours spent on tweaking sounds that - in the end - I had to mix all over again, because something I had not yet recorded changed the overall soundscape. All in all I experimented a lot, which took its time. Sometimes I scrapped a version of a mix completely and started from scratch all over again.

#### 4.4.1 Equalization

Most of the equalization I applied while mixing "Sterner Stuff" was to ensure a quality sound. I toned down unwanted amplifier noise from the guitars and cut out some annoying resonant frequencies from the drums, guitars and vocals. I also cut out frequencies from some instruments to prohibit them from clashing with other instruments in the mix. I used high-pass filtering on the guitars to make room for the bass, and lowered the volume of their high frequencies to allow the drums' cymbals to sparkle. I also used equalization to affect the tones of the instruments. If I wanted the vocals to sound more aggressive I boosted the high frequencies. To achieve a boomier bass, I boosted the low frequencies of the electric guitars by boosting and cutting frequencies, to achieve the sound I heard in my mind. To ensure the reverbs I used sound less messy, I cut a lot of the low frequencies out of the reverb signals. I also used automation while applying equalization. If the guitar was being played with no other instruments being heard, there was no reason to cut the frequencies that I had cut when the guitar was played with other instruments audible. In fact allowing those frequencies to be heard resulted in a much fuller sound.

An example of automation used to battle annoying frequencies can be heard in "My Fellow Men". While listening to the acoustic guitar tracks I noticed a lot of distracting resonant frequencies. However, they changed rapidly depending on the guitar chords. This is a part of an acoustic guitar's natural sound, but nevertheless I decided to automate an EQ plugin to cut out the most prominent annoyances. This took an unreasonably long amount of time and resulted in a marginally better acoustic guitar track and a visually interesting row of automation lines, as can be seen in *figure 07*. Each of the lines going up or down represents narrow EQ cuts triggering on and off over time. I later reworked this automation to be much simpler and more natural sounding.

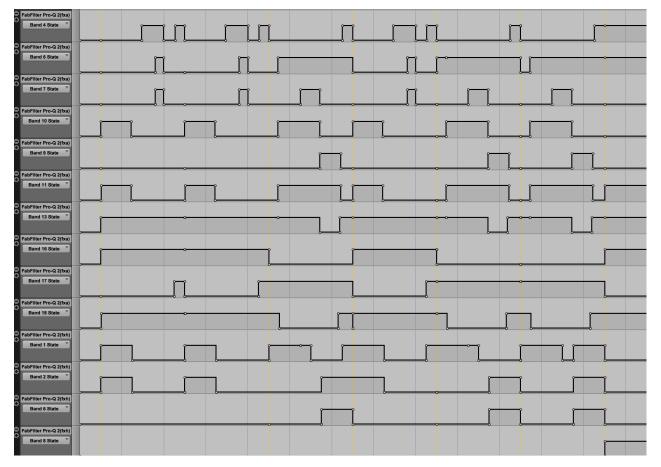


figure 07 - the acoustic guitar equalization automation of "My Fellow Men"

On "Come of Age" an interesting application of equalization can be heard on the two concurrent guitar overdubs of the verse. The much less audible leftmost guitar overdub is affected by a low-pass filter. I wanted to have the guitar doubled, but I also wanted the listener to localize the guitar to the right side of the stereo image, and this was my solution. Another interesting equalization method is used on the song "Sin", where there is a synthesizer part in the chorus that plays an ever expanding chord towards the end of the chorus. With higher and higher notes being played, the synthesizer track began to sound painful, so I automated a gradual change in the amount of how

much the high frequencies were cut. The higher the synthesizer was playing, the more the high frequencies were diminished.

### 4.4.2 Dynamics

I use dynamics processing not only to make an instrument sound more pronounced, but to create over the top effect-like results. On "Sterner Stuff" I used a compressor on the mix bus and also on singular tracks and auxiliary tracks that I had created for instrument groups. On every song I had a group auxiliary track for the drums, guitars, synthesizers and vocals. I used one for the bass tracks, for example when there was an overdriven bass track present together with the original direct injection track. To get the drums and the bass sound coherently together, I usually sent the drum and bass signals to an auxiliary track and compressed them with different plugins. A method which I often used on the drums of "Sterner Stuff" was to have a few compressor plugins in series, to achieve a very compressed dynamic range that still sounded punchy and lively enough. I also used multiband compression<sup>21</sup> on the drum overheads to achieve control over their highest frequencies, because while I wanted the drums to sound bright, the cymbals sometimes were too much so.

