Awake in a Dreamlike Notion

Searching for a Greater Experience of Immersion in Music

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2015

Master of Fine Arts
Music Performance

Luleå University of Technology
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AWAKE IN A DREAMLIKE NOTION

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Master's thesis in composition

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Abstract

This thesis is about an exploration of different methods and technologies to heighten the experience of immersion in a conceptual work of music, most specifically how I use ASMR in a musical context, sound effects within songs and how I compose a piece of music to relax the listener. I work with recording instruments, choir, sound effects and environmental sounds with a dummy head to enhance the experience of the music and the concept. In the process, I describe how I use the different methods to create some of the musical sections of the conceptual work and answer the research questions. The music I compose to relax the listener turns out to be not as relaxing as intended but still contributes to the mood of the story. I also find that the use of sound effects and sound environments within songs works best when there are not too many instruments involved. Overall, there is still a success in creating an immersive experience.

Keywords: immersion, conceptual music, ASMR, binaural recording
Preface

I would like to thank some people for their contribution to this work;

Frida Johansson Claesson for helping me with recording the drums in studio 9 at the Department of Arts, Communication and Education in Piteå.

Robin Jonsson for his fantastic and creative bass playing.

Josefine Gellwar Madsen for her amazing voice and musicality but also for the convenience of her access to the basement of the mall Småstaden in central Piteå and her roleplaying footsteps as a warden at the mental institution.

Mikael Roos for his great performance on the bass clarinet.

Gary Verkade for his excellent interpretation of Dr. Malcolm Johnson.

I especially would like to thank some of the most inspiring ASMR artists that I have enjoyed very much the last couple of years. Since I do not know their real names I will instead call them by their usernames on YouTube. I have put links to their respective pages on YouTube in the reference section of this text.

MassageASMR
GentleWhispering
TheUKASMR
ASMRrequests
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1. Introduction and background

In March 2013, I discovered a phenomenon called Autonomous Sensory Meridian Response (ASMR). On YouTube I found lots of people recording themselves as they whispered close to the microphones and moved around them to make it feel like I was in the same room (headphones are required to experience ASMR). I soon realised that I became really relaxed while listening to the gentle whisperings and brushing of the ears (microphones) and it has since helped me fall asleep many times. ASMR can be described as tingles or a pleasant sensation in the scalp or neck when being taken care of by other people e.g. when you are visiting the doctor and are being examined. It is a bit difficult to prove its existence as some people do not experience the tingles, I however do feel it and enjoy the relaxation it can bring. As I am quite fond of recording music and writing drama I felt that it would be interesting to apply ASMR in an extensive recorded work and merge it with the music and lyrics to heighten the listening experience.

I grew up listening to a lot of music made for video games and movies which, combined with playing the drums and guitar, led to my interest in creating music and especially music with some concept or story. Many albums that I listened to in my teenage years were driven by a concept and as I listened to the combination of music, lyrics and sound effects along with looking at the artwork in the booklet, it gave me a greater experience of being immersed into the concept. My first memory of such an immersive event is from Finland in the summer of 2001. I had been listening a lot to a band called Cradle of Filth and especially to their album Cruelty and the Beast. On one particular day in July I was sitting in my little cabin (located in the garden of our summer house) and it was raining outside. Through the window I could see that the trees had this deep emerald colour that only occurs during summer rain. I was listening to a track called Bathory Aria and in that song there is an intermission in the metal music with just piano and strings playing and the vocalist talking. There are also sound effects consisting of (what I thought at that time as being) rain, crows and a drawbridge falling down. I later realized, as I read the lyrics, that the sound of rain was actually the sound of a pyre. Anyway, when I heard all this in the context where I was situated at the time, it really took me to a new level of experiencing music, as the combination of sounds, music, and lyrics painted a layer of another world on to the reality I saw through the window. I have had similar experiences when listening to conceptual music of this kind and I find it to be a treasure.
which I have never reflected upon before. It is almost like film or theatre but in a musical shape. I first heard Cradle of Filth when I was 12 years old and they soon became the band I listened to most until I was 17 and they obviously planted the theatrical music in me and made it an important ingredient in my musical life.

In this text I have chosen to use the words; conceptual work of music for my musical part instead of the ordinary term; concept album, since I do not intend on making a CD of this project, mainly because no one uses them anymore, but also because of the costs involved. However, my work may of course be looked upon as a concept album if one desires to do so.

2. Objective

The objective is to explore various methods and technologies in the creation of a conceptual work of music that heightens the experience of immersion.

2.1. Research questions

- How do I achieve the effects of ASMR in a musical context?
- In what way can I extend the use of sound effects and environmental sounds within a song?
- How do I compose a piece of music that can help relax the listeners and make them more receptive to ASMR?

3. Method and material

I have studied the use of sound environments and sound effects in music from different bands that have inspired the project, the most prominent being the British metal band Cradle of Filth.
I have analysed how ASMR works and what triggers make me most relaxed.

I have composed a conceptual work of music.

I have explored various technologies and methods that could heighten the experience of immersion and thereafter used the different methods and technologies in various parts of the musical work.

I also feel that I should mention some of the important equipment that I have used in the process. First and most important is the Neumann KU 100 dummy head which is a fake head with rubber ears and built-in microphones to recreate a 3D environment. I have used the dummy head for all the binaural recordings such as choir and environmental sounds but also for most of the ASMR triggers.

Other equipment and software:

- **Røde NT1-A**: A large diaphragm condenser microphone for vocals and other acoustic instruments.
- **Zoom H4n Handy Recorder**: Used when recording with the dummy head in the basement of Småstaden (which is a mall located in central Piteå), but also for recording various sounds using the built-in microphones.
- The orchestral arrangements have been made using East West Symphonic Orchestra, which is a sample library of real recorded orchestral instruments that can be played using a MIDI keyboard.
- I have used *Paul's extreme sound stretch* which is a program where you can stretch audio files, basically to eternity.
- Sibelius 6 has been used for notation.
- I have recorded and mixed everything in Cubase 7 except the drums which were recorded with Protools at Studio 9 at the Department of Arts, Communication and Education and later transferred into Cubase for mixing at my studio.

### 3.1. What triggers ASMR?

During the past two years, I have been listening a lot to ASMR artists on YouTube as they have tried out many different ways to trigger the tingling sensations. I am very receptive to the effect and have
therefore been able to use it to fall asleep (which is quite a problem for me since my mind is constantly murmuring with ideas and thoughts). The sounds from someone talking, whispering, performing a cranial nerve examination or just minding their own business, is for me very relaxing and takes away some of the attention of my own thoughts. I have also been thinking a lot about how to implement the effects of ASMR into an artistic context and how dependent the triggering methods are of being softly performed or sparingly layered when recorded, to be able to work properly. As I started working with this thesis in May 2014, I began researching the many methods that my favourite ASMR artists use to trigger the phenomenon. I made a list of the ones that triggered me most, including whispering, breathing sounds and blowing air in to the “ears”. Then I started thinking about them in a musical context and how I could use them effectively as a part of the concept.

3.2. Concept albums and the use of sounds

A concept album is a recorded work of music with lyrics and other thematic elements which forms a unity that spans over the entire album and not like many ordinary recorded albums where there is no connection between the individual songs. A very famous concept album would be *The Wall* by Pink Floyd. It includes lots of sound effects and speaking even before it was adapted into a movie and it also has a storyline which runs through the entire album. As I mentioned in the introduction and background I grew up listening a lot to the metal band Cradle of Filth and they have made a lot of concept albums over the years. Since they use some sound effects mostly of the environmental type I felt that it would be nice to try and develop that concept further by having sounds running through an entire song or at least at places where it can be heard. During the introductory piano part of their song *Her Ghost in the Fog* (located on the album *Midian*), Cradle of Filth uses the wind as an environmental sound and as the verse starts there are no vocals; instead they invited Doug Bradley (most commonly known for his role as Pinhead in the Hellraiser movies) to record some spoken lines. The first sentence in *Her Ghost in the Fog*: “The moon, she hangs like a cruel portrait soft winds whisper the biddings of trees”, created a lot of immersion for me when I heard the song for the first time, mostly because I thought the lyrics were fitting so well after the wind sounds and the heavy piano introduction but also, as with the event in Finland I mentioned in the introduction and background, the setting I was situated in played a big role for the immersive effect. It was in early November of 2000 and it was snowing heavily outside for the first time of the season. The whole album (*Midian*) contains a lot of winter mood in the use of certain instruments (such as a bell
sounding keyboard patch used in the song Saffron's Curse), within the lyrics and through the color schemes of the artwork in the booklet. I don't know if this is something the band had intended when creating the album, but the memory of the experience has etched itself within me and every year, when the first snow is falling, I listen through Midian to recreate the mood and emotions I felt inside me when taking part of this work of art so many years ago.