Sometimes I sent individual drum tracks not only to the drum auxiliary track, but also straight to the master bus, to achieve a kind of parallel compression<sup>22</sup> effect. For example, I sometimes used a bus to send the ambience microphone signals of the drums to the master track, while also having them routed to the drum group auxiliary track where quite a bit of compression was applied. I did this to allow the more natural dynamic range of the original ambience microphone signals to be heard and to introduce a certain natural quality to the otherwise quite processed sounding drums.

I used an audio gate on the kick and snare drum tracks, and also the vocal tracks by default, to cut out unwanted audio spill. I used an expander to reduce the decay of the snare and toms on the overhead and ambience tracks of the drums. I very often applied a compression technique, that Riku Mattila taught me, on the vocals. He showed me how a compressor with a very slow attack and a very fast release can bring out the consonants of the vocalist's words, allowing the overall volume

<sup>&</sup>lt;sup>21</sup> "Multiband compression" means applying compression to specific frequency bands of a signal

<sup>&</sup>lt;sup>22</sup> "Parallel compression" is a technique in which a dry, or slightly compressed signal is mixed with a heavily compressed one

of the vocal track to be low without risking the words being incomprehensible.

An example of usage of dynamics processing more akin to an effect than mere subtle attempts to control a sound can be heard on "Come of Age", right after the first chorus is over. The drums, guitars and synthesizers are playing alone, awaiting the return of the bass guitar. In that moment the drum signal is extremely compressed and thus sounds distorted and boomy. Due to the lack of bass guitar, this part called for such an effect. The same effect is used for a longer period of time on that same song after the second chorus, when the very distorted guitars surprise the listener.

The gating of the guitars in the verse of "Solitary" was a notable use of an audio gate on "Sterner Stuff". I wanted those guitars to be very angular and striking. That is why I used a gate to reduce the release of the guitar chords to a very short amount of time. On the track "The Measure of a Man" I side-chained<sup>23</sup> a gate on the ambience tracks of the drums with the kick drum and snare signals, to bring out the extremely compressed ambience microphone sound significantly more when the snare or kick drum was hit, making them sound big and 'beefy'. On "All this Suffering" I used volume automation in the chorus of the song, on the master channel, to 'push' the audio harder towards the threshold of the master channel's compressor plugin. With Pro Tools' gain plugin, I added from 2 to 3 dB of volume to the signal before it entered the compressor. Owing to the signal being louder, the compressors threshold volume level was reached much more frequently, creating a much more dynamically restrained sound for the chorus, which was the effect I was looking for, since I wanted the chorus to sound almost unbearably loud and heavy at all times.

### 4.4.3 Reverbs and Delays

Overall on "Sterner Stuff", I aimed for a quite dry sound when it comes to reverbs. I like all the elements of a song to sound relatively clear, and to use long reverbs mostly only as brief effects. I used Waves' IR-L convolution reverb plugin with an impulse sample of a nice sounding studio room on all of the tracks on this album. I controlled the release of the reverb and applied equalization varying with the needs of the song. I usually cut a great deal of the low frequencies away from the reverb signal. I also often created an auxiliary track where I sent the bass guitar to be equalized, which I then sent straight to the reverb. This allowed me to apply aggressive cuts to the high and

<sup>&</sup>lt;sup>23</sup> "Side-chaining" is the act of controlling an audio processor with a signal other than the one being processed

low frequencies of the bass guitar before sending it to the reverb bus, which resulted in some added depth for the bass sound, but a sound that was not too boomy and without any audible high frequency reverberation.

I used an algorithmic ambience reverb on individual drum tracks, mostly the snare, kick, toms and overheads. I routed this reverb track to the drum group auxiliary track, where it was compressed and equalized along with the other drum signals. I also used a separate reverb for the snare, usually a plate reverb or a small hall reverb. I set the volume on these reverbs relatively low, but while they are hard to hear, their exclusion from the final mix removes quite a bit of prominence from the snare. The plugin I used for these reverbs was Valhalla's VintageVerb. The snare reverbs were also routed to the drum group. Stereo widening was also something I used on many of the reverb tracks. For example, the aforementioned convolution reverb track I usually widened artificially. This allowed me to lower its volume, which resulted in a more quiet sound which still could be 'felt' in how it added to the overall sound.

There are quite a few of notable examples of the usage of reverbs and delays on "Sterner Stuff". I used some sort of short delay on the vocals on almost all of the songs. Along with this short and subtle delay, I used delays for effect purposes. In "Come of Age" one can hear a long delay with a lot of feedback on the vocals after the loud section with the very distorted guitars. On "Sin" there is a similar vocal delay during the second verse of the song, but this time I automated the speed of the delay to create a rising sound to foreshadow the overdriven guitars that hit after the second verse. On the chorus of the same song certain hi-hat hits have delay applied to them to create a short but sweet echo effect.

On "The Measure of a Man", after the second verse, a reversed reverb can be heard on the vocals. I created this by rendering the audio of the wet reverb signal, reversing it and placing it to collide neatly with the original vocal sound. In the chorus of "Outta Dis World" a lot of long vocal reverberation can be heard compared to the verse of that particular song. This was suggested to me by Riku Mattila, to create some variation between the verse and the chorus, and I thought the idea fit the song perfectly.

### 4.4.4 Other Effects

While mixing "Sterner Stuff" I applied subtle distortion when I felt the need to. In addition to applying stereo widening to the reverbs, I also used some on the group auxiliary tracks, for example on the guitar group, just to make the guitars' stereo image a bit more impressive.

On "Acid" the listener can hear a lot of distortion in almost every single one of the instruments. During the instrumental bridge section of the song, on the guitar playing on the right side of the stereo image, one can hear a distorted resonant filter that reacts to the guitar signal. I applied this filter to the originally quite dark and neutral guitar sound to achieve a new level of psychedelic guitar rock aesthetic influence. On "Launching Down on Tracks" one can hear a filter in the same vein applied to the bass guitar in the parts of the song with the 7/4 time signature. In the song "Solitary", during the chorus, one can hear a filter reacting with the piano signal, but this time it is not distorted at all. I applied this effect to create some softness to the quite rough piano sound in the original.

A tremolo effect can be heard on both "The Measure of a Man" and on "All this Suffering". In "The Measure of a Man" there is a slow tremolo effect on the guitar playing on the right side in the second verse of the song. In "All this Suffering", the heavily distorted guitar lead in the chorus has a very fast and artificial sounding tremolo. During that song's final chord's slow decay, a bit crusher<sup>24</sup> can be heard. I automated this on the master channel of the song, in order to create a slowly deteriorating effect for the ending that leads to the shoegaze style first chord of "The Loneliest Guys". I used a bit crusher in "The Loneliest Guys" too. It can be heard in the almost slap bass style bass guitar in the section after the second chorus of the song.

I applied a filter to the master channel twice during the whole of "Sterner Stuff". The most notable one is on "The Loneliest Guys", where the whole chorus is affected by a distorted low-pass filter. This, with a lot of other weird effects, especially on the vocals, creates a very surreal mood which I wanted to achieve with the chorus. The other time a filter is applied on the master channel, albeit only for a few seconds, is after the second chorus of "The Measure of a Man". During the first four chords of that section, the whole song has its high frequencies cut, except for the acoustic guitar

<sup>&</sup>lt;sup>24</sup> A "bit crusher" is a digital audio effect which reduces the quality of the audio signal by lowering its bit depth and/or sample rate

which I routed past the filter I had applied. This creates a reserved feeling for those four chords, which allows those same chords to have more power once they are repeated three times after the reserved ones.

### 4.5 Mastering

I wanted someone other than me to master "Sterner Stuff". There were two reasons for this. Firstly, I do not consider myself nearly as adept in mastering as required to be able to do it with the quality that I wanted. I have only mastered some individual tracks I have mixed, and that has been out of necessity, not because I thought I was good at it. Secondly, I had listened to the tracks on this album time and time again while recording, editing and mixing them. I wanted someone with fresh ears to tackle them. He or she would be much more capable at spotting issues I had omitted to correct.

The first person I approached for mastering, advised by my teacher Miikka Huttunen, was Minerva Pappi. We exchanged a couple of e-mails, but came to the conclusion that she was currently too busy mastering other albums. She recommended Jaakko Viitalähde of Virtalähde Mastering, and after reading about his mastering philosophy and references from his website, I concurred that he would do a fine job mastering my album.