3.3. Reality through headphones

I first started to get interested in binaural recording when a friend showed me a virtual barber shop on YouTube. It is a recording made by a company called QSound Labs as a demonstration of binaural audio technology. The realism in the perception of being in a room and getting a haircut was an overwhelming experience for me and as I sat in my living room, listening through my headphones, I realized that I would like to implement the technology in a musical context sometime. Binaural recording is a method using two microphones at the same distance apart from each other as the ears of the human head. To achieve a true three dimensional sound, a dummy head of some sort is required and two omnidirectional microphones. The head is required to create the “head shadow” which enables us to hear the location of a sound due to the interaural time differences (ITDs), meaning that if a sound is coming from, say the left side, it arrives at the ears at slightly different moments since it first bounces on the reflective area at the right-hand side before entering the right ear. Recordings in this fashion must be played back through headphones to have the desired effect as the listener's ears should be aligned with the position of the microphones.

4. Time to listen

Now would be a good time to listen to the entire work Adrift in the Sky-like Ocean and I feel that I should explain some details about the listening process to further enhance the experience. This album is mixed for listening through headphones as there are a lot of 3D recordings which are not perceptible when listening through speakers, so headphones are required. You should give the entire album an hour for the listening but also some extra time before pressing play to find yourself a nice place where you can either lie down or sit comfortably. It is also good if you can situate yourself in
such a way so that you do not become disturbed or distracted during your listening session. You may close your eyes if you like and just let the album become your occupation for the coming hour. I also feel that I have the responsibility to warn against listening to this album while driving, taking a walk or running since the 3D recorded sounds could surprise and fool the brain thus creating a dangerous situation should you be in a traffic environment. This would also go against my prescriptions of relaxing and closing your eyes.

Enjoy!

Adrift in the Sky-like Ocean:
https://www.dropbox.com/sh/lyd5vdabkmkwitq/AACVOSkpL3fDIazWQJ0YVBIna?dl=0

5. The artistic process

5.1. The making of a conceptual work of music

Since I refer to many of the songs in the text, I will list them below to get an overview of the given order.

I. A Sedative Overture
II. Amber Flowers
III. A Subconscious Game
IV. Giants Under Stars Aligned
V. By the Blue Plains
VI. The Silence Upon These Walls
VII. Light Through the Window
VIII. Sunsails/Adrift in the Sky-like Ocean
IX. Green Shores Ahead
X. A Seashell in My Hand
XI. At the Harvest of My Life
5.1.1. The Story

*Adrift in the Sky-like Ocean*, is the title of the musical work and the story is set in the 1940’s. It concerns a man who is in his thirties and has been locked inside a mental institution for the past 15 years. He was very much alone as a child and would always fantasise about the giant stones, scattered on the meadow just outside his house, as being his faithful servants carrying him through the beautiful green surroundings (*Giants Under Stars Aligned*). He also saw many strange but subtle things which he believed to be real. When he grew older he had a vision of a hundred men arriving in a ship from the sky asking him to go with them, but he was scared and declined the offer (*By the Blue Plains*). As he tried to explain the vision to his parents they believed him to be mentally ill and therefore sent him to a mental institution. During the past 15 years not a single person has ever visited him, not even his parents (*Amber Flowers*). The doctor at the institution (Dr. Malcolm Johnson) tries to help the man but has certain ways of doing so which do not help at all. When Dr. Johnson decides to try and help his patient by using ECT (Electroconvulsive Therapy), the man loses his memories and becomes mentally numb. One very early morning he is woken by a light, shining through his window. He is trying hard to see the source of the light but it is too strong and he is suddenly grabbed by an invisible force and starts soaring through the walls and keeps floating through the hallways and rooms of the hospital. Finally he ascends through the roof and finds himself high up in the sky. He can see the hospital disappear below him as his body seems to be falling upwards at great speed and is being plunged into a vast sky-like ocean (*Light Through the Window*). He is calm and enjoys the serenity of the place. The stars shine beneath him in the dark deep and the ocean stretches out above him with its peaceful light blue hue (*Sun sails/Adrift in the Sky-like Ocean*). After floating a while in the serene environment he suddenly breaks the surface of the water. He sees a distant green shore at the horizon and is being carried through the waves until he reaches it (*Green Shores Ahead*). As he is sitting on the shoreline watching the sunrise, he notices another man standing further down. When approaching him, he learns that it is himself from the past and that he has traveled through time to warn him of the coming events (*A Seashell in My Hand*). The giant flying ship arrives once again and this time the man from the past decides to follow the others. As the ship leaves and disappears in the morning sky, his future self, being left on the green island makes his way through the woods and discovers that it resembles his childhood place. But things have changed, his stone servants lie lifeless on the ground and the weather is grey and damp. He is no longer the child he once was and he feels great sadness as he realizes that he has missed his youth being locked inside the mental institution. Even though he is not in the same world anymore, the surroundings make him feel at home, and again he stands atop the stones (*At the Harvest of My Life*).
5.1.2. The Music

Ever since I was 14, I have dreamed of creating my own conceptual album and record everything myself as it is one of the most enjoyable things I can think of. I have, however, never been able to finish something because of my change of direction all the time. I had, for example, quite a good idea for a concept album back in 2009 and I did write a couple of songs and had plenty of recorded ideas that could become songs as well. But since I am something of a perfectionist I did not feel it was good enough so I stalled the developing process and started thinking of new ideas. A year later, when I started studying composition in Piteå, I left the concept album ideas on the shelf and focused solely on learning and developing my orchestral writing skills. As I was trying to come up with an idea for my master's thesis during the spring of 2014 I realized that I wanted to take the opportunity and create a concept album and actually finish it this time. I felt that the pressure of having to finalize the thesis would force me, in a good way, to compose and write and get everything done.

I had started to come up with an idea for the story already during the summer of 2013 and I also had the title of the work (Adrift in the Sky-like Ocean). I really liked the concept and developed it further during the autumn of 2013. The musical style that I wanted to work with was some kind of experimental soft rock, since this is what I usually compose when having a guitar in my hands and I really enjoy the expressive tool bar it provides. Also, since this work would be containing other elements than just music and lyrics, I felt that I would have a contrast palette to work with as well.

In the summer of 2014 I started working more effectively with composing the songs and I already had the full song By the Blue Plains but also some demos of Giants Under Stars Aligned and At the Harvest of My Life. The fact that these songs are especially important for the story and lie scattered across the entire work, made it easier for me to continue the compositional process and create the other songs to fit in between. In September I traveled to my parents house to look after it when they where abroad for about three weeks. This gave me a fantastic opportunity to both compose and record demos of the songs but also to get the chance to practice and come up with the drum parts as well. The countryside environment really helped me to be relaxed and very inspired all the time and it was a strange feeling to be able to come up with ideas and sometimes even whole songs on one single day. This was something I had not experienced before since I had always stopped working with a concept when just having a couple of demos for songs and therefore never got the chance to be really drawn into the process and thus let the latest song inspire the new one. This may perhaps only apply to the making of a conceptual piece of music since you would want the songs to be
connected with each other. One example where I have reused material is the guitar melody in octaves on the chorus of *Giants Under Stars Aligned*, which I came up with in September and when, a couple of months later, I wrote the song *Amber Flowers*, I decided to use the melody as the lead part of the choir at the end. This worked very nicely, much because of the same chord progression being used in the background, but I also felt that the two different songs created a connection since the lyrics in both of them refers to the man as a child. In *Amber Flowers* it is a symbolic use of the word “child”, which suggests that the man was still young when he first arrived at the mental institution and in *Giants Under Stars Aligned* he is referred to as the white-haired child. The lyrics are also sung by the choir which brings the aspect of timbre in to the picture. The melody, chord progression and choir all together become the musical theme for the main character's childhood. Themes of this kind are most commonly used in music for motion pictures and musicals such as *Star Wars* (1977) and *The Phantom of the Opera* (1986) but I found it very enjoyable to apply that technique when creating emotions connected with the main character and it suits a concept album very well.

I have also noticed how unintended musical material has emerged because of myself being both consciously and subconsciously involved with the music at all times during the compositional process. One example would be the start of *Amber Flowers* and the lone electric guitar line which has come from a certain gesture, involving notes from the F-minor scale (using a capo on the first fret), that I like to play on the guitar because it includes both picking and the pull off technique which creates a smooth transition between the different notes. I have been fooling around with that gesture for over a year and come up with different ways to play and it has kind of merged with my subconscious. This has been the building stone for some of the songs but without me being aware of it until afterwards. The guitar on the verses of *A Subconscious Game* is also made out of this gesture.