I sent the unmastered tracks to Jaakko Viitalähde, and within a week I got the first versions of the mastered tracks. I liked the overall vibe; the tracks were significantly louder, but still retained much of the finer dynamics. However, I thought he had emphasized the low frequencies a bit too much, changing the soundscape too much for my taste. I commented on this and in the second versions Jaakko Viitalähde sent me the problem was gone. However I did ask for a third version, because of a couple of small issues, including the ending of "All this Suffering" fading out faster than it should have done, and some excessively loud transients in the vocals of "The Loneliest Guys" I had failed to hear while mixing the tracks. Jaakko Viitalähde corrected the problems, sent me the third versions, which I accepted. I was content.

In the end I am very pleased with how the mastering turned out. As previously mentioned, the songs sound louder, but I do not feel the dynamics I so carefully crafted are gone. In fact compared to

some albums produced during the worst times of the loudness wars<sup>25</sup>, this album is very detailed in its dynamics. The songs are much more uniform in their frequency spectrum after Jaakko Viitalähde's mastering, which makes the album sound like a one whole piece of art, rather than mere individual songs. The crisp high frequencies I wanted are still there, but some of the more earache inducing parts have been gracefully toned down. I also asked for vinyl versions of the masters, and they too are of excellent quality, while having an even wider dynamic range, as vinyl masters usually do.

<sup>&</sup>lt;sup>25</sup> "Loudness wars" refers to a trend of increasing audio levels in recordings which started in the 2000s

# 5. Results

### 5.1 Differences from my Original Vision

"Sterner Stuff" ended up being a fairly close representation of my original vision. While there are fewer songs on the album than I originally considered when I started the project, the length of the album is all but sufficient. Listening to Mew's "Frengers" and Interpol's "Our Love to Admire", one can note that my vision of taking sonic influences from those albums was fulfilled. While "Sterner Stuff" does not sound exactly like those albums, which I think is a good thing, the similarities are clear, especially with "Our Love to Admire".

Broadly speaking, I think the fact that I was able to work without making many compromises resulted in an album that corresponds very closely to my original vision. For example, if I had not been able to record the string quartet, which probably would have most been the case had I not been a student at Sibelius-Academy, I would have had to go with a sampled string mellotron. The fact that I had all the time I needed to record the electric guitars in the basement of the church in Turku allowed me to go all the way with my ideas and spend all the time I needed to reach the sounds I could hear in my mind.

## **5.2 Successes and Failures**

Overall, I am very pleased with how the album turned out. It definitely has character, yet I think the more thought out manner of approaching the production compared to my first album shines through. The focus of the album is where I wanted it to be; in the guitars and vocals. The guitars sound excellent and the personality of my playing style also comes through clearly. I was able to do as many vocal takes as I wanted and that can be heard in the end result. I am content with every vocal take on the album. The drums are punchy and detailed. They sound crisp and of high quality, and Matti Muhos' playing style shines as one of the high points of the album. Considering the bass guitar, I achieved my main goal, which was to mix it so that one can very clearly hear the melody progressions it is playing. The synthesizers sound well designed and add an interesting atmosphere to the songs.

The ten songs on the album are some of the strongest pieces of music I have ever written. The lyrics are touching and evocative. The melodies are full of hooks. This is of course a very subjective matter, so suffice to say they still sound very good to me, even after spending hours upon hours working on them. Together with Riku Mattila, I chose the right ten songs for the album out of the sixteen I originally had. The flow of the songs seems to be very natural, yet never uneventful or boring. Various moods are displayed during the albums 38 minutes, from "Acid's" aggressive angst to "Outta Dis World's" carefree floatiness. This means I achieved a quality I have always admired in the music of The Smashing Pumpkins: i.e. variety.

There are several highlights for me on the album. I am very proud of the clarity of sound on "Come of Age". The way the individual cymbals in the chorus can be heard, while the guitar riff is still the main focus, is a proof of that to me. The melody following the first chorus of "Acid", emphasized by the falsetto vocal stems, is really effective and having the vocal melody completely change while the other instruments modulate is an idea I still find to be excellent. The drumming on "Launching Down on Tracks" is sublime. It really displays Matti Muhos' skills and to put it frankly 'rocks your socks off'. The atonal vocal whines in the bridge of "Sin" and how the guitar solo leads to the second bridge was something I was able to pull off wonderfully, and while some might find the lyrics to "The Loneliest Guys" banal, I find them moving in their earnestness.

Like with any piece of art whose creation process is finite, "Sterner Stuff" is not perfect and has some things I was not able to do as well as I would have hoped. Overall, I might have been a bit too careful with keeping the usage of the stereo field restrained. I could have made some more aggressive decisions, such as panning an instrument much more daringly to either side. Sonically, while I do think the album sounds excellent, I remain a little worried that the high frequencies might have too much prominence. On some cheaper speakers the cymbals might even sound a bit painful to ones ears. Sometimes I also left an element or a small detail in a song too quiet in the mix. For example, after the album was mastered it became clear to me, that the string mellotron sounds on "The Measure of a Man" should have been mixed much louder.

I cannot come up with too many bad things to say about the songs themselves. In fact I am very proud of them. However, if one were to look for faults, one could note that the way I decided to make "All this Suffering" very edgy and heavy hides quite a bit of the almost waltz like qualities of my original acoustic rendition. That being said, this is completely subjective since some might

prefer the version on the album, and although I do miss some of the beauty of the original version, I still see it as a worthy inclusion to the album.

There are some singular things on "Sterner Stuff" I wish I had been able to correct. While I did spend a lot of time mixing the acoustic guitar on "My Fellow Men", I still think that it is a little dull and uninteresting. The guitar melodies in the verse of "Solitary" sounded much more open at some point during the mixing, but I messed it up somehow, and never quite got the original feeling back. Now, it seems as if they lack a little depth. I wish I had been able to bring out the drums more in the chorus of "All this Suffering", but every time I tried to make the kick and snare drum louder, they trampled every other instrument under them. I am very content with how the ending of "Outta Dis World" with the string quartet turned out, but mixing that part definitely required settling with a compromise. With the strings, vocals and quite detailed guitar and drum parts there was so much happening that I was never quite able to give all the instruments the space they might have needed. All this being said I realize that nothing I ever do will be perfect, no matter for how long I work on it.

The next time I record an album there are a few things I think I should keep in mind to reach an even better result. I should remember to be unafraid to make unconventional decisions considering the mixing of the songs. I should refrain from mixing any of the songs at all before all the instruments have been recorded, since making "Sterner Stuff" proved that most of the mixing I did in such a manner was in vain. I would also like to focus on applying compression, equalization and other effects whilst recording, on the hardware level, to make the material I am going to mix sound better from the start. Additionally, I should also concentrate on trying to make the arrangements work on the songs' terms. While everything did indeed work out in the end for "Sterner Stuff", if I had given some of the guitar and bass parts more thought while creating them during the recording I might have had an easier time mixing the songs.

# 6. Conclusion

### 6.1 Prospects for "Sterner Stuff"

To say that alternative rock music sung in English is not very popular in Finland at this moment is an understatement of massive proportions. The musical climate here is very challenging for anything other than pop, hip-hop, r'n'b or rap music sung in Finnish. Nevertheless, I am going to try to make a living out of making my own music. I have been honing my skills as a songwriter all my life, and thus it would make no sense to quit now when I have something to show for it (my albums and degrees in music), just because the current trends do not support it. Times change and there are all kinds of music being made and listened to in Finland even now, it might just not be in the mainstream or very profitable. I am also aiming at allowing people in foreign countries to listen to "Sterner Stuff".

I am already in the process of contacting different labels and proposing "Sterner Stuff" to them as a complete package ready for publishing. Unfortunately it is not very realistic to be optimistic about getting a record deal just by emailing a company, be it big or small. That is why I am going to also focus on performing live, and creating some social media buzz. By doing that I hope to meet more musicians that I can work with and perhaps attract attention from publishers and public relations professionals that might help me with the release of "Sterner Stuff". One option in the age of the internet is to go about publishing completely without any bigger entity whatsoever, and just self manage the release. If I were to do that, I think I would need to figure out a better strategy and plan over and above simply uploading the songs to YouTube and linking them to my followers on Facebook. That alone would probably not attract the number of listeners that I would find satisfying after a year of hard work making an album such as "Sterner Stuff".

In conclusion as of yet it is unclear how or when "Sterner Stuff" is going to be heard by people other than my friends and myself. I am mentally prepared to wait for the release for quite some time. While it would be very nice to simply throw the album out there for the world to hear, I have done that enough times in my life to realize it would not lead to a happy end for a piece of art that has had hours upon hours spent on it, by me.

### 6.2 Summary

My second solo album made under the name "Joonas Holmén + The Lossy Codecs", "Sterner Stuff", is an alternative rock album for which I composed and sang all the songs, played almost all the instruments, recorded the tracks, mixed the songs and was the overseer and producer of the whole project. This was done with a free form schedule between the summer of 2016 and the summer of 2017. Some of the songs on the album were very old, from the 2000s, while some were brand new when the making of the album commenced.