5.2. Concerning vocals

During the early autumn I had been thinking a lot about how to create some variation in the storytelling by assigning two roles to different registers of my vocal range (since I was to be the only singer in this project). I thought that it would be interesting to let my lower range serve as a narrator of the story and let him sing about the main character in a third person perspective and assign the middle and higher register of my voice to the role of the main character singing about himself in first person. But I soon felt that I did not want to compromise when writing the vocal parts for the main character and be locked with the concept of not going lower than a certain note. I wanted to
let the expression of the lyrics and songs decide in which register I should sing so I dropped that idea and thought that it might be best just to let the lead vocals do all the storytelling. However, later in November I realised that I could perhaps extend the use of harmony vocals and create a third vocal presence in the shape of a choir that could have the narrating role and not contain a distinct lead vocal part. I really liked this concept and started developing it further. Since I had made some test recordings in May 2014 I knew that the dummy head was really nice to use for harmony vocals so I thought that perhaps it would be better to let the choir be recorded in that fashion and let the lead and harmony vocals be recorded and panned the usual way (i.e. mono recording with one microphone and panned left and right). I thought of having a large choir recording the parts but then I realized that it would be impossible to enclose the listener, since a choir, consisting of 20 people or so, would not fit around the dummy head at a close range. So I decided to lay down all the tracks myself but I still felt that the choir should be of some difference in timbre and expression and that I would therefore have to use another voice along with my own, so I asked my friend Josefine Gellwar Madsen, who is a fantastic singer, if she would like to record the choir parts with me. Luckily she said yes and I soon started rethinking some vocal parts on the opening song.

The time passed and I worked with recording all the songs until I had an opportunity to borrow the dummy head from the school and record the choir parts for the opening song. I had two vocal lines that I was going to sing, one main melody and one harmony part. I started by trying out different approaches to my positions in relation to the dummy head. My spontaneous idea was to record each of the lines eight times by placing myself at different locations around the head (that would be in a fixed position) and thus enclose the listener within the choir. I named the locations of the dummy head as following: Mid, MR (Mid Right), R (Right), ML (Mid Left), L (Left), Back, BR (Back Right), BL (Back Left). In fact much the same as the locations on a compass. (See fig. 1.)

Fig. 1. *The locations around the dummy head (seen from above).*
So I recorded my vocal line eight times (one per location) and approximately 25 centimeters away from the dummy head (I used a pop filter to eliminate p, t, and k sounds, see fig. 2.) as I found that distance to be close enough to to enclose the listener but not too close as that would make the choir stand out to much in the mix. The first thing I noticed when I listened to it afterwards was how the Back, BR and BL takes did not add much to the idea of enclosure and I realized it had to do with the choir being a part of a song containing drums, bass, guitars and orchestral arrangements thus making the perception of the surrounding choir inaudible and therefore also unfelt. I listened to the choir only and there was a slight difference having the three back locations but not enough in relation to the amount of extra time it would take to record them. The best way to lure the brain to think a sound is coming from behind is to tell the listener that it is doing so. This is something I have learned by listening a lot to ASMR artists on YouTube since they often explain exactly what they are doing in the video. MassageASMR (who is a great ASMR artist) have a video where he is roleplaying as a doctor and is doing a scalp inspection. In this video he is moving around your head and tells you he is doing so and by knowing that, it is more easy to perceive the location of the artist. Another factor that helps you with the localization is the actual video where you can see the artist moving around you. I, however, almost never watch the videos but only listen to them and that is what I presuppose when I write about this issue of disorientation in binaural recordings. Since I am doing an audio-only piece of work, the solution of telling the listener where I am and what I am doing is not an option as that would be quite unfitting to add in the middle of a song and with the lyrics already taking up all the attention. So I decided that, since the five other locations were sufficient to get the experience of enclosure, I could let go of the Back, BR and BL approach and just work with the other five. After I had recorded my parts I invited Josefine to lay down a couple of lines in the same fashion as I had done. I already had an idea for a third harmony part which we recorded first but I also wanted a fourth line consisting of a dub an octave above the main line as this usually gives a nice effect in harmony vocals and kind of makes the entirety of the voices sound very large and intriguing.

1 ASMRmassage, scalp inspection: https://www.youtube.com/watch?v=AHSnkJeGxIU
5.3. Creating sound environments within a song

5.3.1. Rock band accompaniment

When I started getting the ideas for this work in March 2014 I felt that I really wanted to have a lot of sound effects and sound environments during the songs since this was what I had first enjoyed when listening to *Cradle of Filth*. I had already recorded a demo of the song *By the Blue Plains* so it became the first one on which I tried out sound effects and environmental sounds. It is in a perfect setting to add an environment since it takes place by the ocean and has a very direct storytelling approach in the lyrics. Obviously there had to be the sound of waves washing in on the shoreline but also the constant murmur of the ocean to set the environment. I had a sound file of a rainy day that I had recorded a year before so I located it on my computer and dragged it into the Cubase project of *By the Blue Plains*. As I had been working with some sound effects before, when working with a student based video game project, I knew what I could do with the equalizer to alter the character of my recording. I cut away quite extensively both the high and low ends to only get the murmuring mids to start with. Then by using automation\(^2\) I could sweep through the frequencies to attain the result of the washing waves. The rain track however had a problem, I had recorded it in mono (because I only had one microphone at the time) so I had to cut out several pieces of the

\(^2\) A tool in Cubase which enables you to set up an automatic control over different parameters of e.g. an equalizer.
recording and place them on different tracks to pan them left and right in order to create a stereo image. This is not a good way to go since it does not sound very realistic but it had to do for now.

*By the Blue Plains* consists of an intro, verse 1, chorus 1, a middle section (same as the intro but shorter), verse 2, chorus 2 and outro (same as the middle section). During the intro and the two equivalent parts there are only two electric guitars (aside from the other instruments ringing out) playing the melodic line which is the foundation of the song and connects all the other parts. The melodic lines are nowhere to be heard within the verses or the choruses since they are meant to be moments of recollection for the man in the story as he is trying to remember what really happened that day by the ocean. The medication and treatments at the hospital has severely reduced the main character to a state of apathy but on the inside he still dreams about other places and fantastic worlds where he could be free. So in these three places of the song it was perfect to add the oceanic environment since it would symbolise how he can still hear the setting in his head and remember the past despite his flagging memory.

One day in May, I was sitting at home reading a book when I heard a seagull yelling outside. I sprang to my feet in excitement because I knew that the sound would fit nicely in the song. The timing could not have been more perfect because I had borrowed the dummy head from school a couple of days before and still had it at home so I hurried to set it up on the balcony. It took some time to get everything in order and when it was ready I quickly started the recording and hoped for the seagull to pass by one more time. I waited a few minutes and thought that I had missed my chance when it suddenly passed by again giving me its distinct yelling. This was a very happy coincidence and I hurried to test the seagull sounds along with the waves I had created a couple of month earlier. There were only a few yells of the seagull on the recording but I still had about two minutes of ambient outdoor sounds with some other birds chirping which I really liked so I placed the seagull yells just at the beginning of the intro along with the waves and then I just let the rest of the recording, with the birds and the outdoor noise, stretch over the entire intro along with the guitars. The collection of sounds layered together struck me as very immersive and I felt happy with the result.

As the summer came I traveled to visit my parents and I had borrowed a Zoom H4 recorder from a friend at school because I was hoping on finding some nice sound sources where they live. Luckily I had the chance to go to the ocean one day and I brought the recorder with me. It was quite a stormy day and since the microphones on the H4 are very sensitive to wind, and I did not have a
wind shield, it was a hopeless task to ever achieve a great recording. I however managed to place myself beside a big rock and put the H4 recorder inside my cardigan to function as a wind shield. This worked when the wind was not so strong which resulted in me getting about 20 seconds of usable sound of waves recorded that day.

Later in August I replaced the waves I had made earlier with the ones I recorded during the summer. I located the good parts in the recording and had to copy them after one another to get the right length for the intro of the song. Since this was only a stereo recording I felt that I wanted to broaden the image a bit to avoid making it sound so narrow in headphones. I used Cubase stereo enhancer for this task and it made the recording a little wider and more open sounding. The recording of the seagull however was made with the dummy head and therefore did not need any widening. When the two recordings had been placed in the intro I heard a lot of unwanted frequencies. There was some low ventilation hum on the dummy head track and the wind noise from the waves recording took a lot of attention in the low end as well. So on the dummy head track I rolled off as much as -24 dB from 2 kHz and below because I did not need the low end of this recording since the waves was taking up that space in the frequency spectrum. I also had to cut away some of the very low end on the waves since the microphones were constantly being attacked by the wind. I made two tracks of the waves; one with a constant murmur of the sea and another one of a wave clashing in on the rocks which I faded up and down and placed in consistent intervals to get the rhythm of the waves rushing back and forth.

As the two previous sounds had been used during the intro, middle part and at the end of the song, I felt that I also wanted to have some sounds during the verses. I thought of the lyrics and where I would want to enhance the story. In the second verse there is a line that goes: “A distant ship arrived but soaring like a kite”. This line gave me the idea to create the sound of the ship and I felt that it probably had to be created by layering many different sounds but I also wanted it to move through the sound image to get the feeling of watching a gigantic ship passing by. So I started out by thinking about what it should sound like and I quickly realised that I wanted it to have an extensive low end thunder-like sound but with some aircraft type of noise along with it. The low end would not be a big issue to create since it is mainly a bass frequency without a distinct timbre. I started looking through the folder of recorded sounds I had made during the summer and I found a great sound that I had forgotten about. I had been cleaning my drum kit one day and therefore removed the resonant head of the bass drum. As I took it off to place it by the wall I heard this thundering sound when the air was struck by the surface of the drum head so I took it up again and swept it back and
forth and up and down until I found a sweet spot for the deep sound I liked. I placed the H4 on a table edge lying with the microphones pointing outwards towards me, then I sat down on my knees, took the resonant head and held it horizontally with both my arms above the microphones and gently pulled it downwards to resonate the drum head. It really sounded like it was coming from above since bass frequencies are difficult to locate. The sub bass sound was amazing and I tried different approaches with the resonant head like shaking it slow and fast to generate a rhythm that did not sound like a bass drum but just as a rhythmic bass sound.

As I now sat by the computer trying to find a decent sound to represent the flying ship: I tried out the recording of the resonant head. I located the part where I shook the head and grabbed that as my first sound. I eagerly placed it exactly where the words *ship arrived* are sung and listened to it in context with the whole mix. Now I had encountered a problem of filling out the low end frequencies with both bass guitar and deep sound effects which resulted in a messy sound image. This problem relates to the orchestration rule number one; do not argue with the basses in their regions. But naive as I am, I was still intent on using this idea and find a solution to the problem. I thought of the common mixing technique of using side chaining and immediately created a bus for the sound effect and placed a compressor in side chain mode on the bass guitar to keep its intensity down a bit when the sound effects would occur. I listened through the whole mix once again and with a much better result. The bass guitar does not stop sounding but is rather ducked so that the deep sounds can take up the required space in the mix at that particular location without there being two sources of bass. The attack and some presence are still intact on the bass guitar track so that it still feels like the rhythm section is complete. Also the verses of this song do not suffer the loss of the low end bass for a short while as it would have done in the chorus or in other songs with a more up tempo feel such as *Giants Under Stars Aligned*. Therefore I could afford to compromise in order to create an immersive scenic sound image.

Now that I had solved the problem of the dual bass register I continued to create the sound of the ship. I still wanted another deep bass sound that could stretch throughout the entire event I was working with. I remembered a desktop application called *Paul’s extreme sound stretch* which I had been informed about by a friend. I had only tried it at one occasion but had been struck by the effects the massive stretching could contribute and how it helped create totally new sounds. Therefore I took a short thump-like sound that I had located among the resonant head samples and exported it as wave file to be placed in *Paul’s extreme sound stretch*. I did not need to do much in that application to achieve my goal but I tried a different amount of stretch and finally ended up with a two-minute file instead
of the original nine seconds. The short thump sound now took a good amount of time to even start and then it was increasing in amplitude slowly for a while to finally decrease again even slower as the drum head resonated for quite a while. I implemented it along with the other bass sound but had it start earlier and end later due to its increasing and decreasing nature.

As I mentioned earlier I also wanted an aircraft type of sound and by another happy coincidence it is quite common for the Swedish air force pilots to fly over this town as their air base is located not far from here. I still had the H4 which I had borrowed and because I knew I wanted the sound of the planes rushing through the sky in the distance I was on my toes waiting for them to come. I continued working with other things in the meantime until I suddenly one day heard the approaching sound of a jet plane. I flung open my window and started the H4 as quickly as possible (which is not that quick really) and when I pressed the record button the plane was almost gone and so was the sound. But I managed to get a bit of the ominous distant aircraft sound I wanted and immediately imported it into Cubase. I only needed a short piece of the recording since it is a very brief moment where I actually wanted to have the sound as not to interrupt the vocal lines too much. I also faded that track in and out as I had done with the clashing waves to get the smooth approach rather than an instant loud sound smashing you in the face. I then had to equalize this sound as well since I needed neither the high nor the low end. I also wanted to use automation once again to sweep through the mid frequencies to create the image of a moving object. I panned the track from left to right to further enhance this effect. Then it took some time to place the different tracks on the exact correct spot to get the right amount of time where the sounds are present but also to avoid overrunning the vocals as mentioned above. I felt that the murmuring bass sound should start a bit earlier than the other two sounds so as to make the presence of the ship slowly approach the listener so that they could start wondering what that sound was and be filled with anxiousness as the roaring of the ship starts to increase in amplitude.

I encountered a problem with the seagull recording as I listened to it again in February 2015 when implementing it into the new (real) recording of the song. Since I live in a neighbourhood with apartment buildings the sound of the seagulls yelling reflects on the walls so one can hear that the recording is made among buildings and not by the open sea. However, this was a minor problem and I still felt that my seagull recording worked and filled its purpose as an oceanic environmental sound in the context.
5.3.2. Orchestral accompaniment

After I had been working with implementing the sound effects in *By the Blue Plains* and noticed the difficulties of having sounds alongside the full rock band accompaniment I decided to try out the extended use of sound effects on the song called; *A Seashell in My Hand*. This song is kind of a reprise of *By the Blue Plains* but with an orchestral background instead of the full rock band setup which I felt perhaps would be more suited for the use of sounds as the orchestral sound image does not eat up the entire frequency spectrum, mainly because the absence of a drum kit and an electric bass. The sounds from the contrabasses of my virtual orchestra are not as fat and big as those of the electric bass, mostly because they are recorded in a large orchestral hall and are not compressed they way I would use compression on the electric bass. This goes for the entire orchestra as well and I thought that it would give some headroom for additional sounds. There are, of course, a lot of instruments in the orchestra and using them all in a tutti and with strong dynamics throughout the entire song would leave no space for sound effects so it would require a balanced composed and arranged piece to achieve my goal. I chose this song as it is calm and has a medium slow tempo but also because I could experiment with the same recordings I had used on *By the Blue Plains*, at least some of them. I sat down and started coming up with some ideas on instrumentation. I wanted some kind of pattern of eighth notes played by the violins that would be the motor in the arrangement and I also wanted to have the harp and contrabass with pizzicato playing the bass notes of the chords to get some bottom end. After laying these foundations throughout the song it did not take long before I had an arrangement that I was happy with. I then recorded the vocals and started mixing a bit to get a good balance before adding the sound effects. I first of all focused on having sounds throughout the intro and the two verses since they did not contain as many instruments and were being played with softer dynamics. I essentially took the same recordings of the waves that I had used in *By the Blue Plains*, much because both of the songs are set at the same location (the shoreline by the sea) but also since it would be interesting to see the difference of using sounds within songs that resemble each other and mostly differ in accompaniment style. After adding the waves throughout the verses I also implemented some segments of the seagull recording to further enhance the sense of being at the same location as before. I listened to the intro and verses and I really liked the resemblance to the introduction of *By the Blue Plains*, with the waves washing in on the shoreline and the seagull passing by, but I was also struck with how well the sound effects worked along with the orchestra and vocals and how it really added depth to the music. However, the string section does contain a lot of mid and high frequencies which takes some attention away from the waves roaming in the same frequency area. The chorus was also a bit more
problematic than I had predicted, and adding the sound of the waves did not have a big impact on the experience as they could not be heard much through the tutti of the orchestra along with the lead and harmony vocals. I did, however, add the sounds of the waves again at the end of the song and also the sound of the giant airship leaving the shores and disappearing in the horizon.

5.3.3. Acoustic guitar accompaniment

In February 2015 I had decided that I wanted to record some environmental sounds representing the mental institution. I was calling around to different places in Piteå such as the museum and the old mental institution (Furunäsets Sjukhus) but no one seemed to fit my purpose. The old mental institution had been totally changed into a hotel which I thought was a shame since it would have been a great environment to use. I needed some heavy door and harsh corridor sounds and as I ventilated my problems to my friend Josefine she suggested the basement of the mall in central Piteå called Småstaden. She was working at a store in that mall and therefore had access to their storage room in the basement so I borrowed the Zoom H4 once again and followed Josefine to the basement. I did some test recordings of the storage room and the door and I felt that it would work. It took a month or so before I got the chance to re-enter the basement and do the real recordings. To achieve a greater experience of immersion I wanted the listener to be in the main character\\'s clothes and experience the events through his ears. I had therefore decided to record the basement session with the dummy head and by carrying it at the level of my own head I could come as close as possible to replicating the main character walking through the corridors. It worked well and the sound of the basement was very cold and reverberating so it really emphasized the desired environment of the story. At the time, I was not sure where exactly in the story I was going to use the recordings. However, as I was finished with A Seashell in My Hand I felt that I was not entirely done with exploring the area of sounds within a song, even if I had come to some conclusions about it in the two previous songs. I wanted to try one last accompaniment style along with sound effects and decided to involve the song The Silence Upon These Walls which mainly has an acoustic guitar as accompaniment but with some additional electric guitars. The point is that there are no basses to eat up the low end of the frequency range and no violins or cymbals to invade the high end. So the starting position is ideal for attaching a sound environment or effects.