I created the whole album, taking influences from the artists I have listened to in my life, such as The Smashing Pumpkins, Dinosaur Jr and Pedro the Lion. My passion for composing songs started when I was very young, and my classical piano studies, along with simply being a fan of alternative rock music, and studying music technology in Sibelius-Academy, allowed me to make "Sterner Stuff".

One of my main objectives was to make an album in which the songs included were represented at their best. I wanted to make an album that had personality and sounded good to me, and in this respect I think I succeeded. I used many albums from artists I like, including The Smashing Pumpkins, Radiohead, Mew and Interpol as references, and was successfully able to include interesting sonic elements from them on "Sterner Stuff".

This paper includes a detailed outline of the composing, recording, mixing and mastering process of the album. While the composing happened over a long period of time, the other phases were completed within a year and were carried out in the studios of Sibelius-Academy, at a church's basement and at my home.

While I failed in a few small aspects in creating "Sterner Stuff", the album turned out to be fairly close to my original vision, and thus I consider the successes to greatly overshadow the minor failures.

# 6.3 Attachments

# 6.3.1 List of Attachments

Joonas Holmén + The Lossy Codecs - Sterner Stuff (Audio CD) Schedule References Lyrics

## 6.3.2 Schedule

A project such as this, spanning over such a long time and having such diverse phases, renders it impossible to come up with a completely accurate schedule. The following information concerning the schedule is my best-guess estimate. Also notable is the fact that the phases are not as clear cut as in my analysis. Not all these processes took place in isolation from each other, and there was considerable overlap at times, but for the sake of clarity they are, however, listed as separate here.

- Composing 200 hours
- Arranging 50 hours
- Practicing 60 hours
- Pre-production 30 hours
- Recording **250 hours**:
  - Drums **40 hours** Guitars **100 hours** Bass **30 hours** Synthesizers and keys **30 hours** Vocals **40 hours** Percussion and strings **10 hours**
- Editing 100 hours
- Mixing 150 hours
- Documenting and written work 70 hours
- Miscellaneous (working with other musicians, writing notes, commutes etc.) 40 hours

According to this estimate making "Sterner Stuff" took 950 hours.

## 6.3.3 References

Music:

<u>1</u> Epic MegaGames (March 20, 1994): "Jazz Jackrabbit", computer game
<u>5</u> Pedro the Lion: "Achilles Heel" (Jade Tree) May 25, 2004
<u>6</u> Mew: "Frengers" (Sony) April 7, 2003
<u>7</u> Interpol: "Our Love to Admire" (Capitol Records) July 10, 2007
<u>8</u> The Smashing Pumpkins: "Siamese Dream" (Virgin) July 27, 1993
<u>9</u> Dinosaur Jr: "Farm" (Jagjaguwar) June 23, 2009
<u>10</u> Radiohead: "OK Computer" (Parlophone) June 16, 1997
<u>11</u> The Smashing Pumpkins: "Mellon Collie and the Infinite Sadness" (Virgin) October 23, 1995
<u>15</u> Mew: "+ -" (Universal) April 21, 2015
<u>16</u> Dinosaur Jr: "Beyond" (Fat Possum) May 1, 2007

Written works:

<u>2</u> Read more: Tracker's handbook, a web page: https://resources.openmpt.org/tracker\_handbook/ handbook.htm

<u>19</u> Read more about stereo recording techniques: Laaksonen, Jukka: Äänityön kivijalka (Idemco Oy, Riffi-julkaisut), 2006. Pages 272-287 (in Finnish).

Definitions and other:

 $\underline{3}$  "Hi-fi" refers to high-fidelity, as in high-quality reproduction of sound

 $\underline{4}$  "Lo-fi" refers to low-fidelity and is the antonym of hi-fi. Lo-fi is also a genre of music in which quirks of low-quality sound are embraced.

<u>12</u> "Overdubbing" is a recording technique in which musical content is recorded twice or more and these recordings are layered on top of each other

<u>13</u> "Alternative rock" is a style of rock music that emerged in the 1980s with many sub-genres and which is inspired by many different musical styles

<u>14</u> "Indie rock" is a genre originating from the 1980s defined by the sound of bands on small independent labels. It is a sub-genre of Alternative Rock.