I struck me that the lyrics of the song would fit nicely along with the recordings of the basement so I started aligning the song and the recordings of me and Josefine, walking through the corridors. I felt that it would symbolize the thoughts of the main character as he is being led through the halls.
of the mental institution and reflects upon the sterile environment and sadness from the wards. I was very happy when I merged the song with the recording of the basement as I could hear both the music and the sounds from us walking very clearly and I felt that it intensified the emotions of the main character. However, since the dummy head recording was too short to cover the entire song, I found that I could time the first chorus with a door being shut and thus get a nice silence along with the lyrics to really enhance the effect of the line; “The silence upon these walls”.

5.4. Composing a piece of music to relax the listener

5.4.1. Hypnosis

The idea of making the listener more receptive to ASMR came to me already during the autumn of 2014 when one evening, I stumbled upon hypnosis and started reading more about it. I found a website where one could listen to several different hypnosis sessions recorded by real doctors, so I gave it a try. I listened to a session of hypnotherapy for better sleeping recorded by Dr. Robert G. Dean and found it very relaxing but I could not, of course, dedicate myself entirely to the hypnosis since I was quite focused on analyzing what he was saying and how he was saying it. I realized that Dr. Dean was using certain phrases that he would repeat many times at different speeds while also going through the body from toe to head to relax each of the parts of the body. One of the phrases he used was; “Deep sleep and relaxation”. These words were also spoken in a soft but deep voice and with the words “deep sleep” being uttered much faster than the following “and relaxation”. This pattern of words really made me relaxed and I figured this must be a part of the hypnosis technique and was immediately curious about using something similar in my work. I thought that I could perhaps find some inspiration and some key features of the hypnosis treatments which I could then turn into a tool for composing relaxing music. The one thing that really got me inspired with the session was when Dr. Dean was guiding me down twenty steps of a flight of stairs and he counted every step as we descended. He started slowly with 20, down to 19, then 18 and 17, reminding me of the deep sleep. After descending a couple of more steps he started accelerating the counts still interacting with the words “deeper” and “deep sleep” but as we got to 11 he focused solely on counting until reaching zero, but during that time he also started increasing the depth of his voice. It also sounded as he was closing in on the microphone as we got closer to zero which kind of made me feel more drawn into his voice and the deep sleep. I really liked this part of the session as it made me very relaxed and I thought that this way of using acceleration of phrases and
increasing the depth in timbre and also to descend lower in the frequency range would work nicely as compositional methods.

5.4.2. Composing for Bass Clarinet

As I was starting to work on the composition that would serve the purpose of relaxation, my spontaneous idea was to use the bass clarinet. I felt that the lower register with its still soft timbre would be perfect for creating a soothing experience for the listener. I also wanted to use the dummy head when recording it to be able to get very close to the ears and thus work with the instrument in the same fashion as the ASMR artists do with their voices and mouth sounds. I had already asked my friend Mikael Roos if he would be interested in recording some clarinet parts for a couple of songs and he agreed. I came to think of the nice mixture of timbres resulting from having a bass clarinet and bass flute play together (I had used this combination in a piece entitled *She is waiting for her health*, composed for the ensemble *Norrbotten Neo* in December 2014), so I decided that I wanted to use these two instruments as the main components for my relaxing overture. I asked another friend, Linnea Martinius, if she would like to record the bass flute and she said yes.

Now I knew what instrumentation I was going to use, so I began listing the important parameters for achieving the expected result. The list looked something like this:

- Low mid to low frequencies
- Soft dynamics ($pp - p - mp$)
- Slow movement (tempo and note values)
- Descending pattern of notes (like the stairs in the hypnosis session)
- Use two or more bass clarinet and bass flute parts at the same time (one for each ear and perhaps in front of and behind the dummy head)

I sat down by the piano and started looking for nice chords and pattern of notes to use. At the same time I began thinking about the function of the relaxing music apart from filling that purpose. Since everything in this work is tied together by the concept and story I also wanted the introduction to be of great value for the whole and not just something thrown in as a research experiment. I had originally thought of *Amber Flowers* as the overture because of its long instrumental introduction before the vocals come in, and also because of the main character singing about how he has been locked inside for 15 years and so on. As I was now creating a piece of music that would precede the
original overture I changed the title from Overture to Amber Flowers which is more of a description of the actual events in the song and refers to the vocal phrase ‘Amber flowers carried by the wind’. I still needed a name for the new piece I was composing and I felt that having only the title Overture sounded quite unoriginal and I also had to find out what the introductory music would represent story-wise. It would of course also be a lot easier to compose the music if having the setting and mood at hand. As the purpose of the music was intended to relax I got an idea of letting the composition represent some kind of mind numbing medication kicking in as the music starts. I came up with the title A Sedative Overture and felt that it gave me a good vibe to be inspired by when composing the piece.

I decided to only use three notes per chord since I intended on placing them all in the lower register of the bass clarinet and bass flute and that including too many notes would make them start a war with each other to conquer the bass region. As I am quite fond of using chords in close position and diatonic clusters I instinctively started looking for a pattern of notes in such a way and quickly found the first chord consisting of a D, E and F♯ (the start of a regular D-major scale pattern). This is not a very exciting chord really, but I often find the simple things to end up very good when combined in the right way. I recalled the hypnosis session I had listened to and the stairs I walked down as Dr. Dean counted them for me. I knew I wanted to work with this musically and write a descending pattern of the chords to resemble the stairs, so I started trying out different locations downwards from my chord and quickly found that the pattern of first placing it a major third below, then a minor third and a minor third again, gave me a nice vibe since all the chords laid out together created a whole-tone scale which I thought was a suitable tonality for the setting I was trying to create, probably mostly because it is so commonly connected with dreamscapes in movies. However, I felt that it was a bit boring just to have the whole-tone scale so I tried changing the third chord (being F♯, G♯ and A♯) and placed the root note on G instead, thus producing a minor third interval. I also moved the G♯ to A so that I would get two disturbing notes in the whole-tone scale pattern which I felt sounded less familiar and better conveyed the desired feeling of the music. Even though I had no plans on stacking them atop each other, and therefore not make the whole-tone perceptible, this pattern of descending chords would still reflect what musical mode I used.

I was happy with my four chords and felt that they would be the essence of the composition so I started creating a score in Sibelius 6. I started the piece by letting one bass clarinet, one clarinet and one bass flute play the first two chords in the descending fashion I had come up with. Then they
played all of the four chords. I wanted this first section to be a bit bright, so I placed the instruments in the fourth octave with the clarinet starting on F4 (see fig. 3).

Fig. 3. The second system of the first page, showing the four chords (score in C).

The following bars I dedicated solely to the bass clarinet and it contains the same material as the first section of the score but lowered to the third octave to achieve the deep murmuring sound the instrument can produce. Thereafter I basically wrote down some solo passages that I felt could be used to further enhance the sensation of moving down the stairs in the hypnosis (see fig. 4).

Fig. 4. The solo passages to replicate the stairs.
I booked a recording session with Mikael and when he arrived we started off by testing different locations of the dummy head. I quickly noticed how the test recordings lacked the closeness I was looking for so I asked Mikael to play the written passage consisting of the lowest notes of the bass clarinet while I listened close to the instrument to find the right spot to place the ears of the dummy head. Since the location of the sound differs on the instrument according to which note is being played it is quite impossible to be at the exact right position at all times but as I had written everything in the low register and mostly within an octave, it was still good enough to place the dummy head at the middle of the lower region of the bass clarinet and thus covering the most important area. Our second take was better than the first one but I started to become a bit uneasy about the amount of vibrating bell noise and harshness of the tone when the bass clarinet was being so close to the ear of the dummy head. I took a moment to consider what to do and the situation was very disappointing for me since I had expected the sound to be more relaxing and as that was the original intention of the whole piece I felt that I needed to make some big changes to still achieve my goal. I decided that I would let go of the bass flute and clarinet which I only had used at the first bars of the score and I felt that they were no longer necessary as the problem of non-relaxation had occurred and that those instruments would have similar disadvantages as the bass clarinet when being close to the ears as well. I gathered myself from the disappointments and asked Mikael to play some of the material of the four chords in front of the dummy head instead to see if it would be less harsh. It was better and softer than before but it lacked the enveloping effect that I wanted so we tried recording the four chords with one part in front of the head and the two others at each of the ears. I was happy with the result and I could see the area of use for this approach even more clearly as I added a lot of reverb to the recordings. It glued the sound together and it felt right in accordance to the dreamlike setting I was hoping to create. As I had already let go of the two other instruments which made up the music, I dropped the idea of having a thoroughly composed piece and instead went for a cut-and-paste style of composing. This was because I felt that I could use the recorded material of the bass clarinet to layer them as I like and create a new composition from scratch. So we recorded some of the material in front of the head and some at each of the ears so that I would have different sounds to chose from later on.

5.4.3. The one man choir

As we were done with recording the bass clarinet I immediately started thinking of other instruments to use instead of the intended bass flute. It still had to be something soft that could be more effective for the use of relaxation and my mind started drifting towards something I had tried
a couple of weeks earlier when recording additional sounds for the work. I had been exploring different mouth sounds close to the dummy head and discovered that if I exhaled a steady but soft stream of air about 15 cm away from the head (into one of the ears) I got a sound resembling the howling wind. If I altered the openness of my mouth I could make different harmonics more or less noticeable and thus create the wind-like sound. I experimented some with it and found it very striking and ominous sounding when I started from nothing, made a slow crescendo and then accelerated at the end to suddenly close my throat and kill the stream of air. The sound resembled that of a reversed cymbal but more organic with the noticeable timbre of my voice shining through the stream of air. As I now sat thinking about the change of instrumentation I realized that the human voice has much better control over the important parameters to induce relaxation. It is much easier to work with in soft dynamics and has a gentle tone throughout the register, however, the slow tempo would become an obstacle since singing in a soft, breathy and whispering tone would require a lot of gasping for air and I did not want to have those sounds in the recording as I do not find them to be relaxing but rather having the opposite effect. If the voice would sound strained or out of air the listener might subconsciously start to strain their own throats and gasp for air themselves. Suddenly, my mind spotted a not so distant recollection of another thing I had tried a couple of months earlier when first testing the program Paul's extreme sound stretch. I had stretched a vocal line which I had recorded straight into the right ear of the dummy head. And the result had triggered emotions of anxiety and sadness and kind of opened up my mind for an other worldly dimension because of the sad sounding timbre of my stretched voice. I thought of it as an inner lamentation of a lone person floating towards a black hole and being stretched for what seems to be an eternity. This recollection was really helpful and I now began thinking of having a lamenting stretched choir to symbolize the sadness and loneliness of the main character.

As I was soaring around in my memories, recalling the emotions of the stretched vocal line, I came to think of the first time I saw 2001: A Space Odyssey (1968) by Stanley Kubrick, in which there is a scene at the beginning where the monolith appears before the apes. I remember how the choir music struck me with the emotion of anxiety but also with excitement since it was a visually strong scene, with the ominous presence of the great monolith floating in the air. The moving clusters in the choir, which start softly and then increase in intensity, create a mood of having something unfamiliar closing in and it really triggered my heart to beat faster. I did not know it at the time, but the music was from György Ligeti's Requiem and it placed itself inside me from that moment as a strong musical experience. Now I was determined to make something in the same fashion for the opening of my work. However, I would not use a large choir because of the same issues as I
mentioned in the section Concerning Vocals, being that having a large choir standing around the dummy head would not work as I wanted the sound to be very close to the head and envelop the listener in an atmosphere of anguish. I also felt that it would be quite nice if the voices of the choir are made up of the same voice as that of the main character which is also performed by myself, so I rushed to my vocal booth and set up the dummy head for recording. I did not feel the need to notate anything as I was going to perform myself, but I had to spend some time deciding exactly what to do. I thought of the length of my performance and that it had to be quite short since I wanted to stretch it a lot afterwards, but I still wanted to achieve the sound of a cluster. I came to think of glissando effects and that I could sing a fast falling glissando and dub it five times around the dummy head. If I did this without any metronome I would get some difference between the dubs which would result in a cluster of notes as they would descend at slightly different times.

I decided to start at a B♭ (below middle C) to have a root connected with one of the notes in the bass clarinet part and be able to match them later on. I had no certain end note because I wanted to let the glissando become an exhalation to cherish the breath noises I mention earlier and I did not bother to sing beautifully since I wanted the harshness of my voice to able to shine through and by having several takes it would in itself create a unique timbre, and not some straight sounding perfectly pitched choir. The dynamics was important as well and by making a crescendo as I descended with the glissando I would get a huge amount of dynamic difference once it was stretched (I knew this since I had already tried the breathe-out effect). When I had recorded the parts I stood in the vocal booth and as I was still recording I felt that I could make some additional glissandos as well, but with another starting point and some difference in character. So I just improvised a longer glissando which ended up starting on D♭ (above middle C) and descending to A♭ below. The distance was shorter but I sang it more stretched so it took about the same amount of time as the first glissandos. Since I was in the mood and felt creative in my booth I decided to have a third glissando type that should start lower than the other two to have a wider range of notes to elaborate with in the end. The last glissandos started on E♭ (below middle C) and extended to an octave below (still improvised so there where no predetermined pattern between the different glissandos).

When I was finished I was very eager to position all the takes together and after about 30 minutes of cutting, trimming and aligning the takes atop each other, I had a result. I listened to it and it sounded dull and boring, but that was no surprise since I had recorded everything in a row and
without the sense of perfection. The goal was still to stretch the whole thing vastly and so I exported the glissandos as one wave file and with a large reverb sent to all the tracks so that it would also be processed in *Paul's extreme sound stretch*. When I imported the wave file of the “boring” glissando choir into the program, it was set to a standard stretching of 8 times which in this case resulted in a one minute long file (being 8 seconds in the beginning). I listened to the preview and it was awesome. I noticed how there was kind of a musical architecture in the stretched choir as it started softly with just some of the voices and then slowly increasing in the amount of voices and dynamics which culminated in a climax and thereafter decreased to become a murmur of breath sounds with some notes embedded within. I was very happy with the result but I thought of the length of the file and felt that I wanted it to take more time to really catch the listener and enclose them in an atmosphere of anguish but excitement, so I tried stretching it further (approximately 22 times the original file length) and ended up with a three-minute file. I now felt that I had laid out the foundation of my overture and carried on with adding the bass clarinet parts.

5.4.4. Merging the parts

I started implementing the original four chords recorded by the bass clarinet on top of the glissando choir but in comparison to the intriguing sound of the many stretched voices the bass clarinet sounded a bit boring. So I decided to process the chords in the same fashion since I was so happy with the stretching of the voices. I found that it was enough to stretch the chords about eight times (also along with the large reverb) but as I placed them on top of the choir, the deep murmuring timbre of the bass clarinet was not heard through when it was in its climax so I decided to let the first part of the piece consist of choir only and then introduce the bass clarinet where the intensity of the choir is decreasing. I placed the four stretched chords where the choir was very soft in dynamic and almost only produced the exhaling breath noise. It was a great change of environment and the closeness of the notes in the chords made them vibrate a lot which was further pronounced when being stretched. A sense of stillness and emptiness spread inside me as I listened to the altered timbre of the bass clarinet and I thought of the main character being trapped inside his mind and the sedatives altering the perception of his senses. I still had some parts from the original composed material that I wanted to use on top of the chords, for instance, the descending line with a solo bass clarinet which was intended to illustrate the stairs in the hypnosis. This part was recorded in front of the dummy head and would therefore be given its own space in the mix as the four chords had two of the involved notes recorded at the ears. I was, however, not so happy with all of the notes in that part so I decided to chop them up and only use the lower ones and since the line is ending on the
lowest note of a symphonic bass clarinet, which is B♭1 (sounding pitch), I felt that it would be great to let that note represent the end of the bass clarinet material (and also symbolically the end of the stairs of a hypnosis session). I also wanted the long stretched last chord to diminish naturally and I felt that timing was very important in the piece and that the long diminuendos, being stretched, should be given time to finish. In the original composition I had written two more notes along with the last and lowest one but they ended up sounding very harsh as we recorded them very close to the ears so I did not include them at all.

I felt that the piece was close to completion but had an idea of just adding some soft hits on my ride cymbal as it has a very bell-like sound and I felt that it may go well with the bass clarinets. I devoted 20 minutes or so to just record different hits and swells with a pair of timpani mallets and as usual, when being in a creative mood, I tried some other things as well. I gently tapped the timpani mallets at the temples of the dummy head and as I was wearing headphones I was astonished how close it resembled the sound of the pulse inside your head. I immediately decided to use this at the end of my opening piece and I came up with the idea of having the pulse beat slower and slower until it stops and then have a gasp and exhalations from the main character before Amber Flowers would start. This discovery made me forget about the use of the ride cymbal for moment but as I remembered it and tried placing a soft beat of the ride along with the last, low note of the bass clarinet, I felt that it was not enhancing the sound at all so I decided to leave it out and carry on with recording the pulse beats. After doing so I placed them at the middle of the last chord of the bass clarinets and slowly faded in as the chord was decreasing in volume. I loved the effect and it almost made me a bit sick as I thought the pulse sounded very realistic through the headphones.