 $\underline{17}$  "Shoegaze" is a sub-genre of indie rock in which effects are used to create a blurry, psychedelic atmosphere

18 "Star Trek: The Next Generation" is a science fiction TV series produced by Paramount, which originally ran from September 28, 1987 to May 23, 1994

20 "ReWire" is a software protocol that allows audio signals to be routed from a piece of software to another

21 "Multiband compression" means applying compression to specific frequency bands of a signal

<u>22</u> "Parallel compression" is a technique in which a dry, or slightly compressed signal is mixed with a heavily compressed one

 $\underline{23}$  "Side-chaining" is the act of controlling an audio processor with a signal other than the one being processed

 $\underline{24}$  A "bit crusher" is a digital audio effect which reduces the quality of the audio signal by lowering its bit depth and/or sample rate

<u>25</u> "Loudness wars" refers to a trend of increasing audio levels in recordings which started in the 2000s

Pictures and lyrics (c) Joonas Holmén.

## 6.3.4 Lyrics

1. My Fellow Men

For a while I thought that I needed a simple life just like in most dreams

For a while the sun was shining so clearly in the sky where vanity lies

But then those thoughts went away and I started thinking that I'd stay alone for a while but now I'm old and dry

For a while I thought that I was needed For a while I thought I meant something

But to my fellow men I'm no proper reason to get out of bed and head for the unknown

In the eyes of my God I have a purpose, but for feeble me it's really hard to see and I have no such courage, as to be abandoned by my fellow men

And if I had a wife I'd promise that I'd stay by her side even if I'm old and dry

And when she'd eventually start to die I promise I'd retire to spend some quality time with my slowly decaying wife

But that's just a chance of one in a million and I'd rather die than try to live that life

2. Come of Age

Come of age you'll want to die and who am I to deny that impulse? A faithless soul won't realize we are destined just to

die in this hell and live as well

Nothing ever changes for the good,

no matter how it should, no matter how you think it could

The best of us ain't here for long and that's how I know we ain't a part of that group The living go on to die Most of the dead wait for

a salvation gone Correct me if I'm wrong

But nothing ever changes for the good So I pray it would But I can't feel my faith like I should Death is afoot stomping on my

lungs and brain My dark and deranged silent side I hate

that won't save you I wouldn't save you even if I could

Cos when you were by that fire hearing stories about desires so bad that you could puke it is all true

in this world that gets worse and worse Nothing ever changes for the good and the love that should exist will one day surely cease to

#### <u>3. Acid</u>

Your head cut and split Your dreams purposely built

You can not forsake me now that I'm all alone

Your mind lost in acid

Now you can hardly breathe here where you have no need

All feeling lost or plastic

You'll never get out here alive and well

All's well that ends well but this won't

So now you know the truth Your future hangs around those things that you can't even do And if you walk right through that vicious circle you'll be tied The commoners declare that you are simply out of your mind

You'll never get out here alive and well All's well that ends well but this won't Just keep on breathing with this beat severe All's well that ends well but this won't ever

#### 4. Solitary

For one moment in this young boy's life he felt like he would be all right just hanging with his mind and no-one else by his side

For a fleeting second this deceiving lie was the truth for him So he went along just singing his own songs

and when it's like that.. Well, you don't know what you lack

It's so easy to be alone when you only care about your own songs and at night before you sleep there's nothing in your mind You can be that way forever You and I, we don't know what we've lost for we think about other lives and no-ones ready for what they find

A severe concussion, a ruthless strike came along his life and made him realize that the world in his mind has no company

and when it's like that it's not so easy to be alone when you don't only care about your own songs and at night before you sleep there's all this stuff in your mind You can't be that way forever You and I, we don't know what we've got inside our deepest thoughts and desires and no-one's ready for what they find There's no darker place devoid of light How could have he realized

that the truth within would be the end of him But when he did he refused to be solitary He refused his lies

Cos it's not so easy to be alone when you don't only care about your own songs and at night before you sleep there's sterner stuff in your mind You can't be that way forever You and I, we don't know what we've got inside our deepest thoughts and desires and no-one's ready for what they find

So we refuse to be solitary We refuse our lies or at least we try

### 5. The Measure of a Man

I'm forever in my place but you are not in yours I don't care of my place but you're content with yours It's like heaven decided that my fate is pain while you remain in control of your game and you're good at it too

Cos when it comes down to it I don't think I belong in this world of yours where the good succeed and the bad people don't