To finish the whole thing, I recorded the gasp and exhalations using my Rode microphone and now I would finally get to use a special technique I had discovered during the winter. I had been testing some harmony vocals on the track At the Harvest of My Life and since it was just a demo I was lazy and did not bother to dub the two different vocal parts so I thought that I would just copy and move them slightly to avoid some phase issues. But as I thought of it, I realized that I had not been fooling around with the phase altering button before which is included on each track in cubase. So I reversed the phase on the copied track and it did of course extinguish both of the tracks but then I tried panning them left and right and there it was, the sensation of having the vocals inside your head. I was struck with amazement and knew that this was something I wanted to use as an effect and it would certainly be a good contrast to the dummy head sensations. As I was now finishing up the opening piece of my work I inserted the “gasp” recording to appear just after the pulse beats.
have stopped, then I performed the phase reversion technique and I was done.

5.5. Recording Dr. Malcolm Johnson

When I worked with my research plan for this thesis in May 2014, I wrote that I wanted to use speech in some way. At the time I did not know exactly what that would be but I knew that I would want to record it with the dummy head to further enhance the immersive aspects of the work. As the winter came I started thinking of how I would solve the speaking parts. I came up with the idea of having a doctor in the story, talking to the main character and I soon started writing the manuscript for the role. I named him Dr. Malcolm Johnson because that was the first name to pop up in my head and I liked it. However, I still did not know who was going to do the talking and it had to be someone with a very good british or american accent to make it sound good and believable. I realized that our counterpoint teacher at school, Gary Verkade, is from America and that he has a great voice that would suit the role perfectly. So I asked him if he would like to record the parts and he said yes before I even got the chance to explain the story to him. The months rolled by and as May (2015) arrived it was time to record Dr. Malcolm Johnson. We used a small absorptive room at school and I placed the dummy head on a mic stand approximately one meter above the floor to replicate the main character sitting on a chair. Gary was well prepared so we started recording immediately and he nailed the parts in just one or two takes. I was very pleased with the result and I felt that Gary had really captured the essence of the character.

6. Discussion

I thought that the creation of the relaxing piece of music was going to be the part of this entire work that would contain most of the ASMR triggers, but as things did not go according to my plans, I feel that I have somewhat failed my task of using ASMR to the fullest in a musical context. However, things did take a different turn and I am very satisfied with the artistic outcome of the opening part A Sedative Overture as I feel that it contributed to the story in a way I had not foreseen. I kind of realized, somewhere during the process of involving the glissando choir into the piece, that it was not going to be as relaxing as I had first intended and that the ominous mood I started to create
when exploring the choir, might have the opposite effect. I am certain that there are better ways to approach the goal of making relaxing music and that it requires something very delicate and light, much more like the mood of the relaxing sessions of many ASMR artists, to be able to place the listener in a relaxed state. I could have gone for a softer sedative but it would not have been as fitting for the story and concept and I liked the result of the choir alongside the bass clarinet too much to consider starting over again.

I feel that the sound of the beating pulse, which I discovered by accident when recording the ride cymbal, was one of the best sounds I achieved during the entire work process. It is very interesting that a sound can fool the brain into perceiving the sensation of the beating pulse in the temples of the head. The fact that the sound was recorded with the dummy head makes it even easier to experience as it is actually beating on your head (in this case with timpani mallets). I should also note that even though A Sedative Overture did not end up being as relaxing as I had intended, I think it may still trigger ASMR in some people because of the sound and recording style of the choir. The stretched chords in the bass clarinets where also recorded binaurally and they could be triggers as well. I think the beating pulse near the end of the piece may be a stressful sound to the listener, especially as it starts to decrease in speed and finally stops. I almost felt the need to gasp for air when that occurred and I was literally scared when I listened through the entire piece and the phase reversed gasp of the main character suddenly broke the stillness of the fading bass clarinet chord and the slowing pulse. However, I think it is a fantastic effect and it really functions as a nice preparation for the following song Amber Flowers, which has a steady up-tempo drive in its first section that I hope will catch the listeners and plunge them straight into the sky-like ocean.

The possibilities of using technology in this type of work is invaluable. This kind of brain tingles would not have been possible to achieve without the technology of dummy heads and headphones. The only way to come close to the experience acoustically would be if you would place yourself in a dead room with 20 people standing about 20 centimeters all around you and breathing heavily at you. But then again, you would probably not be as relaxed and focused on the sounds as you got 20 persons standing so close to you and thus taking a lot of attention from the actual sounds and triggers. I still think, however, that such a set-up would be able to create some tingles because of the closeness of the persons but it would not be as useable as the technological approach because of the many persons being involved to satisfy just one listener.

I decided not to include the bass flute since the result of using instruments close to the ears did not
turn out the way I had hoped. The keys of woodwind instruments are very noisy when you don't want them to be (as in the case of recording the bass clarinet) and they can be quite insufficient and too soft in volume when you intend to use them as an effect in a piece. I believe, however, that it would be more effective to use instruments in this way if I was to record all the songs binaurally in a room that I would want to hear (and not in a dry booth). That method would work better with acoustical music and not with rock drums and electric guitars. I did a test recording (in my living room) of the song; *By the Blue Plains* in May 2014, when I had first borrowed the dummy head. I was curious to see how it would sound to record several layers of instruments and vocals at different locations in the room but with the dummy head placed at the same location. I did several takes of acoustic guitars and vocals (and even some beating on the couch with drumsticks) and it sounded quite nice but very much like a living room of course. However, the idea of recording in this fashion was fascinating and it would be fun to make a whole album using this technique in the future.

For me, *The Silence Upon These Walls* turned out to be the ultimate case of using sound environments and effects within a song since the music and sounds took up about the same amount of attention and without being in the way of each other. It was also a nice thing to be able to move to another location during the song and thus using it as a transition in the story which is something that I realized quite late in the process would be great to utilize further. I was kind of hooked up on having all the walking parts connect with the arrival and process of the interrogations but as I started thinking about it, I realized that the transitions between two scenes in a motion picture, may be very artistically performed at both the filming and cutting stage of the process. This is something I will take into account the next time I make a conceptual work. Something I noted about carrying the dummy head to record the main character was that it does not sound exactly as if you were the person (when listening to the recording) since the sounds of the footsteps are not heard through the body but only as reflections of the sound waves. This is something that I would like to experiment with further and perhaps build a dummy person instead of just a dummy head. One easy way would be to use in-ear microphones and just use my own body but as I have looked for some microphones of this kind I have yet to find a pair with a low noise ratio. I have listened to some recordings on YouTube made with the Soundman OKM II in-ear microphones and they sound good but very noisy. The problem with great microphones in small sizes (like those of the KU 100) is the price, and I would not have been able to use the dummy head in this work had it not been available at school.

Gary Verkade did a fantastic job interpreting Dr. Malcolm Johnson and I feel that those recordings
really created the extra dimension I wanted in this otherwise musically driven work. Something I do regret however, is that I did not fully use the possibilities of talking close to the dummy head. I think I could have triggered a lot of ASMR by writing a more extensive manuscript containing several triggers but on the other hand, it would have taken up a lot of space in the concept and the work would have been too long. I also wanted the songs to take up most of the space as the lyrics make up the larger part of the storytelling.

I have been looking around for other people using ASMR in a musical context and I found an article published in March 30, 2015 on the website http://asmruniversity.com. It mentions an orchestral piece written by Jocelyn Morlock who is composer in residence of the Vancouver Symphony Orchestra. She has titled it That Tingling Sensation which refers to ASMR but unfortunately (as I write this) the piece is not yet published so I have not been able to listen to it. I found her own description of the piece in an interview:

**That Tingling Sensation (2014)**

The inspiration for this piece stems from the fascinating human experience of being physically thrilled by music. When an experience moves or enthralls you, your hair stands up, and you feel the music viscerally. I think this is likely the great reason why people love music – that inexplicable visceral reaction to beauty, to energy, to lovely or powerful sound. (This reaction is known as an ‘autonomous sensory meridian response’, in case you’re planning to Google it.) I’ve named my piece out of love for this ideal, and for the kaleidoscopic and electrifying palette of sounds the orchestra can create.

In the same article at http://asmruniversity.com I also read about a song called Terrors in My Head by the electronica artist deadmau5. It includes some speaking from the ASMR artist GentleWhispering. I listened to the song but was quite disappointed by the result as only a short section of the song featured GentleWhispering and I felt that the sound quality of her speaking was too bad for my taste and therefore did not result in any triggering. I also found another composition including ASMR called The Auracle's Song by The Auracle ASMR. It is made up of a monotonous pattern of a singing voice and with some layered whisperings and mouth sounds. I was not triggered by the song, however, I think I could be, but only because of the mouth sounds and whisperings. The repetitive pattern of the singing voice is just annoying in my opinion and should it be excluded, the song would not have been a song anymore. I think that ASMR could be more extensively used when composing a piece with that ingredient as it has a lot to offer. I do not feel that I have created a
composition with ASMR as a building stone in this work since I use ASMR in the regular way, as a sound effect, more than an instrument in a piece of music. I would really like to make music in this fashion and see if it is possible to trigger ASMR when merging the sounds and instruments into a thoroughly composed piece.

As I mentioned earlier, I had thought that the relaxing music would contain most of the ASMR triggers, but I think that one can find triggers throughout the entire work. It is really a matter of individual perception and how receptive one may be to ASMR. I have only been able to use myself as a testing person and evaluate how well my intended triggers have worked. I do feel, however, that the purpose of being immersed when listening to Adrift in the Sky-like Ocean has been filled and that the combination of music, vocals, sounds, speech and the way of having everything tied together without silence between the songs, is really pulling me in to the story and the mood (even though I am the creator).

7. Afterword

I feel that the outcome of this work has resulted in many inspiring ideas for future projects that did not fit within this already extended piece of work. The market for music created solely for headphones is perhaps not very large but I think that the internet, and especially YouTube, will contribute to the spreading of this kind of music with integrated sound effects and ASMR. There are many different ways to work with a project like this and one thing I would like to try, is the layering of acoustic instruments I mentioned earlier, to achieve a total binaural environment. I would also like to make an ordinary album (CD) without the 3D environment to be able to listen to the music through speakers, still with the integration of sound effects and environments within and between the songs. I intend to keep creating immersive conceptual music and Adrift in the Sky-like Ocean was just the beginning.
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Interview with Jocelyn Morlock: http://barczablog.com/2015/01/07/10-questions-for-jocelyn-morlock/

Musical compositions including ASMR
deadmau5 – Terrors in My head: https://www.youtube.com/watch?v=UR82yjGSScc

Appendix

1. *Adrift in the Sky-like Ocean* (the conceptual work of music)
   
   [https://www.dropbox.com/sh/lyd5vdahkmkwitq/AACVOSkpL3fDlaZwQJ0YVBIna?dl=0](https://www.dropbox.com/sh/lyd5vdahkmkwitq/AACVOSkpL3fDlaZwQJ0YVBIna?dl=0)

2. The original score of *A Sedative Overture*.

3. The lyrics.
JONAS OLOFSSON

A Sedative Overture
- Adrift in the Sky-like Ocean -

Instrumentation

Bass Flute
Clarinet in B♭
3 Bass Clarinets in B♭

Duration: 2 minutes
A Sedative Overture

- Adrift in the Sky-like Ocean -

\[ \text{} \quad \text{ppp} \quad \text{mp} \quad \text{ppp} \]

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\[ \text{} \quad \text{ppp} \quad \text{mp} \quad \text{ppp} \]

\[ \text{} \quad \text{ppp} \quad \text{mp} \quad \text{ppp} \]
ADrift IN THE SKY-LIKE OCEAN

- LYRICS -

* 

AMBER FLOWERS

Lonely hours by the window.
Amber flowers carried by the wind.
I've been locked inside this place for 15 years.
And no one has ever come to see me here.

Mother, father where have you gone?
Don’t you ever miss your son?
The burning leaves are carried out to sea.
And I can feel the ocean holding me.

Look at the child, he’s trapped inside his mind.
Leaning on the glass, dreaming of the past.
But now the light is getting rid of the gloom,
as the morning sun ascend inside his room.

* 

A SUBCONSCIOUS GAME

They detest my life.
I'm a subject to the vile.
I can see their ways.
Luring me into denial.

I cannot feel any difference from the yesterdays,
they all feel the same...empty plains.
No one’s ever really understood my case,
they all say the same...“a subconscious game”.

Lonely hours.
Sundered by the pain.
So I close my mind again.

* 

GIANTS UNDER STARS ALIGNED

Stones, grey stones.
Servants from the ground.
Scattered on the mound.

There, they march.
Passed the oak and down.
Crossing meadows on their run.

The sounds, now the skies collide.
Run, to the trees inside.
Lights, now they have arrived.
Hide, they will catch your mind.

Dreamy eyes across the mire.
Mother is waiting from the other side.
Distant eyes upon the sky.
The others are waiting on the other side.
Warm light descend from the heights
blowing life into the white-haired child.
And though his body is frail
all the servants hail to the master of the trail.

Glow, up there.
Adrift a distant star.
Across the heavens like a scar.
Stones, great stones.
Collected in another time.
Giants under stars aligned.

The sounds, now the clouds collide.
Run, to the trees inside.
The lights, now they have arrived.
Hide, they will catch your mind.

Dreamy eyes across the mire.
Mother is waiting on the other side.
Distant eyes upon the sky.
The others are waiting on the other side.

Warm light descend from the heights
blowing life into the white-haired child.
And though his body is frail
all the servants hail, to the master of the trail.

* *

BY THE BLUE PLAINS

I remember one day in July 25.
I was sitting by the edge between the earth and sky.
I saw a man approaching from the grime,
glaring at the sand and asking if it’s mine.

Then I saw another man appearing by his side.
Looking like the other one but with a broken smile.
He reached down with his arm to grab something from the sand.
A seashell on the shore, a piece he’d never seen before.

Ohh, here by the blue plains,
they must have traveled from afar, a distant space, another star.
Ohh, they had the answers.
Should we meet again I’ll ask them to explain.
Ohh, by the blue plains they arrived.

I recall that certain day, by the ocean I had found.
I was sitting with my feet closer to the tide.
One of the men was waving with his signs,
and the other one started drawing lines.

Then I saw flashing lights appearing from the heights.
A distant ship arrived but soaring like a kite.
There stood a hundred men looking all the same.
Staring at my eyes and asking if they’re mine.

Ohh, here by the blue plains.
They must have traveled from afar, a distant space, another star.
Ohh, they had the answers.
Should we meet again I’ll ask them to explain.
Ohh, by the blue plains I’ll remain.
THE SILENCE UPON THESE WALLS

I leave the world so I can be cured.
The silence upon these walls and the loudness within my halls.

I dream again so I won't pretend.
The silence upon these walls and the sadness from the wards.

LIGHT THROUGH THE WINDOW

Light through the window of my room, finally.
I'm straining my ankles as I'm reaching out to search the sky.
A glimpse of a giant star, it is closing in on my ward.
No more constrainments, I am soaring out through the walls.

Now I float towards the light,
I disappear into the night.
The colors of the sea below merges with the distant glow.

SUNSAILS / ADRIFT IN THE SKY-LIKE OCEAN

Sunsails.
Deep vale.
Inhale.
Storm signs.

GREEN SHORES AHEAD

I'm passing the vale to reach the light.
I can feel the presence of the waves.
I'm breaking the surface of the sea
and I find that the signs of the stars have changed.

Thanks to the ocean, I am free.
No more depressing sedatives.
Now I can see.

Green shores rise from the sky line.
Will the sea bring me home?
Grey strands on the horizon.
Will the sun explode in the sky?

I'm lying upon the ocean bed.
I can hear the silence within my head.
I'm watching a seagull passing by
and I notice a flower upon the waves.

Sailing beside me in the stream.
It's like a memory or a dream.
I follow the leaves.

Green shores rise from the sky line.
Will the sea bring me home?
Grey strands on the horizon.
Will the sun explode in the sky?
Green shores rise from the sky line.
Will the sea take me home?
Grey strands on the horizon.
Will the sun dissolve in the sky?

Look at the child he's free once more.
Floating towards the distant shore.
Even the sky begins to smile
and now the darkness seems to die.

Green shores rise from the sky line.
Will the sea bring me home?
Grey strands on the horizon.
Will the sun explode in the sky?

Green shores rise from the sky line.
Will the sea take me home?
Grey strands on the horizon.
Will the sun dissolve in the sky?

* 

A SEASHELL IN MY HAND

Now I’m sitting on the edge of this new found shore.
I can see the sun explode above the ocean floor.
Was it all just a dream where I descended into the sea,
and have my life returned again with answers I may keep?

Wait, I see another man sitting further down.
His face is drowned in light from the morning sun.
I approach him slowly and find something lying in the sand.
Now I am the future man with a seashell in my hand.

Ohh, they were my blueprints.
Traveling from another sky, another sea, another time.
Now, I’ll have the answers.
I will see the men and meet myself again.
Now, I have the answers.
Now I know.

* 

AT THE HARVEST OF MY LIFE

The sky is grey
and I find myself standing by the meadow once again.
The oak still stand,
reaching for the heavens all alone.

This place has changed
and my hair has grown darker by the years.
My servants lie dead on the ground, turned to stones.

The silence break
and I can see the birds flying, leaving home.
I climb the stones
and the wind lifts me higher towards the clouds.

Now I find that I've come home,
again I stand atop the stones.
The white-haired child has now come home,
   again he stand atop the stones.
Across the mire he see the light,
his childhood dreams are now in sight.
   Amber flowers from the heights,
carried through eternal nights.
Lost in dreams he stand alone,
as the sun descend below.

*