Cos the measure of a man might be hard to understand when we don't even set where we are born

Yet I'm not forever hopeless like one might think I put my faith in some other place in some other King

It's like heaven decided that I won't be alone

even amidst all this chaos of the world you call your own

Cos when it comes down to it I don't think I belong in this world of yours where the good succeed and the bad people don't Cos the measure of a man might be hard to understand when we don't even set where we are born and we have not seen the corners of it all We can't explain the power of a song and even though we've tried we can't make up our minds about the reasons behind it all

#### 6. Launching Down on Tracks

Baby, how can you say you'll mess it up either way? Don't dare your maker Launching down on tracks You'll waste more than I can say

Let me out Puny, soulless doubt Withering breeze from the enemy Scream and shout Puny, soulless doubt I ache to see and I ache to feel

but in this land It's enough to understand what it takes to be a man

Baby, what's there more to say? You'll take the risk anyway Bring yourself up Launching down on tracks End all longing End all hurt

While in this land We can never understand how we begun and how we'll end

Let me out Puny, soulless doubt Withering breeze From the enemy Scream and shout Puny, soulless doubt I ache to see and I ache to feel

Give or take a few years, we'll have a taste and then it will be too late

So boast with all you've got

I don't think I'll mind you It's nothing new

So go ahead and gloat It will come to haunt you It's nothing new

#### 7. Sin

We made this world a mess You let us digress You gave us hearts so pure but let us ruin it all

At least by some kind of chance perhaps by fate enhanced You turned me around and of Your wounds I am proud They are a shroud over sin, our disgrace and biggest fault Impenetrable, strong like a fort only a true God can build Sometimes I can see no difference in deities just as intense as this world is and You but You allow me to see

You gave us your word Made us messengers on this earth so we could be saved and our sin erased

People claim it's hard to reach you People claim it's hard to see through our bodies and anxieties that Your son is our savior

He is our savior

over sin, our disgrace and biggest fault Impossible to clean or to annul at least by human means Sometimes I can see no difference in a book about You or about someone else but You allow me to see You give me belief

#### 8. All this Suffering

Your heartache dances with every word The struggle's endless, hope is no beacon for your grind ever again

Love ain't suicide Sue is lovecide Place your trust in sinners for some waste of time There was a beginning, there will be an end to all this suffering

The earth keeps spinning its every turn Your lungs keep breathing even if you just waste your breath again and again

Love ain't suicide Sue is lovecide Open your heart and return to find a fire

There was a beginning, there will be an end to all this suffering

And when you go one will stay by your side there where you are lost you are found again and again

There was a beginning, there will be an end to all this suffering

#### 9. The Loneliest Guys

The day that I get to heaven I hope that I get to know why

all good things had to die, at least for a while and why while in this life you sometimes left me cry

and why while married men only live for their wives the loneliest guys sit around and wait for their only God to recognize their pain of being alive

#### Ain't it real enough for you?

How many times will you cry seemingly in vain is how many times I will soothe your pain How many times will you shout through the dark of night is how many times I will show you light

The day that I get to heaven I hope that I get to know why

all good things had to die,

at least for a while and why while in this life you sometimes left me cry

and why while married men only live for their wives the loneliest guys sit around and wait for their only God to recognize their pain of being alive

#### Ain't it real enough for you?

How many times will you cry seemingly in vain is how many times I will soothe your pain How many times will you shout through the dark of night is how many times I will show you light

How many times is someone's chance to help me on my way taken away by my own selfish act is how many times you will lead me back

The day that I get to heaven I'm sure that I get to know why

all good things had to die, at least for a while and why while in this life you sometimes left me cry

and why while married men only live for their wives the loneliest guys sit around and wait for their only God to recognize their pain of being alive, the darkness that's inside them They need the savior that originally gave them their painful life

### 10. Outta Dis World

Gotta get me some outta dis world You'll know when I'm gone when I'm not out there Now that you know where I've gone Outta dis world There's no place like home when your mind is out there Now that you know where I've gone

I'm gonna step on it and be on my way out this town I'm gonna go for it and fly all the way to the sun

and outta dis world I'm already lost, why not go out there?

Now that you know where I've gone

I'm gonna step on it and be on my way out this town I'm gonna go for it and fly all the way to the sun

Yeah, I admit I'm guilty as charged Yeah, I am Yeah, I admit I'm in some deep shit, ain't I?

Now that you know where I've gone will you listen to my songs?